DIMENSION

Bert & CDR
Optical Performance Test
Return Loss And Polarity Test
Fiber Endface Interferometer
Fiber Cleaning
Fully Fiber Endface Inspector
Desktop Fiber Endface Inspector
Portable Fiber Endface Microscope
Concentricity Core Tuner
Optical communication operation and maintenance tools

Dimension Technology Co.,Ltd

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Bert & CDR

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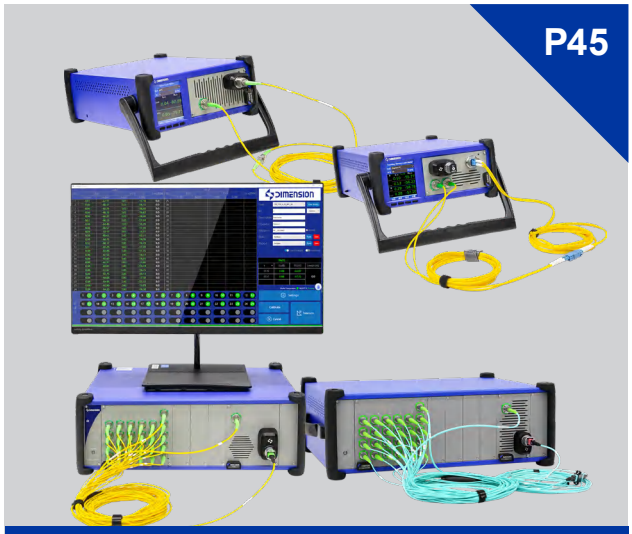
Optical Performance Test



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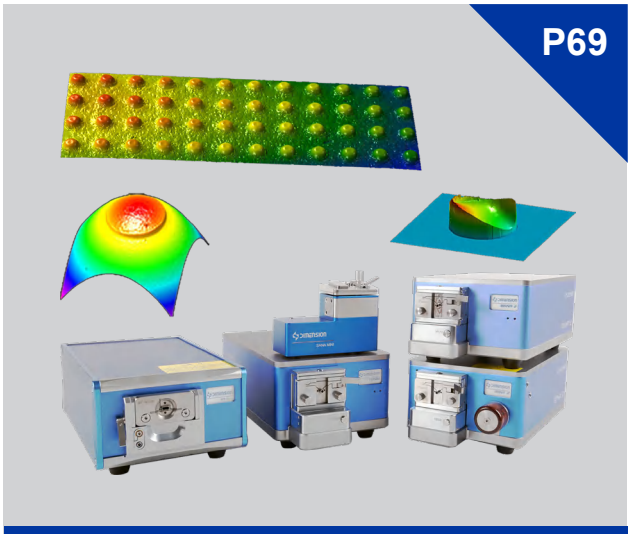
Return Loss And Polarity Test



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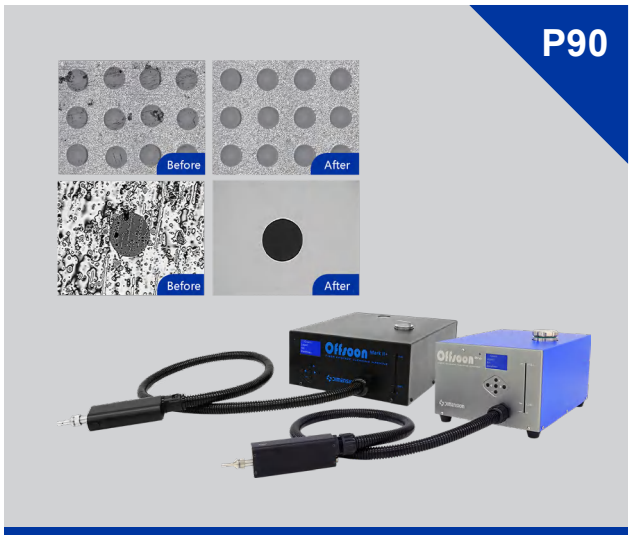
Fiber Endface Interferometer



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BERT 800
800G Bit Error Rate Tester

Optical communication has become the backbone of modern communication technology due to its low transmission loss, high capacity, and fast speeds. As transmission rates continue to accelerate, accurately measuring bit error rates in optical modules is crucial to ensure reliable performance. Dimension Technology's BERT800 bit error tester series offers a comprehensive solution for testing and verifying high-speed optical transceiver modules. These versatile devices can be used in various applications, including mass production, performance verification, and reliability testing. By combining a universal control board with interchangeable interface boards, the BERT 800 series provides a flexible platform for testing bit error rates, configuring module parameters, and monitoring module status.

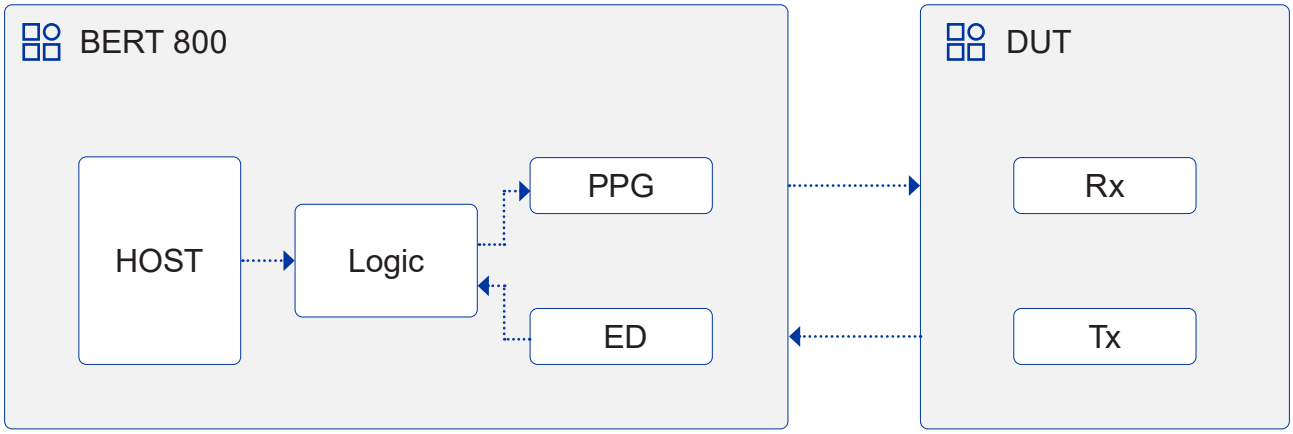
Key Features

- Use control board and replaceable interface board to reduce long-term use cost
- Flexible configuration, support transceiver modules with different packages such as 800G OSFP, QSFP-DD, QSFP28
- Support 800GbE to 100GbE
- Available in production and portable types, suitable for mass production, performance verification, reliability testing, etc.
- Use optimized PHY chip and optical module heat dissipation design
- Provide standard communication protocol, can be easily integrated with test system
- Support NRZ/PAM4, multiple PRBS code types are optional
- Support FEC, support multiple equalization methods
- No high-speed cable required
- Simple user interface

Applications

- Mass production of 800G-100G optical transceiver modules
- R&D and verification of high-speed optical transceiver modules

Flexible And Cost-Effective



The BERT 800 series bit error tester employs a modular design, featuring a control board and interchangeable interface boards. This flexible architecture allows for testing a wide range of optical transceiver modules with different packages, including OSFP, QSFP-DD, and QSFP28. Optimized for high-frequency performance, the BERT800 series effectively manages consumable costs while ensuring accurate data transmission. When the optical module connector reaches its service life, simply replace the corresponding interface board to extend the system's lifespan and reduce long-term operating costs.

Various Test Options

The Dimension BERT800 utilizes a host computer system to control the pattern generator and error detection unit, enabling comprehensive testing of 800G-100G optical transceiver modules. This system supports various coding modes, including NRZ and PAM4, and offers a range of pseudo-random code patterns, such as PRBS7, PRBS9, PRBS21, PRBS23, PRBS31, and PRBS58.

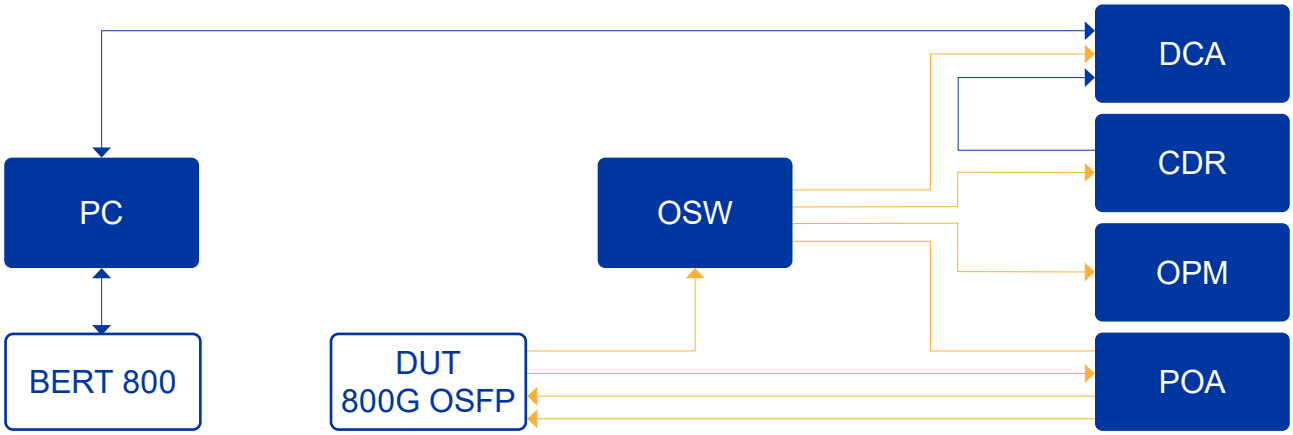
Packages	Interface Board	Supported Transceiver Modules
OSFP	OSFP	112G/800G PAM4 OSFP, 56G/400G PAM4 OSFP
QSFP-DD	QSFP-DD	112G/800G PAM4 QSFP-DD, 56G/400G PAM4 QSFP-DD
QSFP28	QSFP28	QSFP28SR4

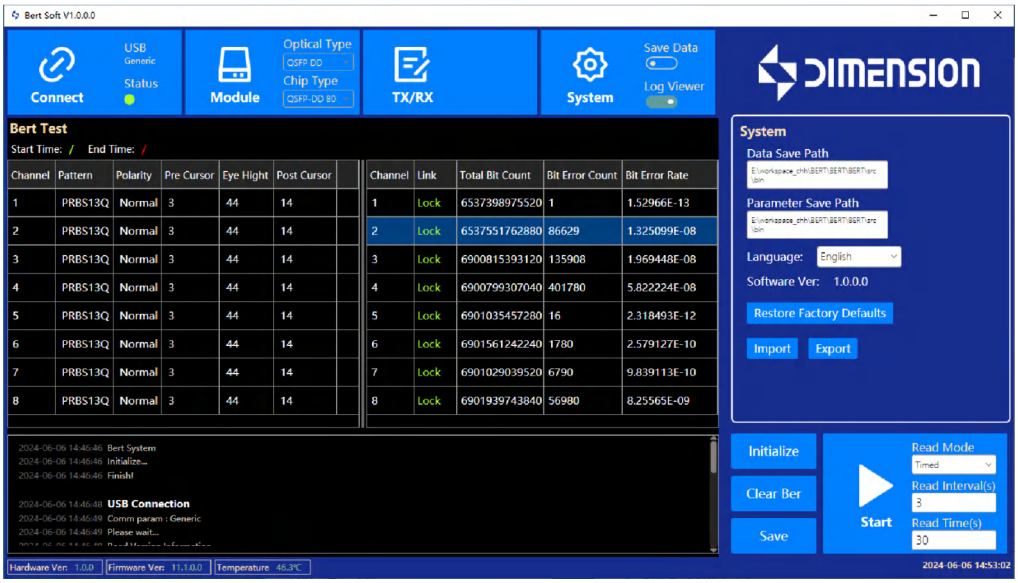
Portable Model

Production Model

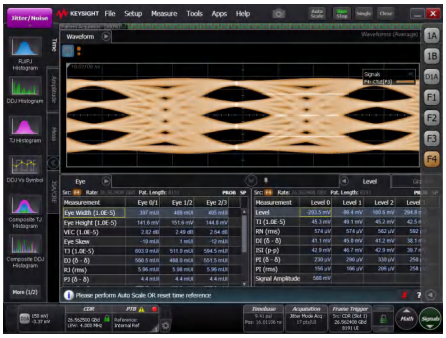
Diverse Scenarios of Applications

Dimension Technology's BERT800 series offers both production-grade and portable models, catering to various applications including mass production, performance testing, reliability verification, and field deployments. The series incorporates a robust heat dissipation design for PHY chips and optical modules, ensuring long-term stability and reliability. Dimension Technology's BERT800 series adheres to standard communication protocols, enabling seamless integration into customer test systems and accommodating personalized testing needs.

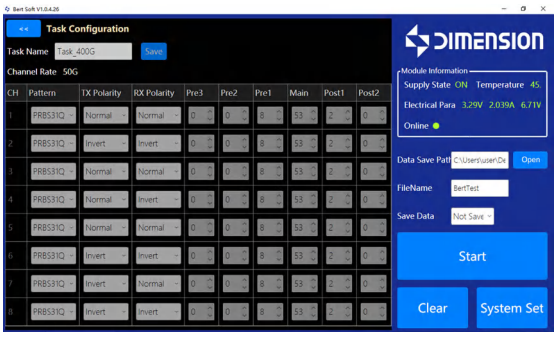




BERT800 User Interface



BERT800 Eye Diagram



BERT 800&Thermal Tester

Specifications

Specification	ParameterW
Mode	800G BASE-R; 400G BASE-R; 200G BASE-R; 100G BASE-R
Modulation	NRZ/PAM4
Tx/Rx Connectors	QSFP DD, OSFP, QSFP28
Date Rate	PAM4: 53.125GBaud; 26.5625GBaund; NRZ: 25.78125Gbps
Patterns	SSPRQ, PRBS58, PRBS31, PRBS23, PRBS15, PRBS9, PRBS7, PRBS31Q, PRBS23Q, PRBS15Q, PRBS13Q
Tx Amplitude	200~950mVpp
Clock Divider	2~1024
Module Power Supply	3.3V
Module Power Supply	10A
Module Communication	I^2C , ≤400K
Communication	USB, RS232, TCP/IP RJ45
Power Supply	24V/3A
Dimensions (LxWxH)	Production Model: 398mm*200mm*85mm; Portable Model: 215mm*104mm*90mm
Weight(kg)	Production Model: 2KG; Portable Model: 5.2KG;
Operational Temperature	5°C - 40°C
Storage Temperature	-20°C - 70°C
Humidity	20% - 85%
Power Supply	220/240VAC, 50W

Order Info

BERT 800 — [ ] — [ ] — [ ]

Model	
1	Production
2	Portable

Interface	
1	QSFP-DD
2	OSFP
3	QSFP28

Speed	
1	800G
2	400G
3	200G
4	100G

Example:
BERT 800-1-1-1
BERT800G Bit Error Rate Tester has the interface board for 800G QSFP-DD transceiver module. It's equipped with adapter for thermal cycling tester.

Accessory Order Info

BERT 800 — [ ]

Interface
QSFP-DD
OSFP
QSFP28

CR600

60Gbaud Optical/Electrical Clock Data Recovery Unit

The Dimension CR600 Optoelectronic Clock Recovery Unit supports both NRZ and PAM4 modulation formats, with the capability to recover optoelectronic clock up to 60 GBaud. The system integrates single and multi-mode OE conversion circuits, and clock recovery circuits, making it suitable for both electrical and optical applications. The unit meets the stringent requirements for high sensitivity and low inherent jitter, ensuring excellent measurement accuracy. With a user-friendly interface, it is easy to configure and use. Whether you're testing computer systems, optical communication systems, or verifying standards compliance, the Dimension CR600 Clock Recovery Unit offers an outstanding, highly reliable, and cost-effective clock recovery solution.

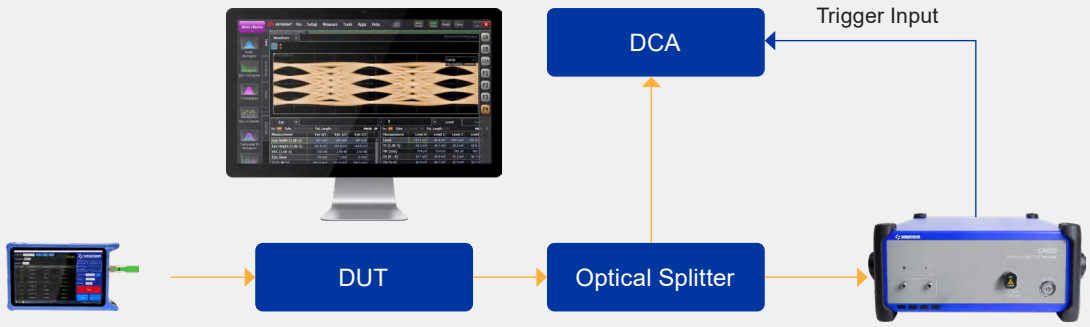
Key Features

- Supports NRZ and PAM4 signals, with rates up to 60Gbaud
- Compact, portable, and easy to use
- Integrated OE and clock recovery design
- Supports single/multi-mode optical signals with sensitivity better than -10dBm
- Ultra-low random jitter < 250 fs RM

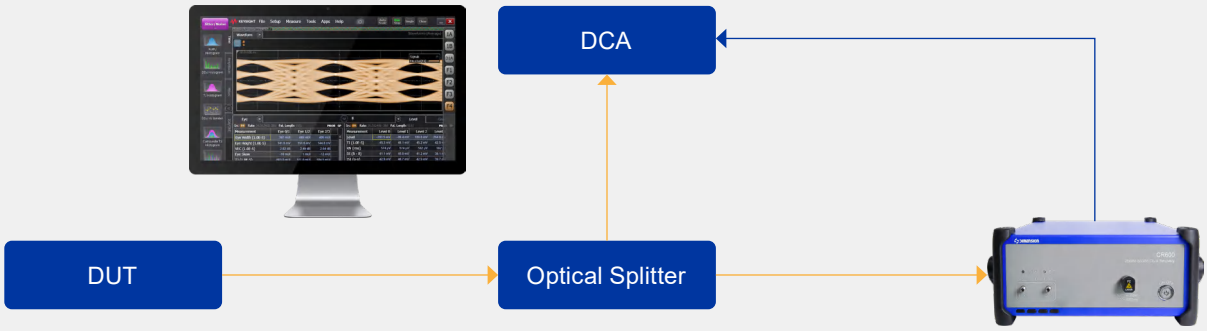
Applications

- Optical Transceiver Module
- Subsystem Clock Recovery
- Eye Diagram Test

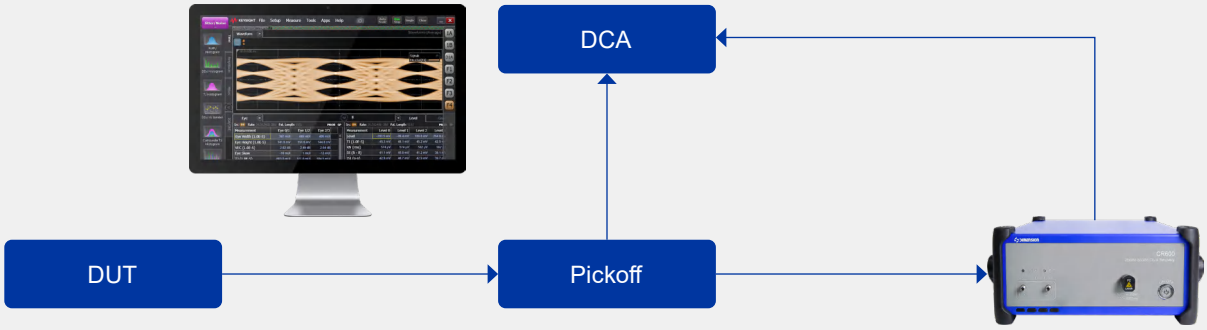
Typical Application: 800G Eye Diagram Test



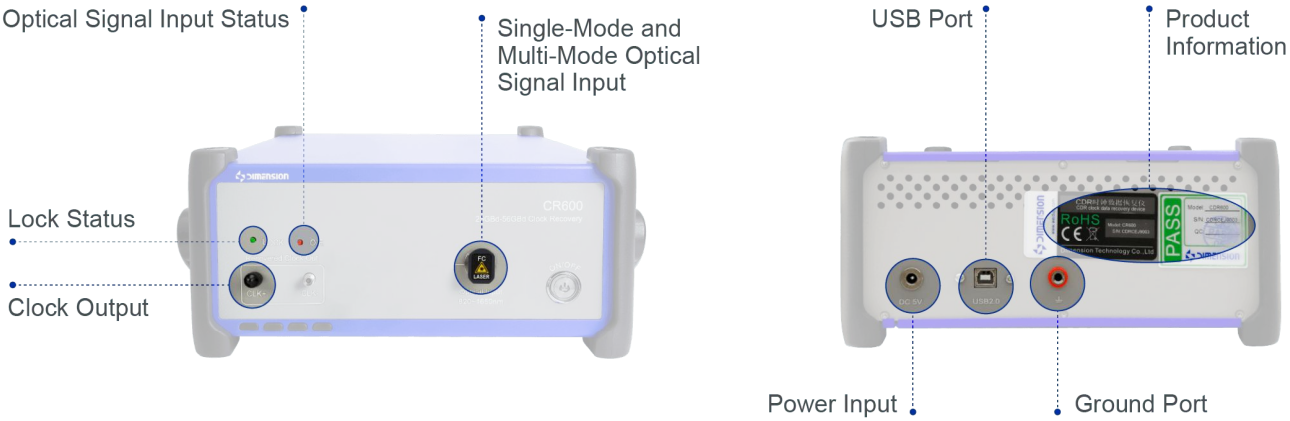
Optical Eye Diagram Testing



Optical Eye Diagram Testing

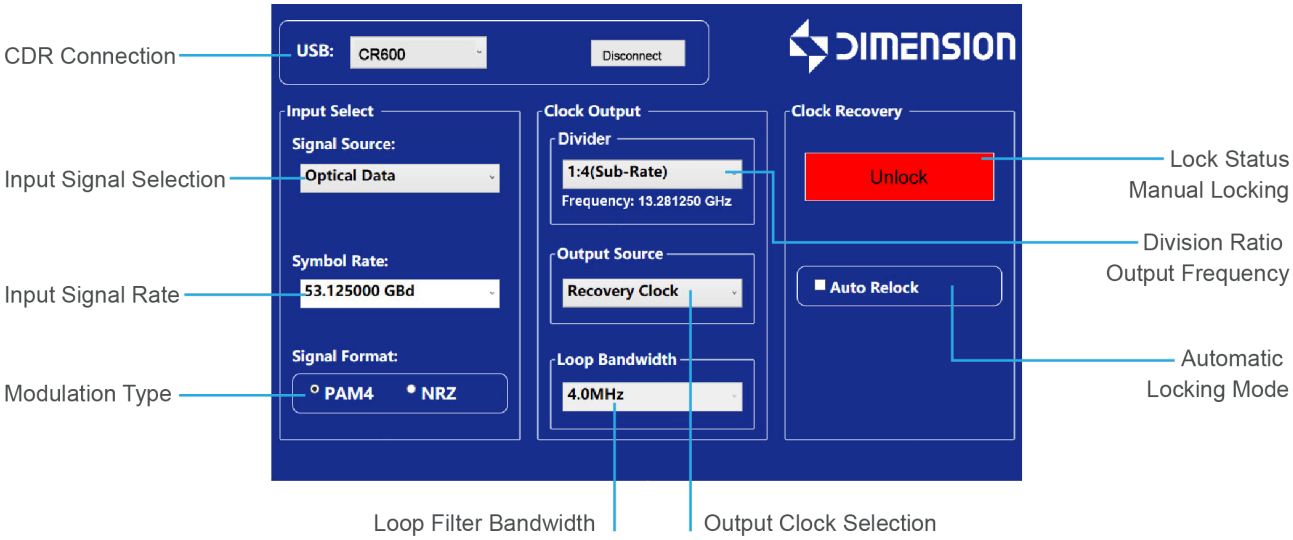


Panel Introduction



Panel Introduction

The CR600 provides a simple user interface, allowing easy parameter setting and selection, while intuitively displaying the operating status and relevant parameters of the clock recovery unit.



Communication Protocol

The CR600 comes with a comprehensive communication protocol, which allows users to set various parameters and read the operating status of the unit via the USB port. Program examples are provided, enabling users to easily integrate the CR600 into their testing systems.

Code Example:

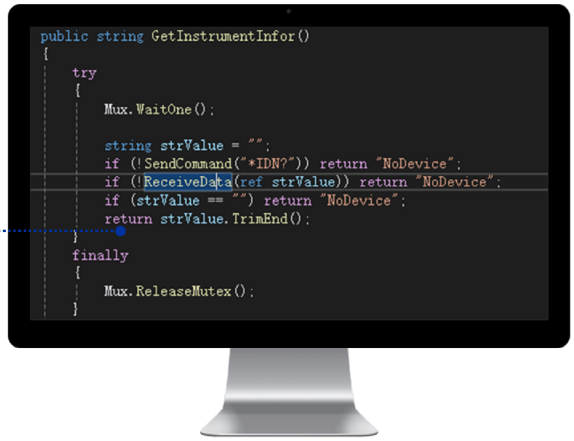
15.*IDN?

Return system information.

Send: *IDN?

Return: CR600 CDR, HW Ver:1.0, FW Ver:1.0

```
string strValue = "";
if (!SendCommand("*IDN?")) return "NoDevice";
if (!ReceiveData(ref strValue)) return "NoDevice";
if (strValue == "") return "NoDevice";
return strValue.TrimEnd();
```



Specifications

Electrical Parameters	
Data Rate Input Range	24~30Gbaud; 48~60Gbaud;
Modulation	NRZ/PAM4
OE Output Connector Type	2.92mm female,50 Ω
OE Output Amplitude	400mVpp @56GBd
Clk In Connector Type	2.92mm female,50 Ω
Clk In Amplitude (Max.)	600mVpp @56GBd
Clk Connector Type	2.92mm female,50 Ω
Clk Amplitude (Diff.)	700mVpp @26.56GHz
Clk In Sensitivity (Diff.)	100mVpp @56GBd

Recovered Clock Divide Ratio	1/2、1/4、1/8、1/16、1/32、1/64
Output Random Jitter	<230fs @13.28GHz
Loop Filter Bandwidth	4MHZ
Standard Signals	±100ppm
Auto Reclocking	Yes
Internal Clk Output	Yes
Clk Diff. Output	Yes
Optical Parameters	
Data Rate Input Range	24~60Gbaud
Sensitivity	-12dBm@53.125 Gbaud PAM4 SM -10dBm@53.125 Gbaud PAM4 MMS
Optical Signal Type/mode	Ingal-Mode, Multi-Mode
Wavelength Range	820~1650nm
Return Loss	<16 dB
Optical Connector Type	SM: FC/PC 9/125um, MM: FC/PC 50/125um
Others	
Operating Temperature	10'C to +40'C(50'F to +104°F)
DC Power Supply	12V
Humidity	95% RH, non-condensing
Communication Port	USB、LAN
Power Consumption	6W

Orderinfo

Model	Description
CR600	60Gbaud Optical Electrical Clock Data Recovery Unit

FreeDesign Intelligent Instrument Development Platform

Modular Chassis for Customizable Test & Measurement Solutions

Dimension Technology's FreeDesign Intelligent Instrument Development Platform adopts a 1-chassis + N-modules architecture, empowering users to efficiently develop and deploy versatile test & measurement systems tailored for optical communication applications. This compact, PC-sized platform integrates multiple measurement modules, enabling flexible customization for R&D, automated production testing, and high-speed optical component validation.

FreeDesign Where can it be applied?

FreeDesign provides high performance, high precision, high degree of freedom of testing methods; can meet the needs of various testing scenarios, and give you the most extensive creative space.

- Custom optical test instruments
- Real-time production monitoring
- R&D labs

Key Features

High Compatibility

The FreeDesign Intelligent Instrument Development Platform is compatible with all existing test modules from Dimensional, as well as user-developed modules based on USB interfaces. Breaking traditional limitations, it adopts a standard USB protocol for communication, ensuring compatibility with a wide range of test modules and enabling seamless control of all module operations. This truly achieves multi-functionality within a single device and unifies the testing system.

Modular Flexibility

The FreeDesign Intelligent Instrument Development System features a modular design, allowing users to select and combine various measurement modules as needed, making it adaptable to different applications.

Industrial Reliability

FreeDesign system has the characteristics of accurate reliability and robust durability, reliable operation in harsh environmental conditions. The internal heat dissipation system and anti-electromagnetic interference ability of the chassis also help to maintain stable performance and accurate measurement results.

Lab-Grade Design

The FreeDesign chassis and modules feature Dimensional's professional-grade scientific design, optimizing everything from internal systems to user operation, hardware layout, and visual presentation. Simplicity and efficiency are core principles. For example, the chassis includes a built-in gravity sensor, allowing it to operate normally in both horizontal and vertical orientations, maximizing space utilization.

Core Advantages

- **Separate design of hardware architecture**

The platform adopts the architecture of core board + backplane + functional test module, core board communicates the functional test module via standard USB protocol.

- **Platform + module design, multi-application and scalable**

Platform + module design, compatible with optical switch, optical attenuation, light source, optical power meter, BER tester, IL/RL tester, polarity detection and other optical performance test modules, flexible configuration, easy to expand.

- **Hot Plug-pull**

The chassis provide built-in slot identification, power-on control etc., support hot plug-pull of various test modules.

- **Multiple control methods**

The functional modules and chassis use standard USB 2.0 communication protocol, speed can up to 480MB/s. The module control board provides various control interfaces such as USB, SPI, and serial port etc, users can easily integrate their own developed function modules into the control system.

- **Configuration and performance**

The OMEGA test platform's motherboard adopts Intel's sixth-generation Skylake-U, the onboard Core i5 CPU (standard) has excellent performance. The ALPHA test platform adopts ARM + linux architecture, with flexible and convenient display screen for button and touch control.

- **Rich slots**

OMEGA provides 11 slots and up to10 function module positions, ALPHA provides 2 slots and 2 function module positions.

- **Industrial design**

The OMEGA platform is designed in a standard 19-inch 3U chassis, it can be used as rack-mount or desktop testing device to meet customer's different environments.

- **Power supply**

The module supports 24V/2A power supply, can provide 48W power supply for function modules.

Product Introduction

The platform is the foundation of the FreeDesign intelligent instrument development system, designed to accommodate controllers and modules. It provides power, communication interfaces, and efficient heat dissipation for smart instrument development. We offer two platform variants: a 2-slot and an 11-slot version (as well as a simplified version without an embedded industrial PC system) to meet various portable and desktop application needs.

Omega 2.0 Chassis

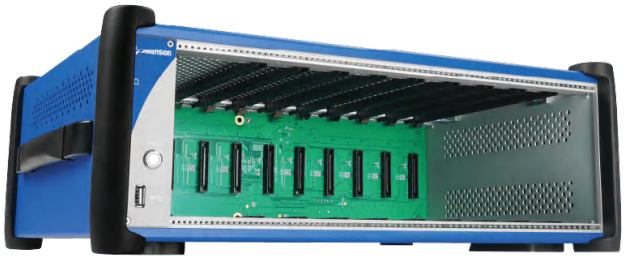
Next-Generation Intelligent Instrument Development chassis

(1) High-Resolution Touchscreen + Independent Control

Compared with OMEGA 1.0, OMEGA 2.0 features a high-resolution touchscreen that allows users tomonitor status, switch functions, and operate modules directly on the platform - eliminating theneed for an external PC or display and enabling more convenient on-site control and debugging.

(2) Supports SCPI commands for easier programming

Now fully compatible with the SCPI standard command set and equipped with a USBcommunication interface, enabling fast integration with automated testing systems. It supportsmultiple programming environments such as Python, C++, and LabVIEW, offering lowerdevelopment barriers and higher system integration efficiency.



Omega Chassis

High-Capacity Intelligent Instrument Development Chassis

It is a high-performance, high-capacity chassis model launched by Dimension, equipped with an Intel i5-6300U 2.4GHz processor (standard) and an optional i7-6600U 2.6GHz processor. It features 11 expandable and programmable slots with 10 module slots and adopts the internationally standardized 3U 19″ test instrument development platform size.

Omega Lite Chassis

High-Capacity Intelligent Instrument Development Chassis

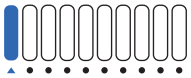
The Omega Lite chassis retains 10 functional module slots and standard communication configurations while removing the processor and chipset. This enhances user development flexibility and cost-effectiveness, allowing for the creation of instruments that better suit the user's research and testing needs within the overall framework.

Alpha Touchscreen

Compact Intelligent Instrument Development Chassis

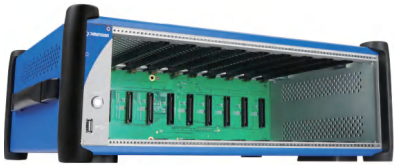
ALPHA is a compact, programmable dual-slot platform that adopts an ARM+Linux architecture. It features a 3.2'' touch display with a built-in GUI, supporting both button and touch control for quick and accurate measurements without the need for additional PC or control devices, making it flexible and convenient. The ALPHA chassis is equipped with a gravity sensor, supporting both landscape and portrait orientations. It is highly suitable for laboratory or small-scale automated production testing environments.

Omega 2.0 Chassis

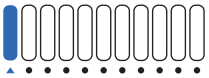


10 Slots 10 functional modules

RK3588J processor



Omega Chassis



11 Slots 10 functional modules

I5-6300U 2.4GHz processor

Alpha Touchscreen

2 Slots 2 functional modules

ARMV7 processor

Model	OMEGA 2.0	OMEGA Lite	OMEGA Chassis	ALPHA Touchscreen
Staructure	3U 19" Industrial standard	3U 19" Industrial standard	3U 19" Industrial standard	NA
Slots	10 Slots, 10 functional modules	11 Slots, 10 functional modules	11 Slots, 10 functional modules	2 Slots, 2 functional modules
Processor	RK3588J	NA	i5-6300U 2.4GHz (standard) i7-6600U 2.6GHz(customizable)	ARMV7
Chipset	NA	NA	Skylake-U	NA
Communication	USB2.0	USB2.0	USB2.0	USB2.0
Serial port	Baud rate: 115200,RS232*1	NA	RS232*1	RS232*1
Network card	TCP/IP, 10M/100M/1000M Ethernet	NA	10M/100M/1000M Ethernet	10M/100M Ethernet
USB	USB-TMC, USB3.0*1, USB2.0*3	USB2.0*1	USB3.0*3, USB2.0*1	USB2.0*2
Trigger interface	Supporting	Supporting	Supporting	Supporting
Power supply	24V/2A	24V/2A	24V/2A	24V/2A
Input voltage	AC 90~260V 50Hz	AC 90~260V 50Hz	AC 90~260V 50Hz	AC 90~260V 50Hz
Size	462mm*374mm*171mm	462mm*374mm*171mm	462mm*374mm*171mm	359mm*274mm*115mm

Modules

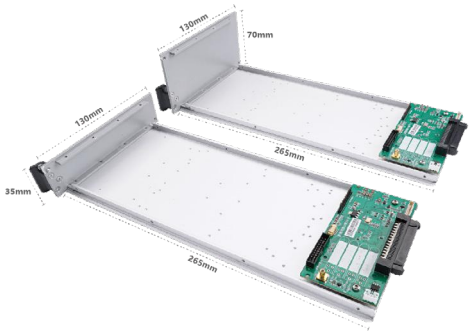
On the FreeDesign testing platform, users can use any function module that is compatible with the USB protocol and packaged according to the specified dimensions. You can build a testing system using Dimension Technology's existing modules, or opt for a custom design approach. Dimension Technology's module upgrade and optimization services will always be with you. We are committed to innovation and development, continuously optimizing existing modules and expanding new features to meet the increasingly complex testing demands and scenarios.

Chassis Customization Service

Both Omega and Omega Lite are designed according to the standard 3U19" size, making them ideal for building large-scale test system platforms. Users can customize models to fit cabinet sizes according to their needs.

Module Custom Development

Based on the FreeDesign chassis, we recommend users design their own modules using a single-slot/double-slot packaging method, which efficiently utilizes the chassis space while ensuring compatibility. The dimensions for single-slot/ double-slot modules are 265mm×130mm×35/70mm. If needed, you can design multi-slot modules according to your specific requirements.



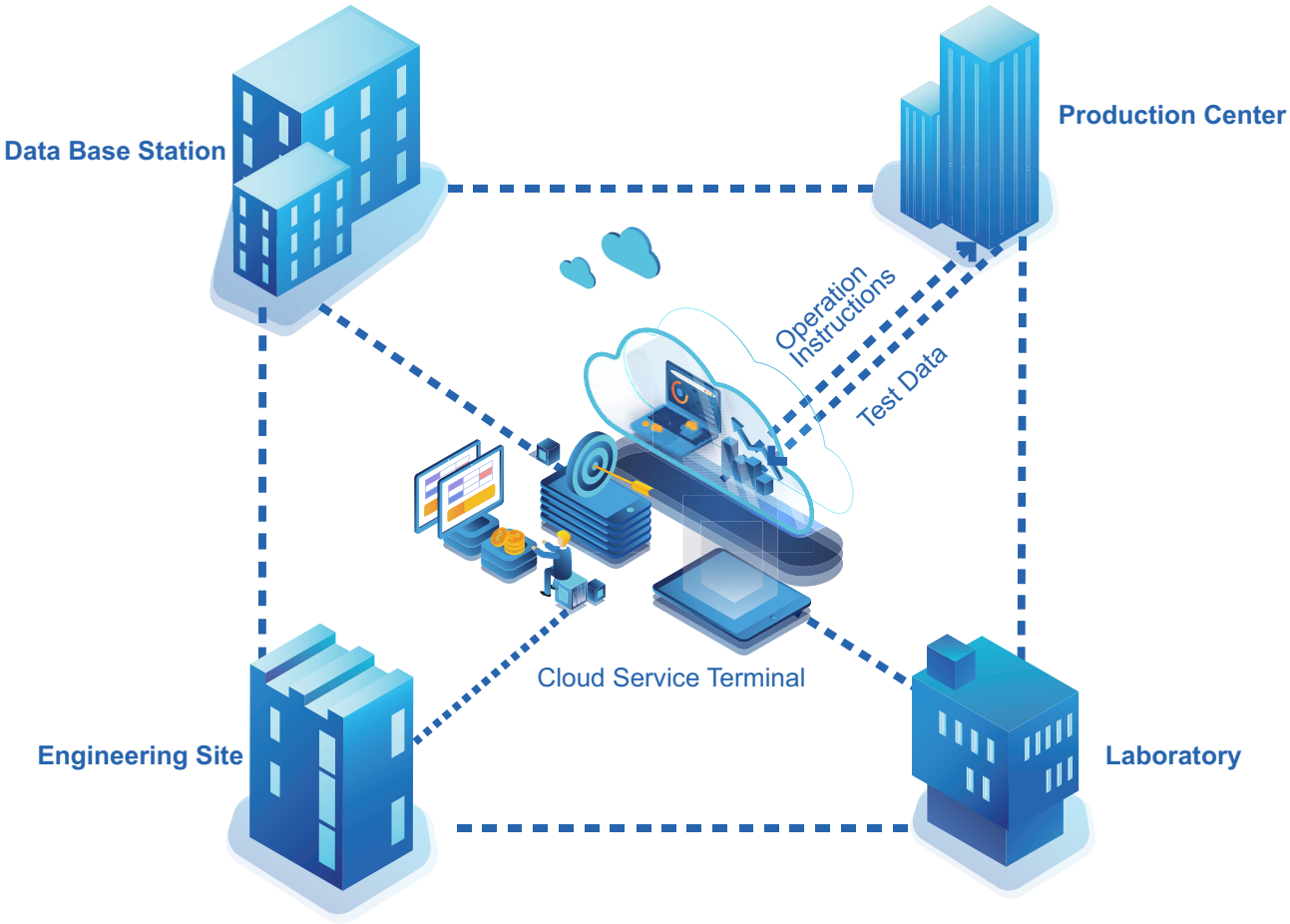
Controller Software

The Omega series test chassis uses OmegaController software to display and control various modules on the PC end. It allows for fast data acquisition and processing of different modules on the software, facilitating quick interactive measurements with users.

The Alpha series test chassis can also use AlphaController software to operate test tasks on the PC end. Through the software, multiple test platforms can be easily interconnected, helping you develop your intelligent testing system.

Cloud-based Testing System

Building a Future-Ready Cloud Testing Network for You



Based on the comprehensive development of 5G networks and cloud data, FreeDesign supports cloud testing functionality. Users simply need to input the physical address of each device into the network system, log in using standard software, and remotely control every test instrument from thousands of miles away. The instrument's test data can be uploaded to a cloud data storage center, allowing engineers to analyze and process this data from any computer connected to a private network, achieving cloud-based interconnectivity of testing devices.

TopLight
Tunable Laser Source

Product Description

TopLight tunable laser source is the first product of this series developed by Dimension Technology integrating sixteen years of professional experience in the field of optical testing. It has the characteristics of high wavelength accuracy, fast scanning speed, high output power stability, and no mode hopping in the entire wavelength band. The product is highly integrated, compact in size, and flexible in control. It is equipped with high-speed power meter and bias meter from Dimension Technology.

Main a Dvantages

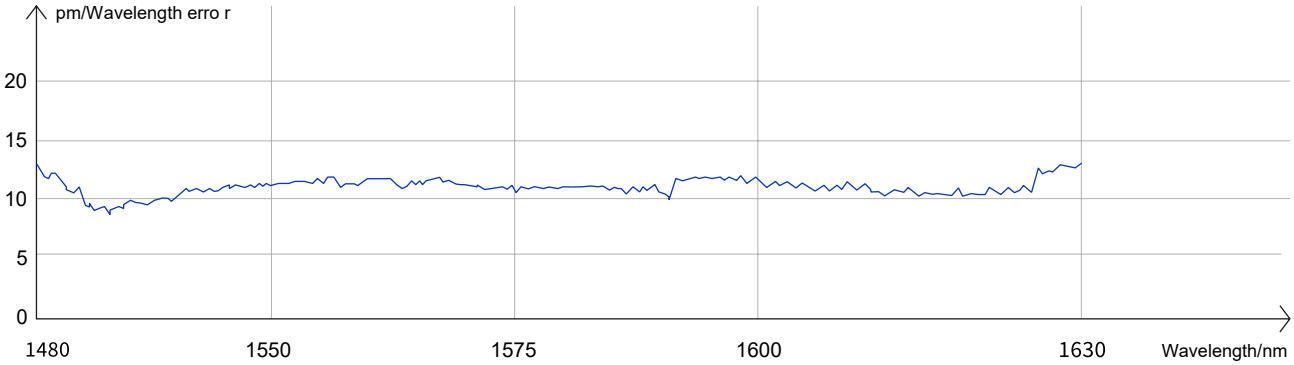
- Wavelength accuracy ±20pm
- Scanning speed up to 200 nm/s
- High signal-to-noise ratio
- Mode-hop-free with rapid sweeps up to 100 nm/s
- Wide wavelength tunable range

Main Applications

- WDM scanning test
- Wavelength dependence test
- Optical characterization of components and modules
- Specific wavelength output
- Spectroscopy

Ultra-high wavelength accuracy, Repeatability and stability, Stable output power

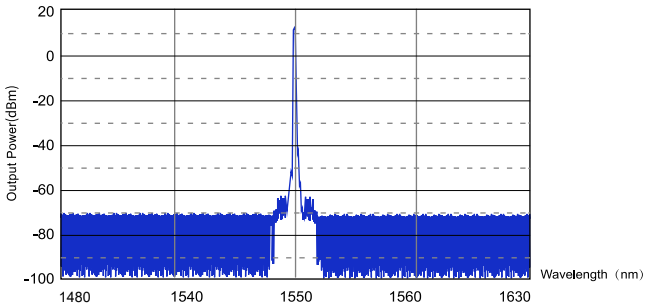
TopLight's tunable laser source ensures that the wavelength accuracy of the light source can reach ±20pm through precise electromechanical control. The repeatability and stability of the wavelength remain reliable even during high-speed scanning. In different test environments, TopLight can also compensate for environmental changes to ensure stable and reliable wavelength accuracy.



The output power of the light source is strictly fitted to the wavelength correlation to ensure that the flatness of the power curve is higher than 0.2dB/nm, reducing the error caused by power to the test system.

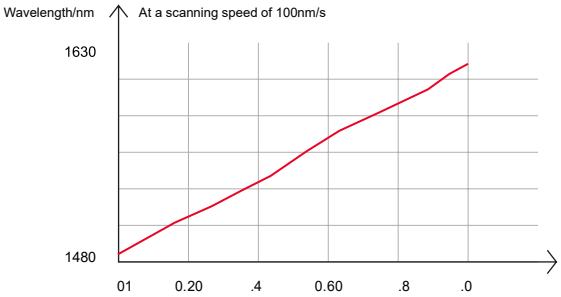
High output spectrum signal-to-noise ratio and side mode suppression ratio

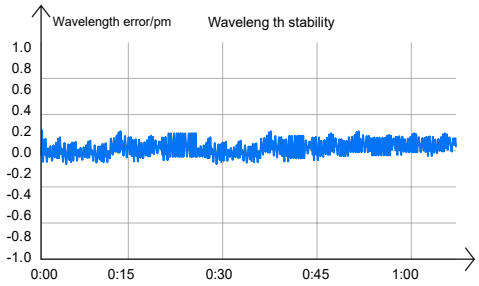
TopLight uses the principle of external cavity resonance to tune the wavelength. Through precise optical and electromechanical control systems, it ensures that the narrow linewidth laser output from the resonant cavity always has a good signal-to-noise ratio and side mode suppression ratio, providing an excellent system for rigorous wavelength scanning. test environment and conditions.



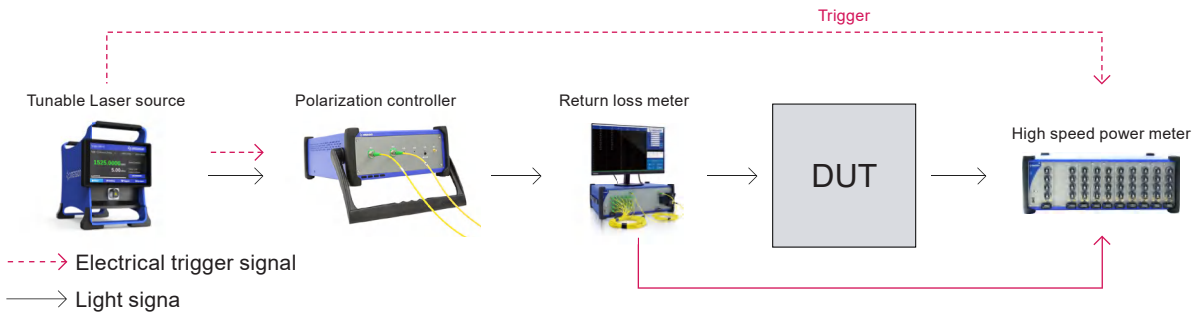
Achieve mode-hop-free within the entire band, Ensuring continuity of the wavelength curve

Dimension Technology's professional optical, mechanical and electrical computing integration capabilities provide reliable guarantee for the mode control of tunable laser sources. Through precise control and algorithms, TopLight can ensureUnder the premise of ultra-high scanning speed and wavelength accuracy, it is confirmed that the main mode wavelength of the laser output is always dominant, and the test can be completed without a wavelength calibration piece during scanning.

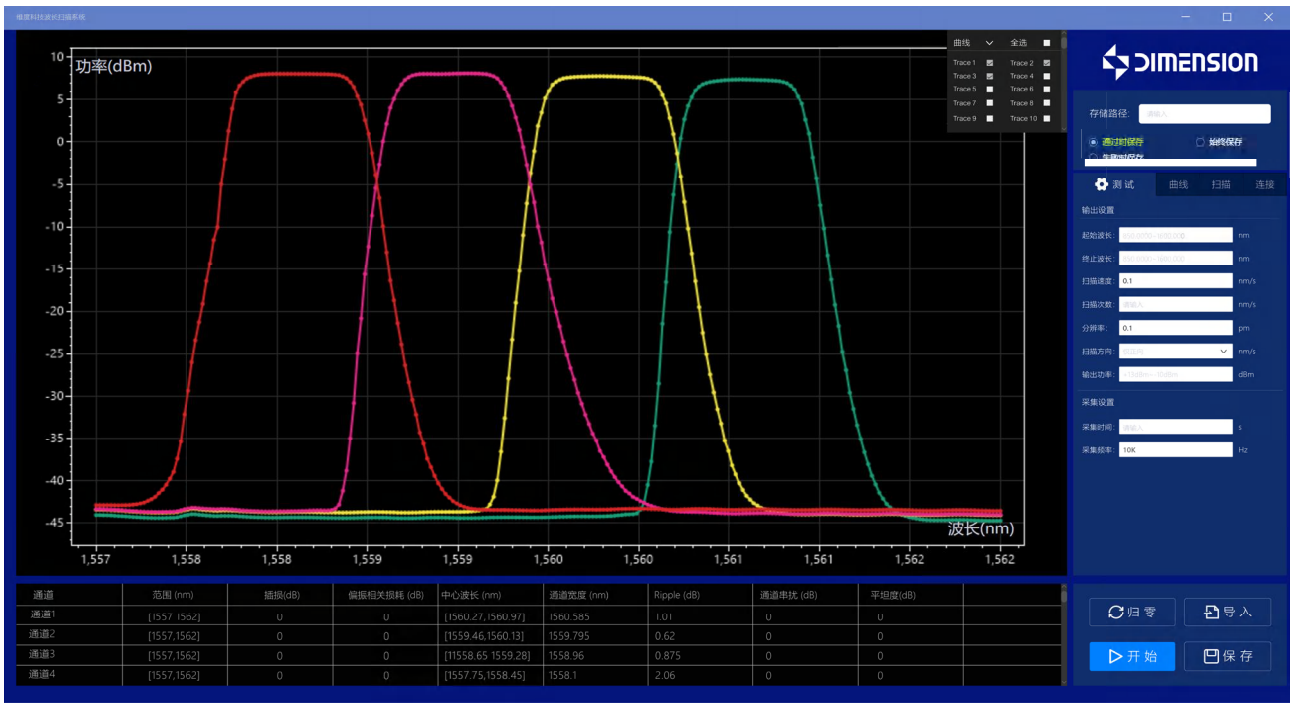




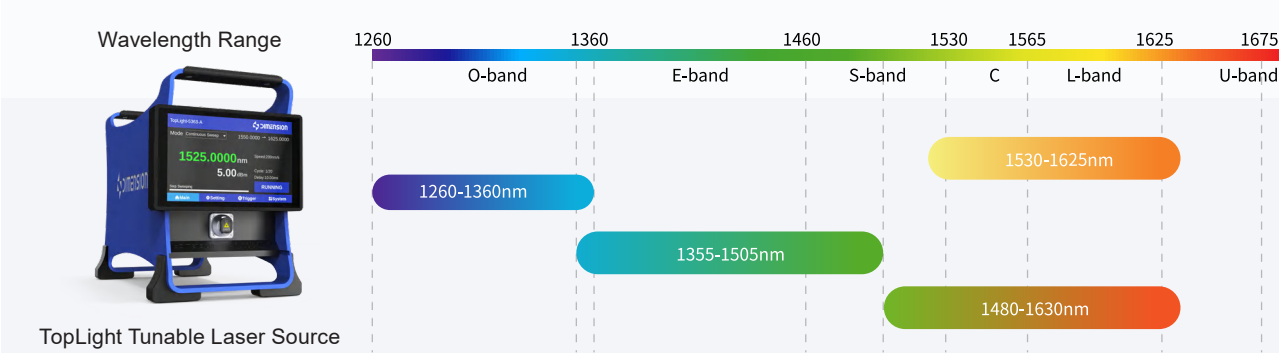
Used with wavelength scanning system to realize optical device scanning test



The wavelength scanning system independently developed by Dimension Technology is equipped with a TopLight tunable laser source and a high-speed power meter. The wavelength accuracy can reach ±5pm and achieves a fast scan of 100nm/s.Scanning provides efficient and accurate testing solutions for wavelength-dependent devices. Based on years of design experience, Dimension Technology provides system software with good human-computer interaction, allowing Users can complete the wavelength scan test clearly and simply. Users only need to tap the test button to obtain a detailed test report. Moreover, due to the platform + modular design frame Dimension Technology's equipment is extremely flexible when needs change. It can be upgraded to a new test environment by simply adding, subtracting or replacing modules, saving users a lot of time and economic costs.



Multiple wavelength ranges are available,covers multiple device application scenarios



Parameter performance

Category	Parameter			TLS tunable laser source
Wavelength characteristics	Wavelength tunable range			1260nm~1360nm/1480nm-1630nm
	Wavelength resolution			0.1pm
	Wavelength stability			±5pm
	Wavelength accuracy	Absolute accuracy[1]		±20pm
		Absolute accuracy	Step scanning	±10pm
		Repeatability		±5pm
		Absolute accuracy	Continuous scanning @100nm/s	±20pm
		Repeatability		±10pm
	Maximum scanning speed			200nm/s
Output power characteristics	Output Power	Peak		+13dBm
		>10dBm range		1260nm-1360nm/1480nm-1630nm
		Full wavelength tuning range		-15~+13dBm
	Stability			±0.01dB
	Repeatability	Step scanning		±0.01dB
	Flatness			±0.2dB
	Repeatability	Continuous scanning @100nm/s		±0.01dB
	Flatness			±0.2dB
	Relative Intensity Noise (RIN) (Typical)			145dB/Hz (1 MHz to 3 GHz)
Spectral characteristics	Line width			200KHz
	SMSR			60dB
	SINR			70dB

Tunable laser source selection

TL—[ ]

Wavelength range	
2636	1260nm~1360nm
3550	1355nm~1505nm
4863	1480nm~1630nm

[ ]—[ ]—[ ]

Accuracy	
A	High performance

Light source connector type	
FA	FC/APC
FP	FC/PC

Fiber type	
P	PMF single mode polarization maintaining fiber

Example: TL-4863-FA-P, TopLight tunable laser source, wavelength range 1480nm~1630nm, high-performance version, FC/APC, PMF single mode polarization maintaining fiber output.

All specifications require more than 1 hour of equipment warm-up before measurement.

1. The test conditions for all parameter indicators are that the temperature changes within 25±5°C.
2. The test conditions are wavelength resolution 5pm, wavelength range 100nm, single channel and single scan.
3. All losses do not include the impact of connectors.

High-speed Optical Power Meter

AlphaController 100G 400G

When the optical power changes at a high speed, it is a great challenge for the power meter to accurately and quickly capture the power value. The traditional optical power meter cannot meet the demand for high-speed and accurate measurement. Therefore, the high-speed optical power meter came into being. Traditional optical power meters take a lot of time in power value integration and gain shift switching in order to measure the accuracy of numerical values and the requirements of large dynamic range, so they cannot output effective optical power values quickly and accurately. Therefore, it cannot meet the application requirements of high-speed automated test systems and high-speed monitoring systems.

Dimension Technology's high-speed optical power meter ensure high-speed power output and meet the needs of large dynamic range at high speed in principle design and component selection. It has batch acquisition working mode and trigger acquisition mode, and can provide high-speed continuous acquisition of up to 10KHz, large dynamic range (+10dBm~-70dBm), and a storage depth of 10 million measurement data (Each channel). Cooperating with tunable light source products, it provides a high-efficiency and high-performance test solution for the rapid scanning of optical passive devices (DWDM, AWG, WSS and so on).

Main Features

- Continuous acquisition frequency up to 10KHz (full power range)
- Support automatic gain shift acquisition measurement in high-speed mode
- Each channel has a storage depth of up to 10 million
- Support continuous trigger acquisition mode
- Support single trigger batch acquisition mode
- Support fixed gain compensation setting
- User-configurable analog output port
- Support optical power detection range in high-speed mode: +10dBm~-70dBm
- Support any wavelength setting within the wavelength range of 850nm~1650nm
- Single module can provide 1, 2 or 4 channel optical power detection

Applications

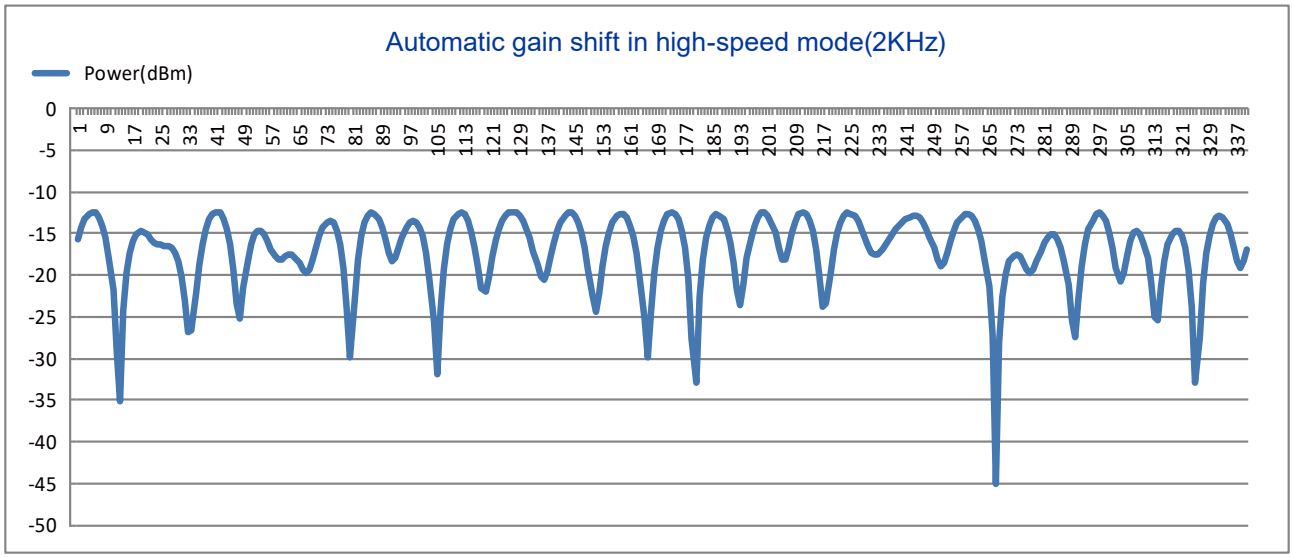
- Optical passive devices (DWDM, AWG, WSS …) wavelength rapid scanning test
- Optical active device/passive device PDL high-speed scanning test
- Fast capture of optical signals in the field of optical fiber sensing
- Fast optical coupling automated test system
- Optical chip rapid test system
- Automated high-speed test system
- Optical network optical signal monitoring system
- Research laboratory

Continuous acquisition frequency up to 200KHz (full power range)

The high-speed optical power meter can quickly acquisition and measure the transient fluctuation and noise of the optical signal, restore the fluctuation details of the signal, and characterize the continuous change of the optical signal.

Support automatic gain shift acquisition measurement in high-speed mode

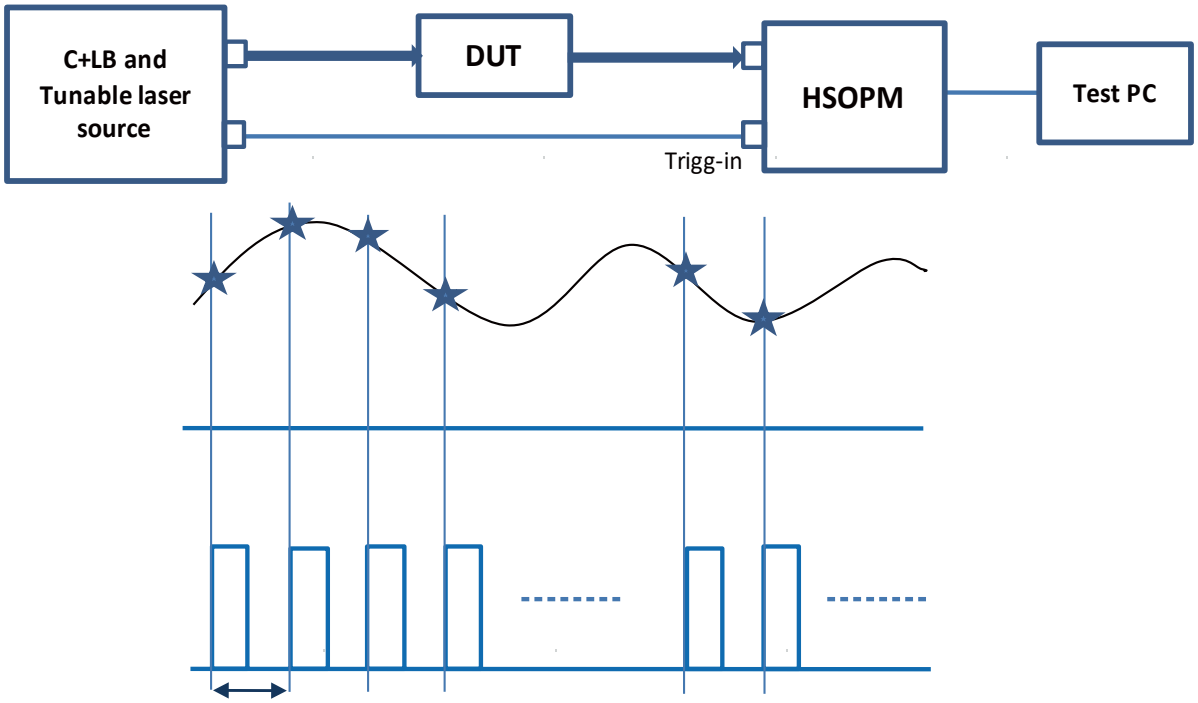
Provides fast automatic gain shift acquisition in high-speed mode, which is very important for accurate acquisition and measurement of power changes in large dynamic range scenarios.



Each channel has a storage depth of up to 10 million

Support Continuous Trigger Acquisition Mode

User configurable trigger input port (trigg-in), users can connect an external trigger signal (eg.tunable light source) to the power meter trigger-in port according to their own test requirements to achieve continuous trigger acquisition, synchronous trigger, acquisition data.

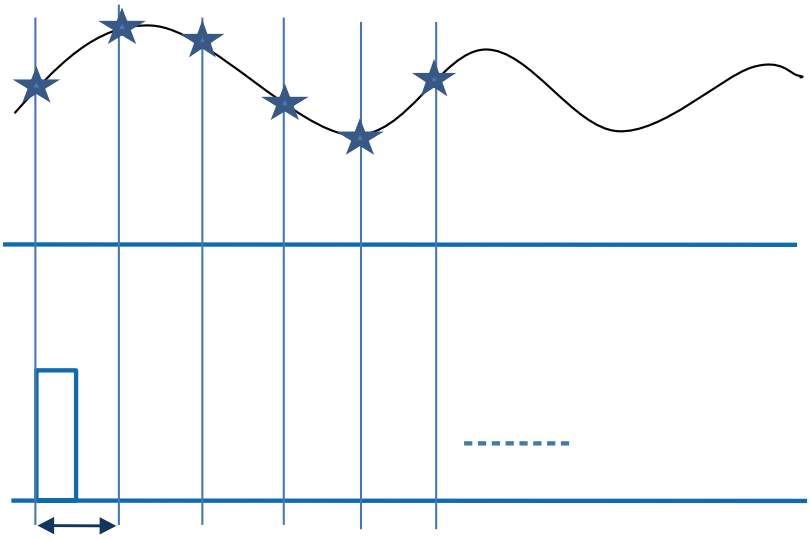


500us

Continuous trigger acquisition-Rising edge trigger 2KHz

Support Single Trigger Batch Acquisition Mode

Users can connect the external trigger signal to the trigger-in port of the power meter according to their own test requirements to achieve single trigger batch acquisition function.



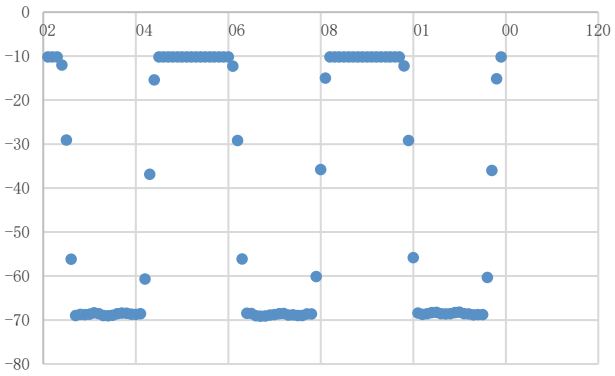
100us

Single trigger batch acquisition — Rising edge trigger 2KHz

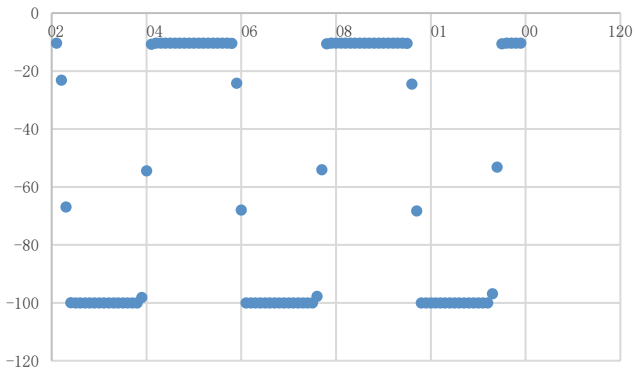
Support Fixed Gain Compensation Setting

The fixed gain compensation setting can achieve high-speed acquisition faster, and the response time for large dynamic range data acquisition is shorter. It is easier to capture the transient changes of the signal.

Automatic gain shift acquisition(2KHz)F



ixed gain compensationshift acquisition(2KHz)

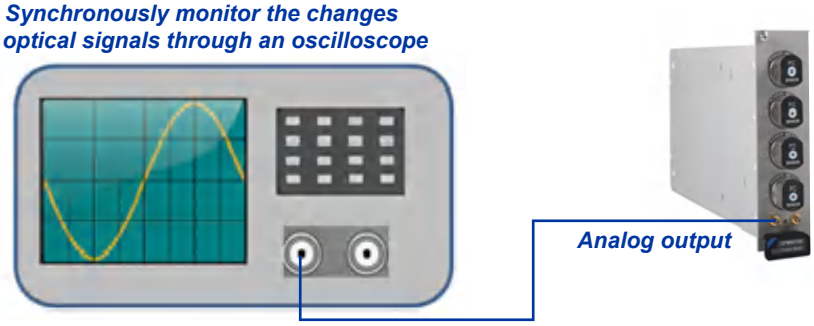


The fixed gain compensation setting has a shorter response time for large dynamic range data acquisitio

User-configurable analog output port

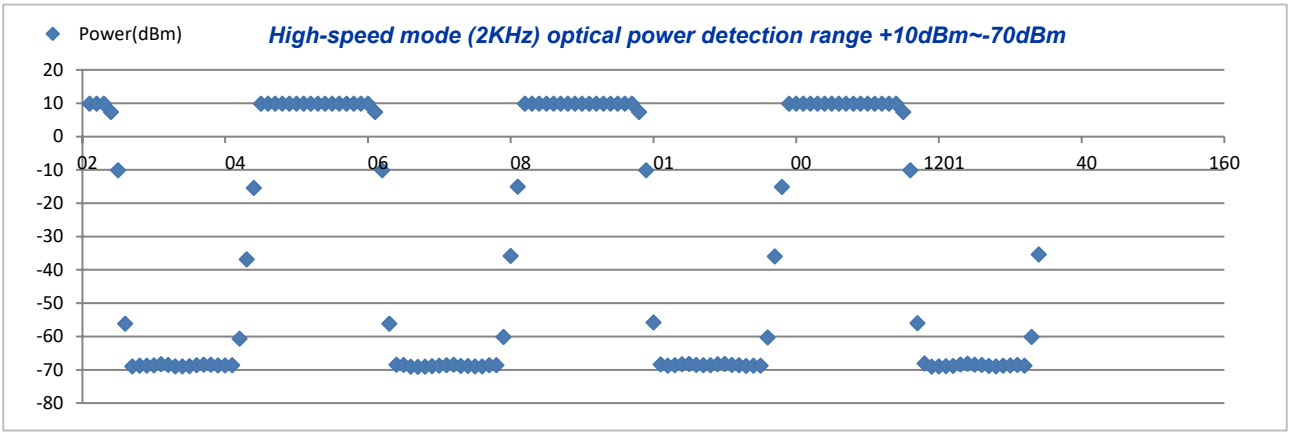
Users can use the analog output port to connect with an oscilloscope to realize synchronous observation of the acquisition signal.

Synchronously monitor the changes of optical signals through an oscilloscope



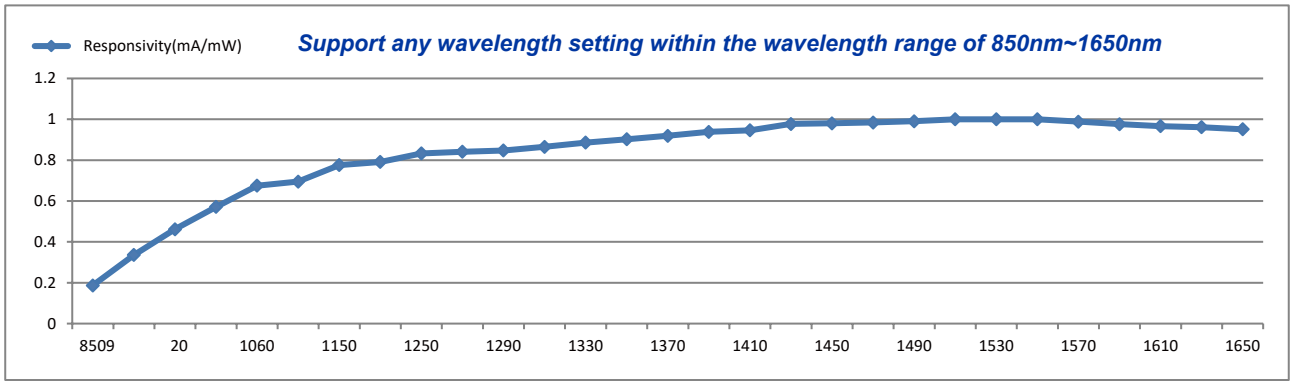
Support optical power detection range in high-speed mode: +10dBm~-70dBm

Users can use the analog output port to connect with an oscilloscope to realize synchronous observation of the acquisition signal.



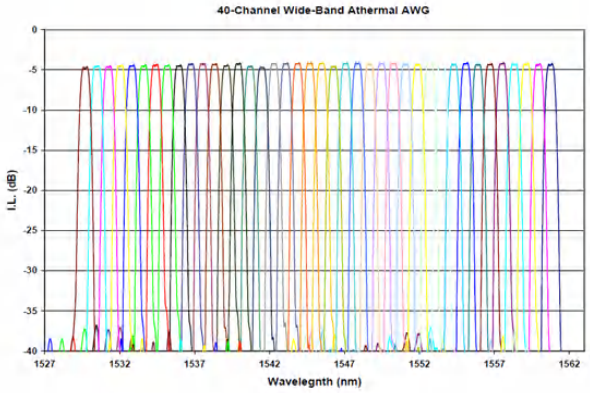
Support any wavelength setting within the wavelength range of 850nm~1650nm

In order to ensure the accuracy of power measurement at any wavelength in the range of 850nm to 1650nm, Dimension Technology has accurately calibrated light sources of different wavelengths. Therefore, our power meter supports users to set any wavelength and ensures the accuracy of power.



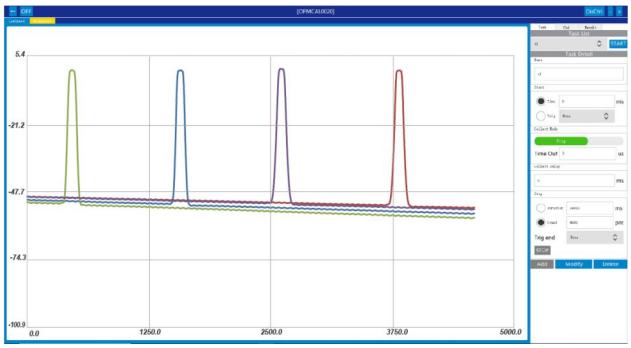
Typical Application

Combined with a tunable light source, the main application of high-speed optical power meters in the wavelength scanning test of optical passive devices.
In the fast scanning test of passive components (DWDM, AWG, WSS, etc.), spectral isolation is a key feature for testing multiple wavelength multiplexing devices. It will determine the crosstalk of signals at different wavelengths, evaluate and measure the insertion loss and the inhibition of other wavelengths is an important indicator of isolation or routing wavelengths to other port.



Easy to integrate automatic control instructions + exclusive DEMO software(GUI)

The universal optical test platform OMEGA is equipped with Ethernet interface, RS232 interface and USB communication interface. Users can easily realize secondary software development through the universal communication protocol instruction set. At the same time, we also provide exclusive DEMO software to facilitate customer evaluation and showing.



For user convenience and maximum flexibility, Dimension provides a wealth of interchangeable detector adapters (Applicable to various fiber connector types), as well as an fiber clamps that allow the bare fiber power measurement. The product comes with FC adapters in the form of a standard accessory, and also provides an external detector extension cable for remote head user selection.

Specifications [4]

Model	OPM6XXXA
Number of Channels	1/2/4
Detector type	InGaAs
Detector size	2mm
Wavelength Range	850nm~1650nm
Power Detection Range	+10dBm~-70dBm (Typ.)
Maximum Safe Power	+13dBm
Linearity [1]	±0.05dB (+5dBm~-50dBm)
Polarization-dependent responsivity [2]	±0.01dB (0dBm~-50dBm) (Typ.)
Uncertainty [3]	± (5%+100pW)
Power Resolution	0.001dB
Wavelength Resolution	1nm
Sampling Rate	200Khz (MAX)
Storage Depth	10 million per channel
Storage Support	Yes
Analog Output	Yes
Fiber Type	SM/MM

General Specifications

Control interface	Network,USB,Touch screen and Button
Result output	mW/dB/dBm options
Recalibration period	two years
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)
Working temperature	10°C~40°C
Storage temperature	-40°C~70°C
Input power	90~260V AC
Size	Module: 285mmX133mmX35mm

Remark

【1】Not contain noise and drift, CW model, 1000 to 1600 nm.

【2】The temperature is 23°C ± 1°C, using a non-angle FC connector, 1550nm wavelength, the power is constant.

【3】The temperature is 23°C ± 1°C, using a non-angle FC connector, 1000 to 1640 nm wavelength, When the wavelength is less than 1000 nm, the uncertainty of 1% is increased, and when the wavelength exceeds 1640 nm, the uncertainty is increased by 6%.

【4】The test fiber type was standard SM 9/125 fiber and MM 62.5/125 fiber.

Ordering Information

OPM □

OPM Mode	
2	High-speed series

Channel Quantity	
1	1CH
2	2CH
4	4CH

Detector type	
1	InGaAs detector

Detector size	
2	2mm

Expanded option	
A	MAX power (+10dBm)
X	Specified by Customer

Eg. OPM2212A High speed OPM, 2CH, 2mm InGaAs detector, MAX power+10dBm.

Optical Power Meter

Dimension OPM series modules include High-Performance series, high-speed series, high-power series, high-sensitivity series and Cost-effective series. All modules are compatible with Dimension ALPHA and OMEGA universal optical test platforms.Through the platform based test solution we can provide faster, more accurate and more flexible power measurement solutions, including the measurement of weak signal and the detection of tiny signal jump, as well as the accurate measurement of ultra-high light power.

For user convenience and maximum flexibility, Dimension provides a wealth of interchangeable detector adapters (Applicable to various fiber connector types, as detailed in the attached table below), as well as an fiber clamps that allow the bare fiber power measurement. The product comes with FC adapters in the form of a standard accessory, and also provides an external detector extension cable for remote head user selection.

Platform + Modular design

All OPM modules are compatible with ALPHA and OMEGA universal optical test platforms. Through software programming control, it can work with other Dimension functional test modules and realize one-stop automatic test solutions.

Regular General Series

Main Features

- One, two or four detectors on a single module
- Wavelength range: 850nm~1650nm
- User-configurable trigger input and analog output
- Compatible with single-mode and multimode fiber

Applications

- Optical devices power measurement
- Manufacture automated optical power measurement

Specifications [4]

Model	OPM1XXXA
Number of detectors	1/2/4
Detector type	InGaAs
Detector size	2mm
Wavelength range	850nm~1650nm
Power range	+10dBm~-75dBm (Typ.)
Maximum safe power	+13dBm
Linearity [1]	±0.05dB (+5dBm~-50dBm)
Polarization-dependent responsivity [2]	±0.01dB (0dBm~-50dBm) (Typ.)
Uncertainty [3]	± (5%+300pW)
Display accuracy	0.001dB
Wavelength resolution	1nm
Averaging time	10us~1s
Return loss	>55dB
Buffer size	NA
Trigger input	Support
Analog output	Support
Fiber type	SM/MM

High-speed series

The high-speed OPM module designs and adopts the high-speed sampling circuit, in high speed mode, can provide 10 KHZ(MAX) power data acquisition speed, and 10 million measured data buffer size (per channel). Cooperate with the Dimension SLS light source, It provides an efficient and low-cost test solution for the fast scan test of passive devices.

Main Features

- One, two or four detectors on a single module
- Wavelength range: 850nm~1650nm
- Up to 10 million measured data buffer size (per channel)
- Provide 10 KHZ(MAX) power data acquisition speed
- User-configurable trigger input and analog output
- Compatible with singlemode and multimode fiber

Applications

- Optical devices power high-speed measurement
- Manufacture automated power high-speed measurement
- Laboratory application

Specifications [4]

Model	OPM6XXXA
Number of Channels	1/2/4
Detector type	InGaAs
Detector size	2mm
Wavelength Range	850nm~1650nm
Power Detection Range	+10dBm~-70dBm (Typ.)
Maximum Safe Power	+13dBm
Linearity [1]	±0.05dB (+5dBm~-50dBm)
Polarization-dependent responsivity [2]	±0.01dB (0dBm~-50dBm) (Typ.)
Uncertainty [3]	± (5%+100pW)
Power Resolution	0.001dB
Wavelength Resolution	1nm
Sampling Rate	200Khz (MAX)
Storage Depth	10 million per channel
Storage Support	Yes
Analog Output	Yes
Fiber Type	SM/MM

Cost-elective series

Main Features

- Wavelength range: 850nm-1650nm
- Customized wavelength settings, wavelength revolution: 0.1nm
- lower cost, but high quality
- Compatibility SM/MM fibers

Applications

- large amount of deployment for industrials
- Reliability test in laboratory
- Constant monitoring of optical power

Specifications [4]

Product Number	OPM5XXXX
Channels	1/2/4
Detector Type	InGaAs
Detector Size	1mm
Wavelength Range	850nm~1650nm
Detect Range	+6dBm~-75dBm(Tpy.)
Maximum Power	+13dBm
Linearity	0dBm~-50dBm: ±0.15dB -50dBm~-65dBm: ±0.25dB
Power Resolution	0.001dB
Wavelength Resolution	0.1nm
Testing Period	10us~1s
Return Loss	>55 dB
Buffer Size	NA
Fiber Type	SM/MM

General Specifications

Control interface	Network,USB,Touch screen and Button
Result output	mW/dB/dBm options
Recalibration period	two years
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)
Working temperature	10°C~40°C
Storage temperature	-40°C~70°C
Input power	90~260V AC
Size	Machine: 359mmX274mmX115mm; Module: 285mmX133mmX35mm
Weight	~ 4.05kg (ALPHA platform +2CH OPM module)

Remark

【1】ot contain noise and drift, CW model, 1000 to 1600 nm.

【2】The temperature is 23 °C ± 1 °C, using a non-angle FC connector, 1550nm wavelength, the power is constant.

【3】The temperature is 23 °C ± 1 °C, using a non-angle FC connector, 1000 to 1640 nm wavelength, When the wavelength is less than 1000 nm, the uncertainty of 1% is increased, and when the wavelength exceeds 1640 nm,the uncertainty is increased by 6%.

【4】The test fiber type was standard SM 9/125 fiber and MM 62.5/125 fiber.

【5】The measurement wavelength of linearity index is 1550 nm.

Detector Adaptors Selection Guide

Number	PN	Name	Description	Image
1	204810002	***OPM FC adapter***	***Detection interface, suitable for FC connector***	
2	204810003	***OPM SC adapter***	***Detection interface, suitable for SC connector***	
3	204810004	***OPM LC adapter***	***Detection interface, suitable for LC connector***	
4	204810007	***OPM 2.5 ferrule adapter***	***Detection interface, suitable for FC/SC/ST ... connector and 2.5mm ferrule***	
5	204810006	***OPM 1.25 ferrule adapter***	***Detection interface, suitable for LC/duplex LC /SN ... connector and 1.25mm ferrule***	
6	204810014	***OPM Integrating Sphere***	***Provide wide numerical aperture, can be used with MPO/ duplex LC adapters***	
7	204810015	***OPM MPO adapter***	***Detection interface, suitable for MPO12/MPO16 connector***	
8	204810016	***OPM duplex LC adapte r***	***Detection interface, suitable for LC/duplex LC connector***	
9	204810017	***OPM Bare- fiber adaptor***	***Detection interface, suitable for bare-fiber power test application***	

Ordering Information

OPM ☐ ☐ ☐ ☐ ☐

OPM Mode	
1	Standard series
5	High-Cost-Effectiveness series
6	High-speed 200kHz series

Channel Quantity	
1	1CH
2	2CH
4	4CH

Detector type	
1	InGaAs detector

Detector size	
1	300μm
2	2mm

Expanded option	
A	MAX power(+10dBm)
D	MAX power(+6dBm)
E	MAX power(+12dBm)
X	Specified by Customer

Eg. OPM2212A High speed OPM, 2CH, 2mm InGaAs detector, MAX power +10dBm

Stable Light Source

Stable light source plays an irreplaceable role in all optical testing and researching area. In order to satisfy different application scenario needs, Dimension developed 4 kinds of stable light sources: DFB laser source, FP laser source, SLED broadband light source, and ultra-narrow linewidth laser source.

- 1CH, 2CH, or 4CH output available, each channel could be independently controlled. Wavelength and power can be customized.
- Support USB / Ethernet / button controlling.
- Modular design, high precision, high reliability interface with patent. Flexible disassembled SC/FC connector, convenient for post-maintenance.

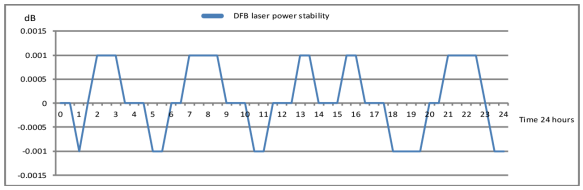
Dfb Laser Source

Main Features

- Provided a wide spectral range,the speactral width can reach up to 110nm in -3 dBm spectral power.
- High spectral power density, up to -10dBm
- Spectral ripple can be as low as ±0.1dB
- Outstanding stability

Applications

- CWDM channel testing
- Optical network monitoring
- IL/RL testing
- Optical passive device, active device testing
- Instrument performance testing



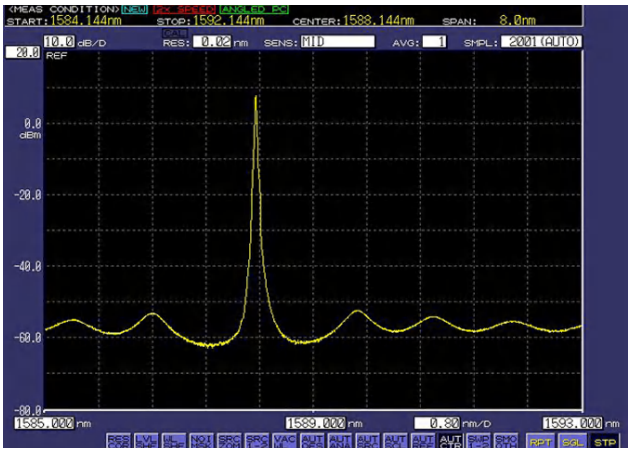


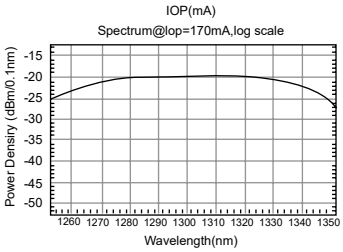
Chart1-1 Parameters of DFB Stable Laser Source [1] [2] [3] [4]

Model	DFB Stable Laser Source	
Channel	1,2,4CH available	
Fiber Type	SM 9/125;Panda PMF	
Wavelength	1270、1290、1310、1330、1350、1370、1390、1410、1430、1450、1470、1490、1510、1530、1550、1570、1590、1625、1650, etc.	
Wavelength accuracy	±5nm	
Connector	high precision, high reliability interface, SC/FC flexible switching	
Power stability	Type A	Type C
Power stability 15mins	850~1270nm: ±0.05; 1270~1650nm: ±0.005	850~1270nm: ±0.1; 1270~1650nm: ±0.05
Power stability 24H	850~1270nm: ±0.2; 1270~1650nm: ±0.02	850~1270nm: ±0.4; 1270~1650nm: ±0.2
Output power	1mW、10mW、20mW, etc.	
SMSR	>40dB	
Polarization extinction ratio (PER)	>17dB	
Modulation	internal modulation HZ(270、1K、2K)	
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)	
Recalibration period	2years	
Working temperature	10°C~40°C	
Storage temperature	-40°C~70°C	
Size	Machine: 359mm*274mm*115mm; Module: 285mm*133mm*36mm	

SLED Broadband Light Source

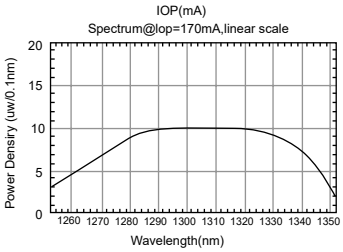
Main Features

- Wide spectral range (3dB spectral width 90nm) [5]
- High output power (10mW) [5]
- Excellent power stability



Applications

- Coarse wavelength division multiplexing (CWDM) network testing
- Passive optical network (PON) component manufacturing and testing
- Fiber sensing and spectrum analysis.



Application examples:

Chart1-2 Parameters of SLED Broadband Light Source [1] [2] [3] [4]

Model	SLED Broadband Light Source
Center wavelength	750、840、880、1020、1050、1280、1310、1410、1490、1550、1610、1640
-3dB spectrum width (Typ.) [5]	40-90nm
Output power (Typ.) [5]	5-10mW
Power stability [5]	±0.05dB/8H (Typical)
Working Mode	CW
Fiber Type	SM 9/125
Connector	high precision, high reliability interface, SC/FC flexible switching
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)
Recalibration period	2years
Working temperature	10°C~40°C
Storage temperature	-40°C~70°C
Size	Machine: 359mm*274mm*115mm; Module: 285mm*133mm*36mm
Input power	AC 90~260V 50Hz
Spectral power density	≥-20dBm

FP Laser Source

Main Features

- Output power higher than 5 mW
- Support internal modulation

Applications

- Fiber product testing and verification
- Optical component manufacturing and testing

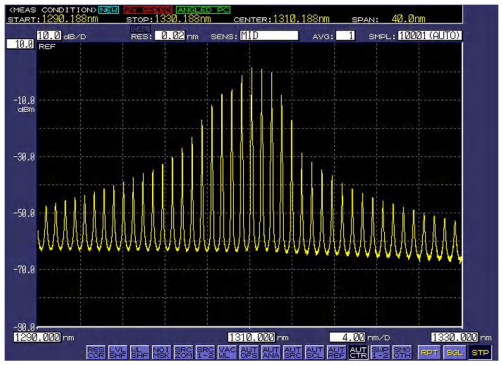


Chart1-3 Parameters of FP Laser Source [1] [2] [3] [4]

Model	FP Laser Source	
Channel	1,2,4CH available	
Fiber Type	9/125; 50/125; 62.5/125 available	
Wavelength (TEC)	850、980、1060、1310、1550	
Wavelength	850、1310、1550	
Wavelength accuracy	±20nm	
Connector	high precision, high reliability interface, SC/FC flexible switching	
Power stability	Type A	Type C
Power stability 15mins	850~1270nm: ±0.05; 1270~1650nm: ±0.005	850~1270nm: ±0.1; 1270~1650nm: ±0.05
Power stability 24H	850~1270nm: ±0.2; 1270~1650nm: ±0.02	850~1270nm: ±0.4; 1270~1650nm: ±0.2
Output power	>5mW	
Modulation	internal modulation HZ(270、1K、2K)	
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)	
Recalibration period	2years	
Working temperature	10°C~40°C	
Storage temperature	-40°C~70°C	
Size	Machine: 359mmX274mmX115mm; Module: 285mmX133mmX36mm	
Input power	AC 90~260V 50Hz	

Ultra-narrow Linewidth Laser Source

Main Features

- Ultra-narrow spectral linewidth
- High output power
- High reliability and stability

Applications

- Fiber bragg grating sensing
- Coherent fiber communication
- Nonlinear research
- Leak detection and monitoring

Ordering Information

SLS □ □ □ □ □ — □ # □

Fiber Type	
1	SM 9/125um
5	MM 50/125um
6	MM 62.5/125um
8	SM 9/125um PM

Laser Source Type	
1	FP(Type A)
2	DFB(Type A)
3	SLED broadband light source
4	Ultra-narrow linewidth laser source
5	FP(Type C)
6	DFB(Type C)
9	***Customized***

Output Power	
1	1mW
2	5mW
3	10mW
4	20mW
9	Customized

Laser Number	
1	1PCS
2	2PCS
4	4PCS

Output CH Number	
1	1CH
2	2CH
4	4CH

Connector Type	
FA	FC/APC
FP	FC/PC
X	Customized

Wavelength list [6]
For detailed wavelength information, please see the parameters of each Laser Source

Eg: SLS12344-FA#1310/1490/1550/1625

SM 9/125, Stable laser source DFB,10mW, 4 Laser source 4 CH output, FC/APC, wavelength 1310/1490/1550/1625nm

Remark

【1】Above specifications are under temperature 23 °C ± 1 °C.

【2】Center wavelength is the default value displayed on screen.

【3】Ambient temperature change is less than ±1°C.

【4】20 minutes for preheating if stored at the same temperature before.

【5】Measured wavelength is 1310/1550nm, and the spectral width and output power of SLED light source are related to the central wavelength.

【6】The list of wavelengths can be customized, and the number of output channels should correspond to the number of wavelengths in principle. Take 4-CHs output as an example. If you need 4-CHs 1310, the list of wavelengths is 1310*4. If need 2-CHs 1310, 2-CHs 1550 then the list of wavelengths is 1310*2/1550*2; If need four different wavelengths, such as 1270/1290/1310/1330, the list of wavelengths will be written as 1270/1290/1310/1330, corresponding to 1/2/3/4 channels in turn.

【7】The Type C light source supports only 1 and 5mW.

【8】The 3dB bandwidth of the SLED light source varies slightly with power, ranging from 50 to 90nm.

OSW Optical Switch

To meet diverse requirements in optical communication networks, Dimension Optical Switches come in two configurations: OMEGA Series Modular and XHASIS Series Rack-Mount. The feature is high repeatability, low insertion loss, high density, cost-effectiveness and easy deployment. In addition, with customizable designs, these switches can be flexibly adapted to fiber and optical component testing systems, as well as large-scale optical network routing and automated operation scenarios.

Main Adavantages

- High repeatability, service life over 10 million times.
- Low insertion loss, low polarization-dependent loss, and good channel consistency.
- Short switching time, less than 30ms.
- Matrix optical switch, free reconfiguration.
- Programmable, supports multiple control modes including time, button and program.
- The OMEGA Series Modular can integrate multiple functional modules into one, which can quickly realize one-stop testing of optical devices and other products.
- XHASIS Series Rack-Mount optical switches have high density, small size, easy deployment and low cost.

Main Application

- Optical loop protection and switching
- Fiber optical network remote monitoring
- Optical device testing and research
- Automated testing

Main Categories

OMEGA series modular

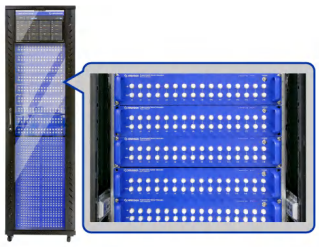
- 1 x N optical switch module
- 2 x N optical switch module
- Matrix optical switch module

XHASIS Series Rack-Mount

- High Channel Matrix Optical Switch
- High-density rack-mount optical switch

OMEGA Series Modular vs XHASIS Series Rack-Mount

Each channel the insertion loss is less than 1.0 dB, the polarization dependent loss is less than 0.05dB. 【2】

Feature	OMEGA Series Modular	XHASIS Series Rack-Mount
Appearance		
Structural design	Platform + Module	Rack-Mount, compact structure, small size, powerful functions.
Scalability	The platform is compatible with a variety of functional test modules including optical switches, and supports adding or reducing modules on demand to meet the needs of diverse scenarios.	Suitable for rapid deployment of large-scale integrated test stations.
Customization	Any channel can be customized according to customer needs.	Any channel can be customized according to customer needs to meet complex networking requirements in scenarios such as 4G fronthaul and data center inter connection.
Maintenance efficiency	Modular structure and hot-swappable function enable fast replacement of faulty modules, avoiding machine downtime and significantly shortening system maintenance time.	Each rack-mounted optical switch is independently maintained
Cost Efficiency	The modular solution only requires replacing modules instead of the platform	The modular solution only requires replacing modules instead of the platform

High repeatability

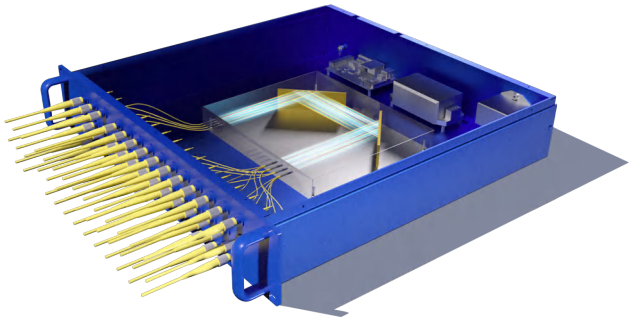
- **High switching times:** The switching times of OSW optical switches can reach 10 million times, and MEMS optical switches can reach 1 billion times.
- **High repeatability:** The repeatability of insertion loss after 100 random switching is less than 0.02dB, providing users with a highly reliable optical path.

Low insertion loss, low polarization dependence, good channel consistency, short switching time

- **Low insertion loss:** The insertion loss of each channel of OSW is less than 1.0dB.
- **Low polarization dependence:** polarization dependence loss is less than 0.05dB.
- **Short switching time:** switching time is less than 30ms.

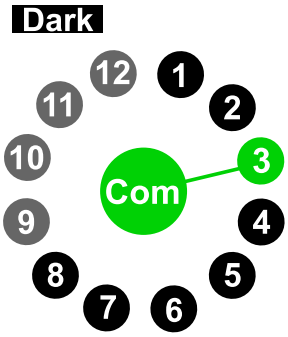
Matrix optical switch, which can realize M x N optical path routing

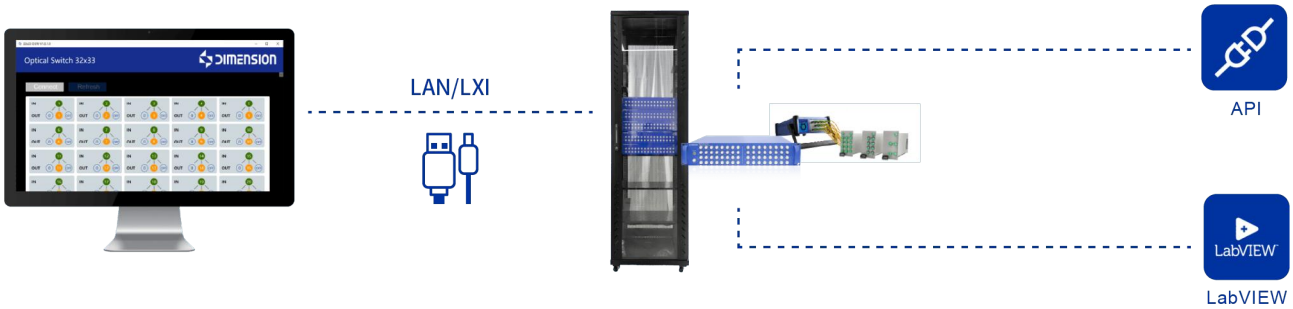
- Matrix optical switches have high density and can realize M x N optical path routing.
- MEMS optical switches are based on micro electromechanical system technology. Its core principle is to realize dynamic switching of optical paths through precise control of micron-level movable micro-mirror arrays, which can realize arbitrary switching from M to N channels.



Programmable, supports multiple control methods

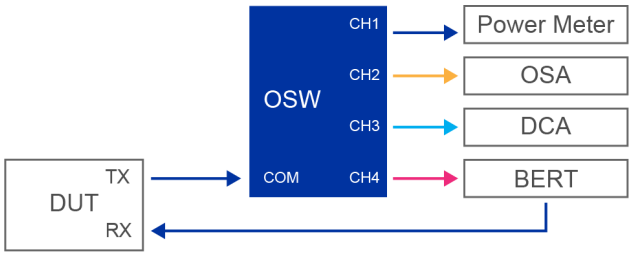
- **Multiple communication methods:** OMEGA v1.0 and XHASIS Rack-Mount optical switches provide TCP/IP or USB connection methods. OMEGA v2.0 has been further optimized to support LXI communication.
- **Visual testing:** Equipped with visualization software to facilitate users to use and build a testing platform.
- **Automated testing:** The optical switch can be triggered by external TRIG signals, waiting for the set time, or by touch screens, physical buttons, etc. It provides API interfaces and encapsulates control instructions of LabVIEW statements, etc., to help users quickly embed the test system.



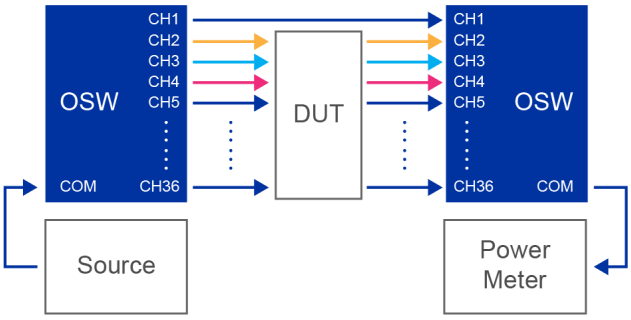


Main Application Scenarios

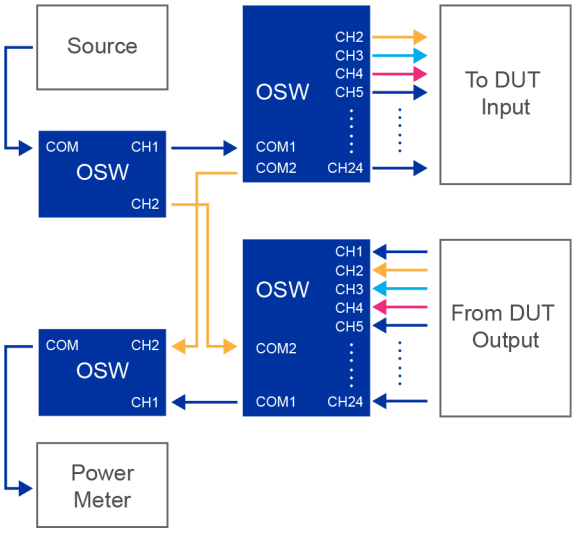
- Optical switches enable selection of different test instruments, thus eliminating deviations caused by poor connection repeatability.



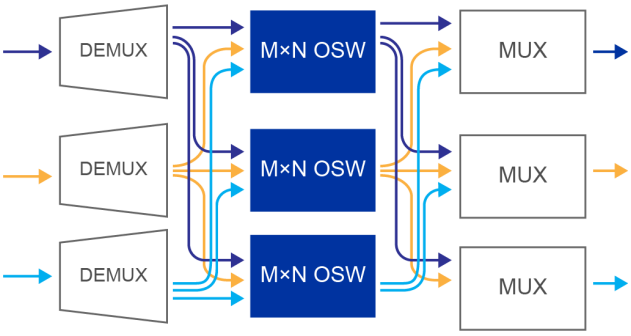
- Through the combination of optical switches, automatic testing of multi-channel products can be achieved.



- Through the combination of multi-level optical switch matrix, bidirectional automatic testing of multi-channel products can be realized.



- Through the combination of M x N optical switches, MUX and DEMUX of data transmission are realized.



Specifications

Parameter	Mechanical Optical Switch	MEMS Optical Switch
Wavelength	1260nm~1650nm	1250nm~1670nm
Test wavelength	1310nm/1550nm	
Insertion Loss	Max: 1.2dB	Max: 1.3dB
Return Loss	> 55dB(SM/APC); >35dB(MM/PC)	> 50dB(SM/APC); >30dB(MM/PC)
Channel crosstalk	SM>70dB, MM>55dB	SM>50dB, MM>30dB
Repeatability	<±0.02dB	<±0.02dB
Switching times	$\geq 10^7$	$\geq 10^7$
Switching time	10ms*(n-m)+5ms; from port m to n, n>m; 10ms*(n-m)+30ms; from port n to m, n>m	min 5ms max 10ms
Power Supply	AC 90~260V/50Hz	
Operation temperature	10°C~40°C	
Storage temperature	-40°C~70°C	
Size [3]	OMEGA Series Modular: Chassis: 359mm×274mm×115mm Single slot module: 285mmX133mmX35mm Dual slot module: 285mmX133mmX71mm; XHASIS Series Rack-Mount: 2U or 3U	

Remark

【1】The switching life of mechanical optical switches is greater than 10 times, and the switching life of MEMS is greater than 10 times.

【2】The insertion loss introduced by the connector is not included. The insertion loss is related to the number of optical switch ports. The test sample for the indicators shown in the above table is a 1*16 channel optical switch.

【3】OMEGA Series Modular are available in single slot, double slot and multi-slot types according to the number of optical switch ports. The width of the multi-slot module is the sum of the width of the single slot. XHASIS Series Rack-Mount optical switches are available in 2U, 3U and other sizes depending on the number of optical switch ports.

【4】Repeatability test conditions are 23°C ± 3°C, MEMS optical switch is tested 100 times, using FC/APC connector.

Ordering Information

• OMEGA Series Modular

OSW — □ □□ □□ □ — □□

Fiber Type	
1	SM 9/125
5	MM 50/125

Number of Input	
01	1CH
02	2CH
04	4CH
.....	.....
32	32CH

Number of Output	
01	1CH
02	2CH
04	4CH
.....	.....
99	Customized

Mechanism	
A	Mechanical
B	MEMS

Connector Type	
FA	FC/APC
FP	FC/PC
SA	SC/APC
SP	SC/PC
LA	LC/APC
LP	LC/PC
X	Customized

Example:

Model: OSW-10432B-FA MEMS 4X32 Single Mode FC/APC Connector Optical Switch

• XHASIS Series Rack-Mount

OSW — X — □ — □□ □□ — □□ □□ — □ — □□ □□

Fiber Type	
1	SM 9/125
5	MM 50/125

Number of Input	
01	1CH
02	2CH
04	4CH
.....	.....
32	32CH

Number of Output	
01	1CH
02	2CH
04	4CH
.....	.....
99	Customized

Mechanism	
A	Mechanical
B	MEMS

Connector Type	
FA	FC/APC
FP	FC/PC
SA	SC/APC
SP	SC/PC
LA	LC/APC
LP	LC/PC
X	Customized

Example:

Model: OSW-X-10204B-FA MEMS 2X4 Single Mode FC/APC Connector Optical Switch

POA Programmable Optical Attenuator

The new generation of multi-mode programmable optical attenuatorintegrates years of technological iterations and innovations, and comprehensively upgrades the product. Attenuation accuracy, speed, range and other indicators have been comprehensively upgraded.The new attenuator has a built-in power meter for closed-loop monitoring of output power and supports multiple operating modes, perfectly adapting to the application scenario of testing the sensitivity of 800G/1.6T optical modules.

Main Advantages

- Multimode EF (Encircled Flux) control, compliant with various source testing standards
- Lower insertion loss, with attenuation rate increased by 200%
- Built-in power monitoring with closed-loop monitoring, supporting three control modes
- Supports custom task settings and programming
- OMEGA series modular can integrate multiple functional modules into one for one-stop testing of optical devices
- XHASIS series rack-mount has high density, compact size, easy deployment and low cost.

Main Application

- 800G optical module testing
- Optical path loss simulation
- Optical device BER and receiving sensitivity testing
- EDFA manufacturing and inspection
- Photodetector linearity test
- Tunable source power test

Main Categories

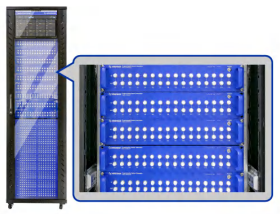
OMEGA Series Modular

- Mechanical Optical Attenuator
- MEMS Optical Attenuator

XHASIS Series Rack-Mount

- Mechanical Optical Attenuator
- MEMS Optical Attenuator

OMEGA Series Modular vs XHASIS Series Rack-Mount

Feature	OMEGA Series Modular	XHASIS Series Rack-Mount
Appearance		
Structural design	platform + modules	Rack-mounted, compact structure, small size, powerful functions
Scalability	The platform is compatible with a variety of functional test modules including optical attenuators, and supports adding or reducing modules on demand to meet the needs of diverse scenarios.	Suitable for rapid deployment of large-scale integrated test stations
Customization	Customizable channels for varied applications	Supports high-density data centers and telecom networks
Maintenance	Hot-swappable modules for quick replacement, minimizing downtime	Independent maintenance per 4 channels
Cost Efficiency	The modular solution only requires replacing modules instead of the platform	The long-term cost-effectiveness is outstanding, and it is an ideal solution for saving space and improving efficiency in 5G base stations and fiber optic network deployment.

Strict Control of Multimode EF (Encircled Flux) for Light Source Compatibility

Different multimode lasers exhibit varying EF during fiber transmission, leading to calibration errors if unaccounted. Dimension Technology's multimode attenuators utilize mode controllers and EF detection equipment to strictly comply with IEC-61280-1-4 and TIA-455-203 standards, ensuring good test accuracy under different light sources.

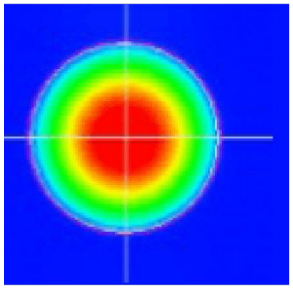


Figure 1 Overfilling

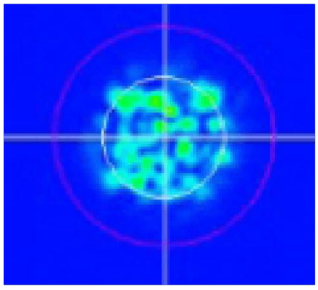


Figure 2 Under-injection

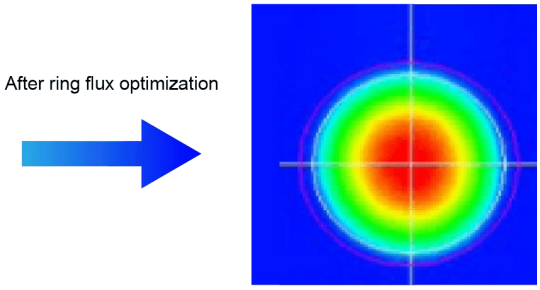
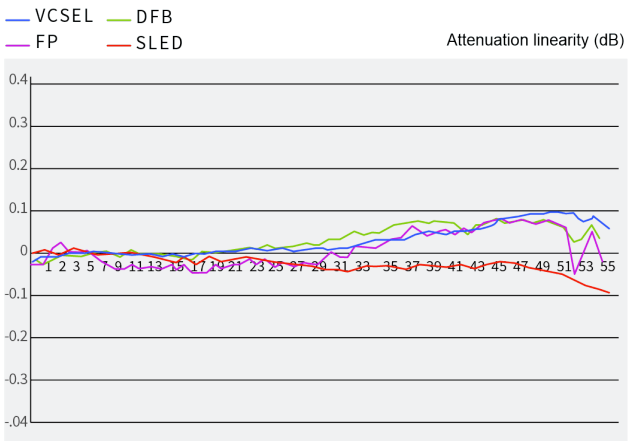


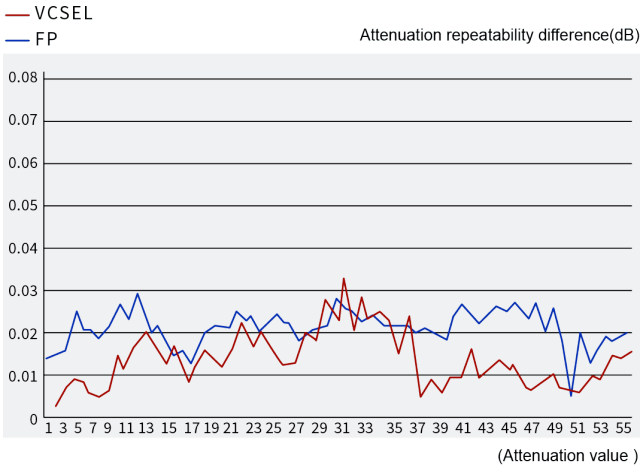
Figure 3 complies with EF standa

Note: [1] Test conditions: Use 850nm VCSEL source, OM3 optical fiber.

Test results after optimization: Full range attenuation linearity ±0.10dB

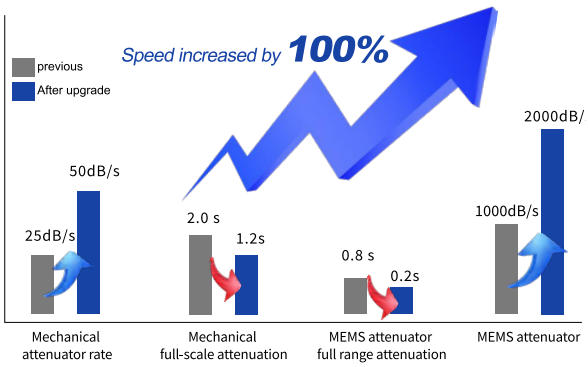
Test results after optimization: Full range attenuation linearity **±0.10dB**





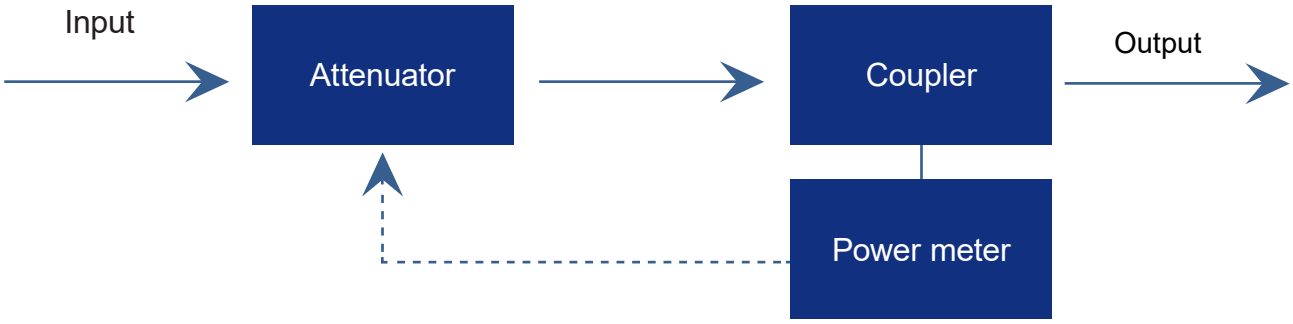
Ultra-low insertion loss and ultra-fast decay

- **Insertion loss optimization:** Through optical path structure optimization, insertion loss SM <1.0dB, MM <1.5dB .
- **Attenuation speed increased:** Mechanical attenuator speed increased from 25dB/s to 50dB/s, full-scale attenuation is 1.2s; MEMS attenuator increased from 1000dB/s to 2000dB/s , full-scale attenuation is 0.2s. The testing efficiency is greatly improved.



Built-in power monitoring closed-loop monitoring, three modes to control attenuation

- **Power monitoring function:** Add built-in optical power meter components at the input and output ends of the attenuation optical path, adjust the attenuation value with real-time feedback, and improve the attenuation accuracy to ±0.10dB .



POA Power control schematic

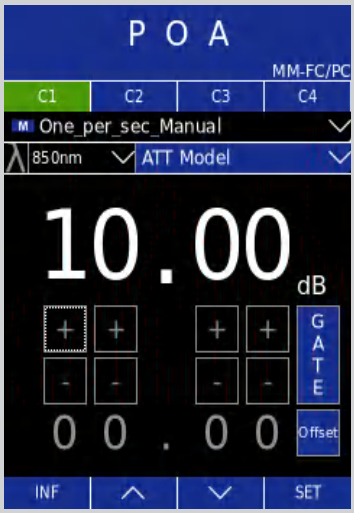
- **Three control modes:** Support multiple control modes to meet the needs of different application scenarios.

Power Monitor Mode

Real-time display of the current output power of the attenuator, making it convenient for users to detect the power intensity of the optical signal during instantaneous changes.

Power Feedback Mode

Set the attenuation according to the preset expected power value, and adjust it based on the feedback from the built-in power meter reading to ensure accurate output power.

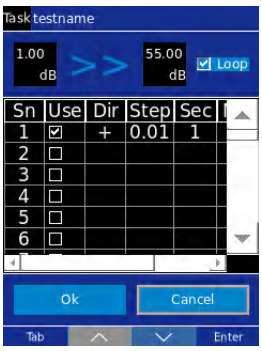


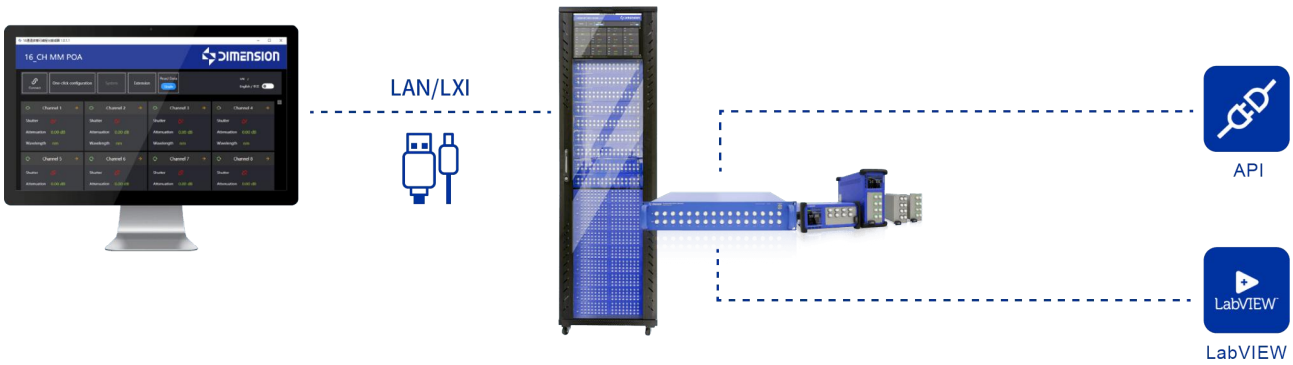
Attenuation Mode

Directly adjust the attenuation value.

Supports custom task settings and programming

- **Multiple communication methods:** OMEGA v1.O modular and XHASIS rack-mount optical attenuators provide TCP/IP or USB connection methods, while OMEGA v2.O modular is further optimized to support LXI communication.
- **Visual testing:** Equipped with visualization software, it is convenient for users to use, supports user-defined tasks, and quickly builds a test platform.
- **Automated testing:** Provides API interfaces and control instructions that encapsulate LabVIEW statements to facilitate users to quickly embed into the test system.

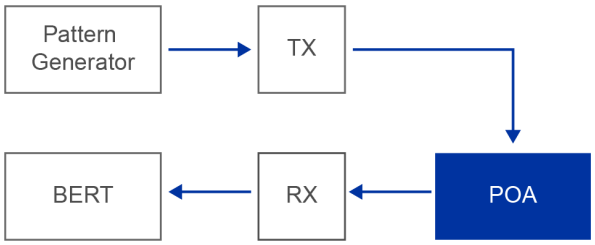




Main Application Scenarios

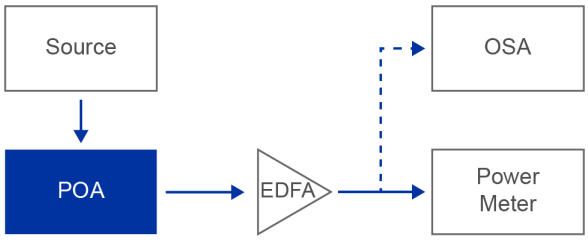
- **Optical module BER and receiving sensitivity test**

The tunable attenuator plays a key role in the BER test and receiving sensitivity test of the optical module. It simulates different channel conditions by precisely controlling the input optical power to evaluate the performance limit and stability of the optical module.



- **EDFA manufacturing and inspection**

During the manufacturing and inspection process, it is necessary to accurately and dynamically adjust the input optical power to simulate different network scenarios (such as long-distance transmission and multi-wavelength multiplexing) to ensure the reliability, stability and consistency of the EDFA.



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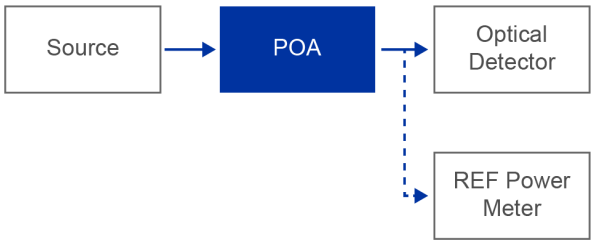


- **EDFA manufacturing and inspection**

During the manufacturing and inspection process, it is necessary to accurately and dynamically adjust the input optical power to simulate different network scenarios (such as long-distance transmission and multi-wavelength multiplexing) to ensure the reliability, stability and consistency of the EDFA.

Specifications

Parameter	SM		MM
Fiber Type	9/125 μm	9/125 μm	50/125 μm
Attenuation Mode	Mechnical	MEMS	Mechnical
Calibration light source	1310/1550 nm DFB Laser	1310/1550 nm DFB Laser	850 nm VCSEL
IL(Typ.)	<1.5 dB	<1.5 dB (with power monitor)	<1.5 dB (with power monitor)
RL (Typ.)	APC:> 55 dB;PC:>30dB		

Parameter	SM		MM
Attenuation range	> 50 dB	> 40 dB	> 55 dB
Attenuation accuracy	± 0.10 dB	± 0.15 dB	± 0.15 dB
Attenuation resolution	0.01dB	0.01dB	0.01dB
Attenuation repeatability	±0.05dB	±0.05dB	±0.15dB
Decay speed	50dB/s	2000dB/s	50dB/s
Maximum input power	±26dBm	±23dBm	±23dBm
Closed loop power range	/	+23 ~−43 dBm	
Power Monitoring Linearity	/	± 0.10 dB	
Power setting repeatability	/	0.01 dB	
Power setting resolution	USB / TCP (SCPI protocol)		
Warm-up time	20 min (storage and use temperature are the same) / 60 min (storage and use temperature are different)		
Recommended calibration cycle	2 years		
Operating temperature	10°C~40°C		
Storage temperature	-40°C~70°C		
Size	4 channels = 1U; 8/16 channels = 2U; more channels are based on combined expansion.		

Remark

[1] 850nm/1300nm for multimode.

[2] Insertion loss and return loss measurements include the connector.

[3] The above indicators are all tested at 23±3°C.

[4] SM MEMS is only available in a version with power monitoring.

[5] The sizes of XHASIS series rack-mount products vary depending on the number of channels, including 2U and 3U.

Ordering Information

- **OMEGA Series Modular**

POA — [ ] [ ][ ] [ ][ ] [ ] — [ ][ ]

Type	
1	Mechanical SM
2	Mechanical M M
3	MEMS SM

Channel	
01	1CH
02	2CH
04	4CH
.....	.....
XX	XXCH

Fiber Type	
09	9/125μm
50	50/125μm

A/C	
A	No Power Meter
C	Built-in Power Meter

Connector	
FA	FC/APC
FP	FC/PC
SA	SC/APC
SP	SC/PC
LA	LC/APC
LP	LC/PC
X	Customize

Example:

Model: POA-21650C-FA Mechanical 16-channel Multimode Built-in Power Meter FC/APC Connector Optical Attenuator

PS. Single-mode mechanical type does not support power monitoring selection

Ordering Information

POA □ □ □ □ □ — □ □

Model	
2	Mechanical MM
3	MEMS S M

Channel	
1	1CH
2	2CH
4	4CH
8	8CH
9	16CH

Fiber	
09	9/125μm
19	9/125μmPM
50	50/125μm
62	62.5/125μm

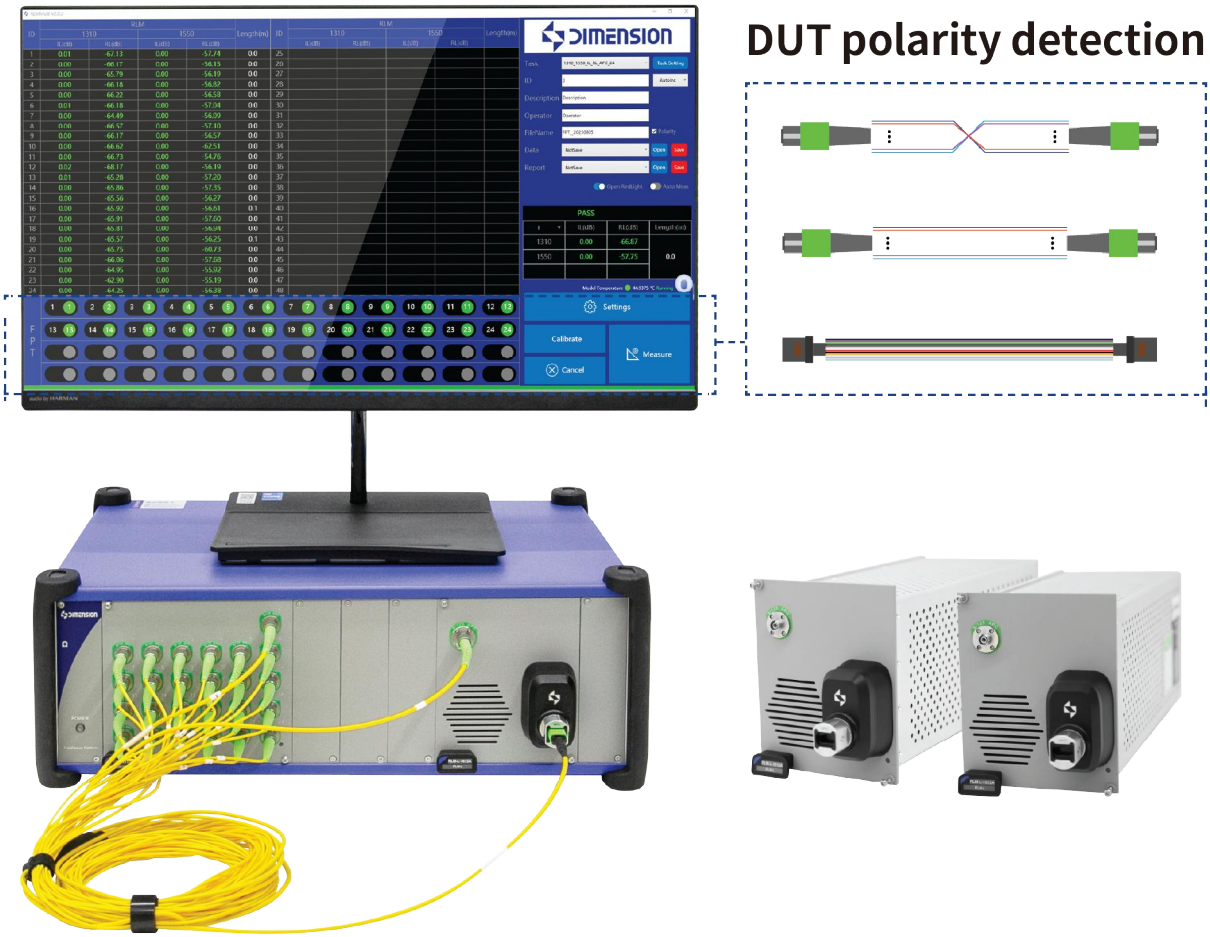
A/C	
A	No Power Mete r
C	Built-in Power Meter

Connector	
FA	FC/APC
FP	FC/PC
SA	SC/APC
SP	SC/PC
LA	LC/APC
LP	LC/PC
X	custom

Example:

Model: POA-X-21650C-FA Mechanical 16-channel Multimode Built-in Power Meter FC/APC Connector Optical Attenuator

Multi-channel polarity IRL



Currently, insertion and return loss testers on the market can only measure IL and RL, but cannot quickly determine the polarity of multi-core fibers simultaneously. Dimension Technology's Polarity Insertion & Return Loss Tester adopts a brand-new design and technology to achieve fully automated three-in-one testing of multi-core fiber IL, RL, and polarity.
This device not only provides simple polarity judgment but also features polarity learning, which addresses the increasing variety of fiber arrangements. It greatly improves production efficiency, reduces equipment investment costs, and ensures the reliability and accuracy of IL and RL measurements while enhancing efficiency.

Main Features

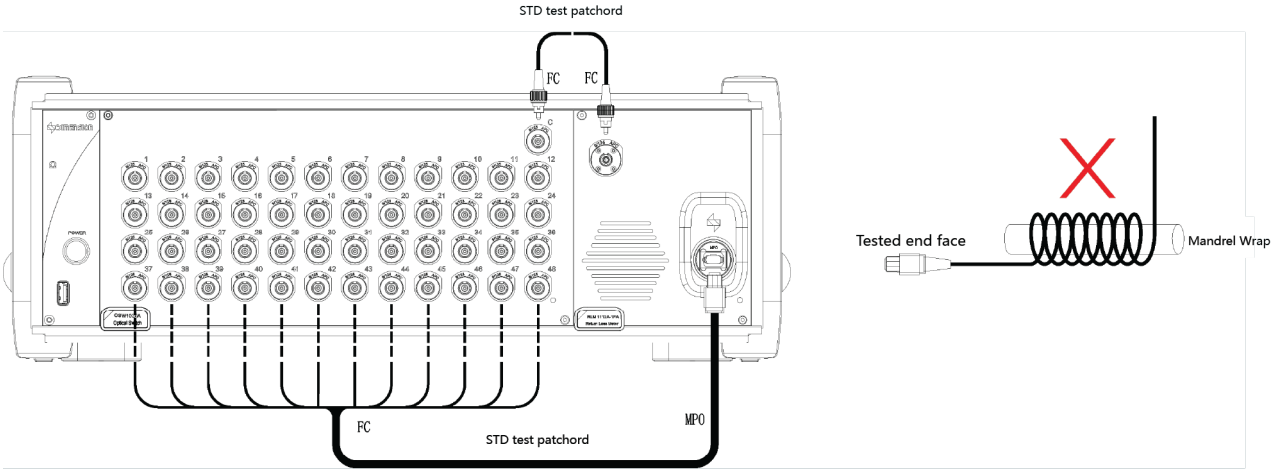
- RL Non-Wrap Testing-Single-channel IL RL & Polarity in as fast as 1.5s
- Supports fiber polarity testing for various optical components
- Three-in-one automated testing of multi-core fiber IL, RL & Polarity
- Save work stations and increase production and test efficiency by more than 6 times
- Abundant and interchangeable, high-reliability detector adapter connectors
- Support PC segment control software, automatically save test data reports, and support remote network control

Applications

- Jumper, connector performance testing
- Performance testing of optical passive components
- Construction of automatic jumper production line

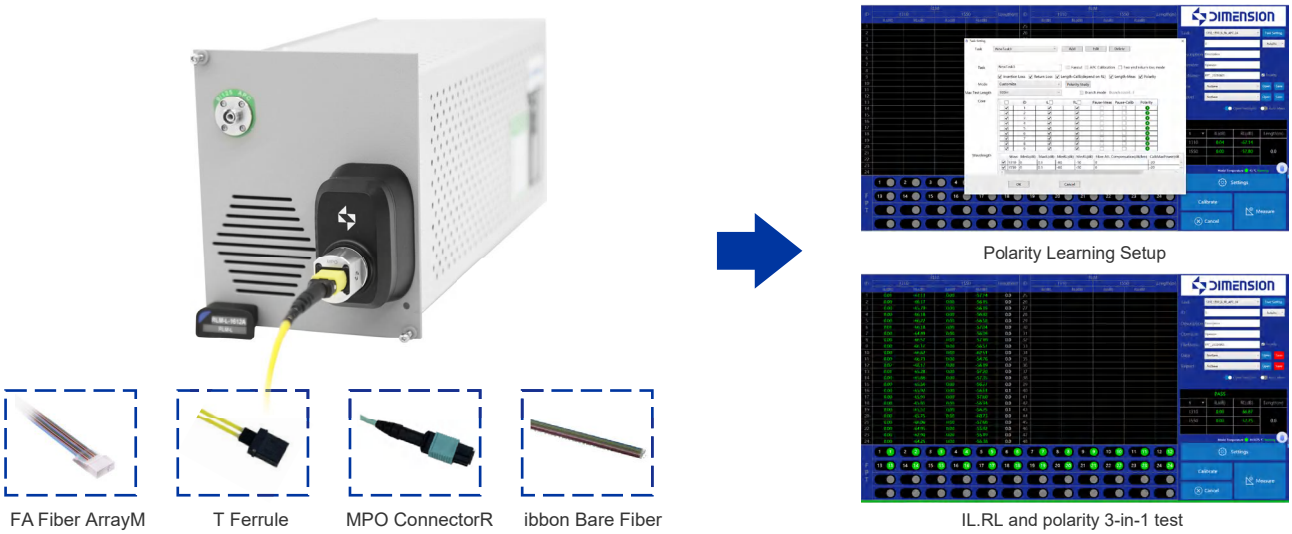
RL mandrel-free test, IL, RL and polarity detection, Single channel test time as low as 1.5S

Based on the principle of optical time domain detection, the mandrel-free test of return loss is realized. Using high-speed sampling design and software optimization algorithm, low IL, RL and polarity detection single channel to 1.5S (fast mode).



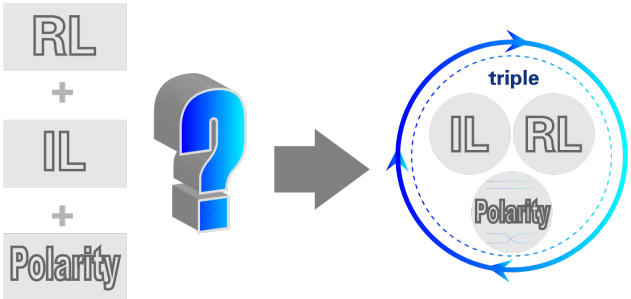
Support various optical devices to test fiber polarity

Based on Dimension Technology's extensive experience in optical lens research, the system featuresan ultra-wide photosensitive detection area, enabling flexible and efficient polarity learning foroptical components within the range.



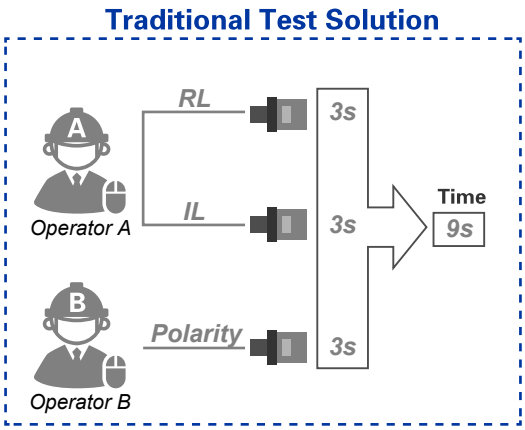
Multi-core fiber IL.RL and polarity three-in-one automatic test

The multi-channel polarity IL/RL tester enables fast, wrap-free return loss and insertion loss testingfor multi-fiber patch cords, while simultaneously performing polarity detection - achieving a true3-in-1 automated test for insertion loss, return loss, and polarity.

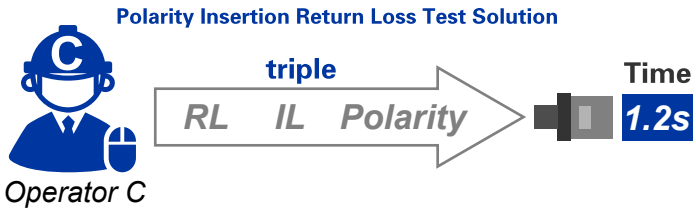


Save work stations, increase production and test efficiency by more than 6 times

The multi-channel polarity return loss tester can automatically test IL, RL, and Polarity at the same time, reducing the need for employees to plug and unplug the measurement jumper and equipment multiple times between testing IL/RL and polarity. Single-channel IL, RL, Polarity simultaneously test time as low as 1.2S (fast mode). The test efficiency is increased by more than 600%, and the cost of customer equipment investment can also be reduced.

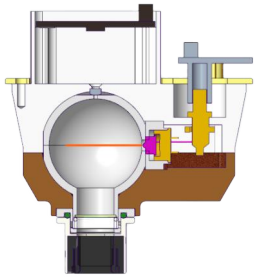


Efficiency developed to 600%



Abundant and interchangeable, high-reliability connectors

In order to meet the different needs of customers, a series of rich and interchangeable detectors with high reliability have been developed. Adapter connector, easy to use, one-time test loss and polarity, no need to plug and unplug again.



Humanized software design

With a simple and clear software UI design, users can customize the test report, which can automatically save and upload test data and reports.

Save work stations, increase production and test efficiency by more than 6 times

The multi-channel polarity return loss tester can automatically test IL, RL, and Polarity at the same time, reducing the need for employees to plug and unplug the measurement jumper and equipment multiple times between testing IL/RL and polarity. Single-channel IL, RL, Polarity simultaneously test time as low as 1.2S (fast mode). The test efficiency is increased by more than 600%, and the cost of customer equipment investment can also be reduced.

Specifications

Basic product model		RLM-HP-1612A-1FA-24	RLM-HP-5656A-1FA-24	RLM1612A-1FA-24	RLM5656A-1FA-24	RLM-L-1612A-1FA-24	RLM-L-5656A-1FA-24
Product series		High Performance	High Performance	Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability*	168h, ±0.02db		±0.01dB(<0.5H); ±0.02dB(<8H)		±0.02dB(<0.5H); ±0.03dB(<8H)	
	IL Repeatability*	±0.02dB					
	IL Accuracy*	0~1dB:±0.02dB 1~10dB:±0.1dB 10~15dB:±0.5dB	0~1dB:±0.02dB 1~10dB:±0.1dB 10~15dB:±0.5dB	0~1dB:±0.02dB 1~10dB:±0.1dB 10~15dB:±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB
RL section	RL Range	-30~-80dB	-15~-60dB	-30~-80dB	-15~-60dB	-30~-72dB	-15~-55dB
	RL Accuracy	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-60dB	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-65dB: ±1.0dB -65~-70dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB
Others	Fiber length (Min)	DUTreflections (both ends)<-50dB: 0.7m; DUTreflections (both ends)>-50dB: 1.5m					
	Once Testing Time	<18 seconds (Fast Mode: SM MPO12 <18s; MM MPO12 <21s)					
	Display resolution	0.01dB					
Mainframe	Input power	AC90~ 260V/50HZ					
	Warming up time	30minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)					
	Working temperature	10°C~40°C					
	Storage temperature	-40°C~70°C					
	Size	ALPHA platform: 359mmx274mmx115mm, OMEGA platform: 462mmX374mmX171mm					

*All specifications given at temperature 23 °C±1 °C,after a 30-minute warm-up,with FC/PC connector.

*Added variable caused by optical switch would be ±0.03dB if using MPO/MTP.

Ordering Information

RLM [ ] [ ] [ ] [ ] [ ] [ ] — [ ] [ ] — [ ]

Series	
/	Professional
-L	Liter
-HP	High Performance

Laser fiber type	
1	SM 9/125
5	MM 50/125
9	SM 9/125&MM 50/125 Dual Module

Detector type	
6	Polarity integrating sphere
7	External polarity integrating sphere- Dual
8	External polarity intergrating sphere-Single

Laser wavelength[1]	
1	1310-SM
2	1550-SM
3	1490-SM
4	1625-SM
5	850-MM
6	1300-MM

RL test	
A	Tangle-Free OTDR OMEGA Chassis
C	Tangle-Free OTDR OMEGA Lite Chassis

Laser output port	
1	1CH

Laser connector type	
FA	FC/APC

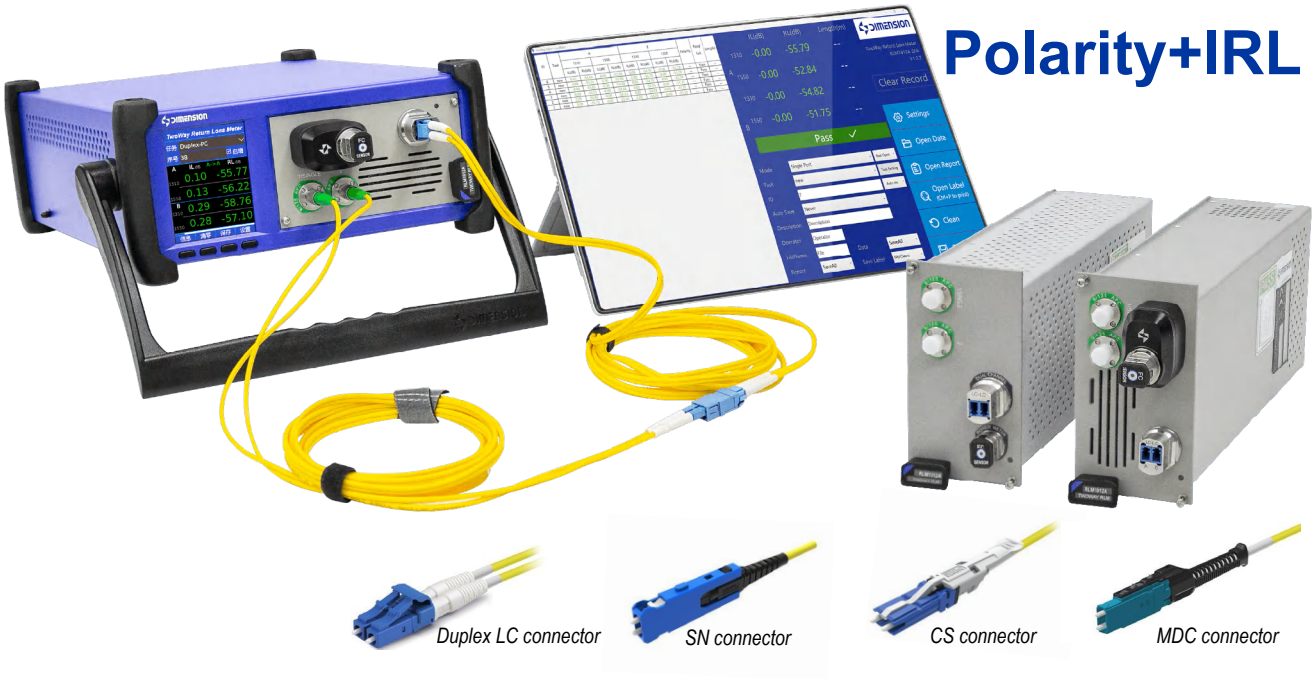
Fiber Core Count	
24	24CH
48	48CH
96	96CH

Example:
RLM1612A-1FA-24 24-core Mandrel-free polarized IRL test module,1310/1550 ,SM 9/125 InGaAs 2mm(Polar integrating sphere), Laser output 1CH FC/APC

Note: RL test model A/C supports dual laser wavelength. Two-digit code represents two laser wavelengths. Customers can choose laser wavelength or customized laser wavelength in the list.Model A/C supports four single-mode wavelengths, and XX should be selected for the two-digit coding.

TwoWay Fiber Polarity and Return Loss Meter

Polarity+IRL



The TwoWay Dual-Channel Polarity and Return Loss Tester is an innovative product from Dimension Technology, designed to address current challenges in testing duplex fiber jumpers. It employs a groundbreaking design concept that enables simultaneous automatic testing of IL, RL, and Polarity. The concurrent testing time for IL, RL, and Polarity is less than 1.2 seconds (in fast mode), significantly improving testing efficiency and reducing customer equipment investment costs. While enhancing efficiency, it also ensures the measurement reliability of IL and RL, achieving a minimum detectable return loss of -80dB (single-mode). The fast and accurate measurement capabilities of TwoWay make it an effective tool for enhancing production efficiency and quality control.

Main Features

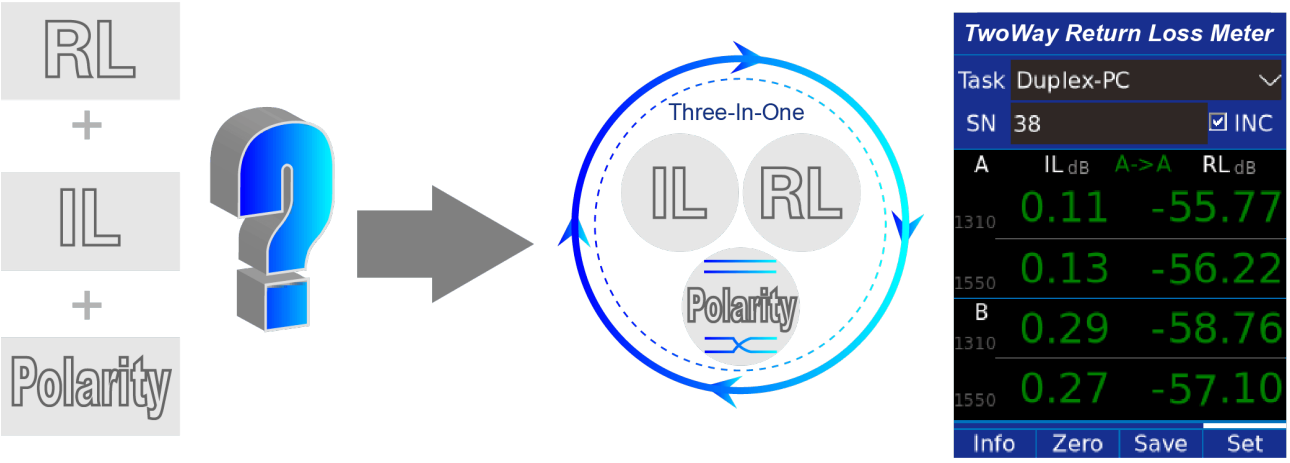
- Integrated Automatic Testing of Duplex Fiber IL, RL, and Polarity
- Tangle-free RL testing; IL, RL, and Polarity measurement time under 1.2s
- Saves workstation space and increases production test efficiency by over 300%
- Minimum detectable RL: -80dB (Single-mode)
- Minimum measurable fiber length: 0.7 meters
- Supports testing of single-core and duplex LC, CS, SN, MDC, and other fiber jumpers
- Wide range of interchangeable, highly reliable detector adapter connectors
- Supports multiple control methods: buttons, touchscreen, Ethernet, and USB
- Platform + modular design for easy application expansion
- Supports PC control software, automatically saves test data reports, and enables remote network control

Applications

- Patch Cord and Connector Performance Testing
- Optical Passive Device Performance Testing

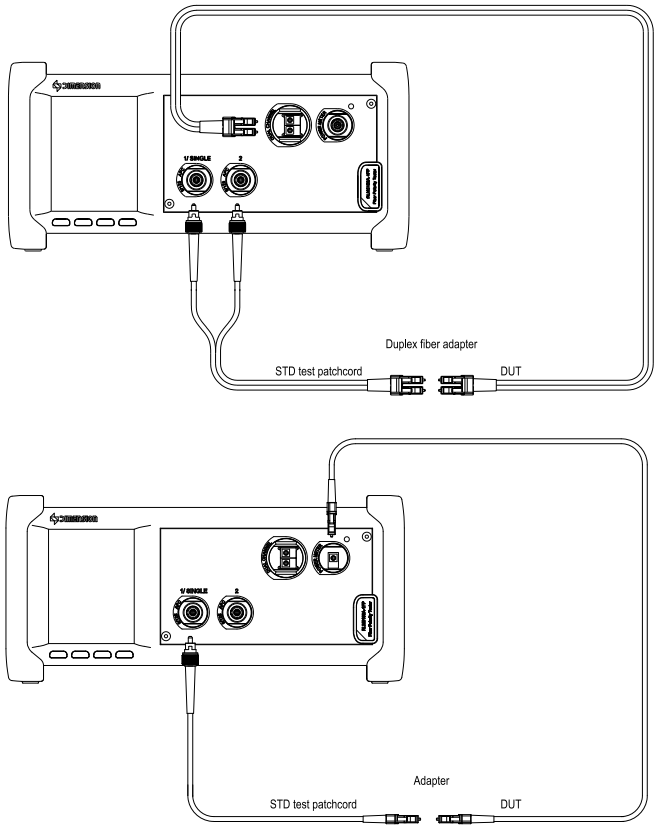
Three-in-one automatic test of duplex fiber IL,RL and polarity

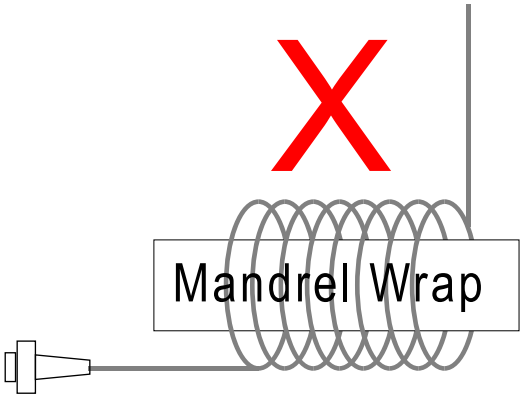
TwoWay fiber polarity and return Loss meter can quickly complete the winding-free return loss and insertion loss test of the duplex fiber jumper. At the same time, it can realize the polarity detection of the duplex fiber, and truly realize the three-in-one automatic loss and polarity test.



RL mandrel-free test, IL,RL and polarity test time is less than 1.2s

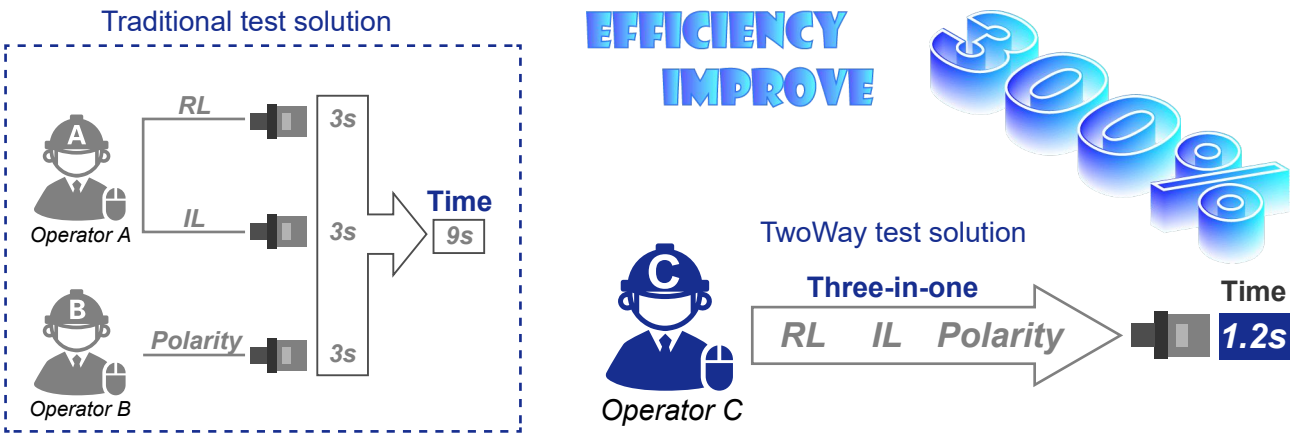
TwoWay is based on the principle of optical time domain detection to realize the winding-free return loss test. Using high-speed sampling design and software optimization algorithm, the total time of insertion loss, return loss and polarity detection is less than 1.2s (fast mode)





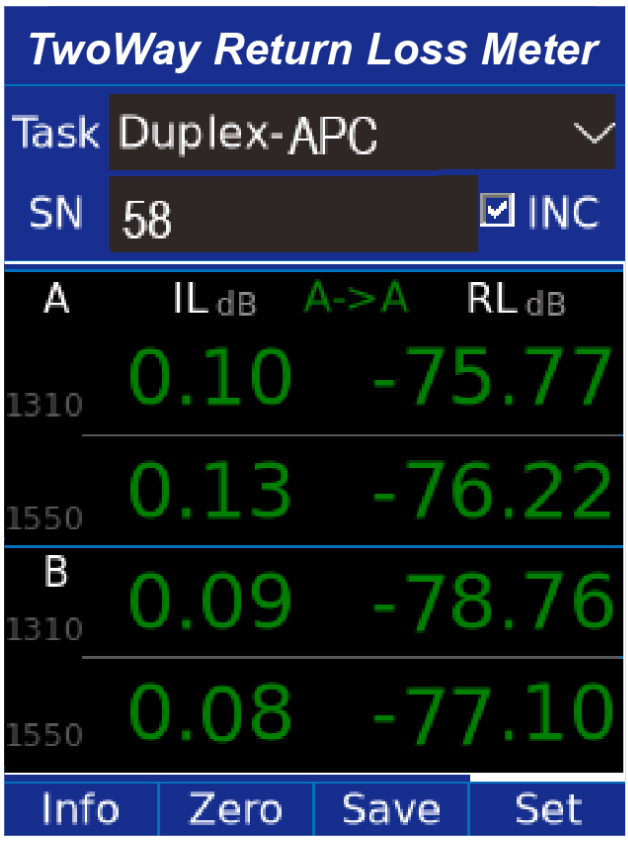
Reduce test work station and increase production test efficiency by more than 300%

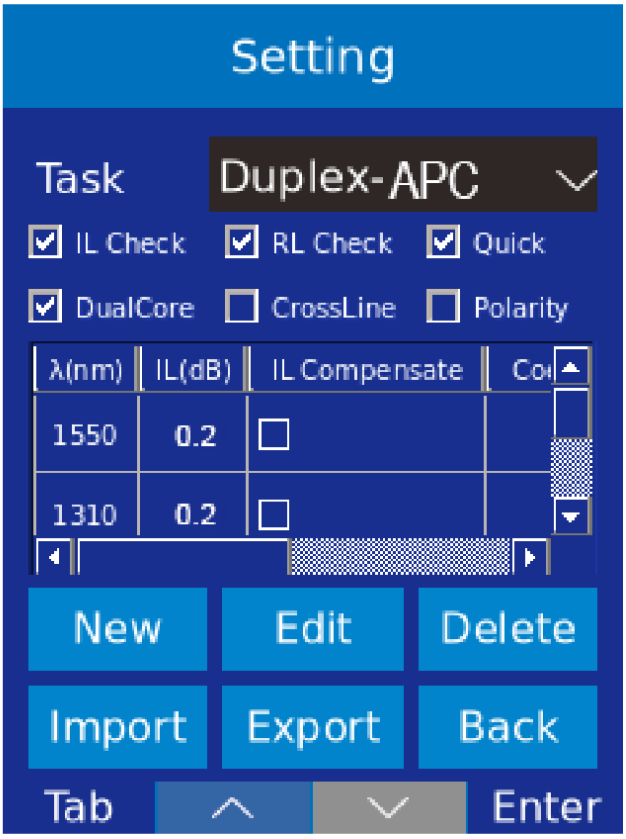
TwoWay fiber polarity and return Loss meter can automatically test IL, RL, and Polarity at the same time, eliminating the need for employees to switch between testing IL/RL and polarity multiple times to switch testing STD jumpers and equipment. IL, RL, Polarity test time is less than 1.5s at the same time (fast mode), the test efficiency is improved by more than 300%, and the customer's test equipment investment cost can be reduced at the same time.



RL minimum detectable down to -80dB(SM), Minimum measuring fiber length 0.7 m

TwoWay use the Dimension self-developed high-sensitivity detection circuit and the optimized software algorithm, RL can achieve the detection of -80dB(SM), which can meet the detection requirements of high-performance single mode patchcord (SM/APC).





Rich interchangeable, high reliability detector adapter, Compatible with single fiber/ duplex fiber test

To meet the needs of customers, Dimension has developed a series of interchangeable, high reliability detector adapter, including duplex LC, SN, CS, MDC new connectors, that are flexible and convenient to use,and test loss and polarity at one time, no need re-plug.

Duplex LC connector

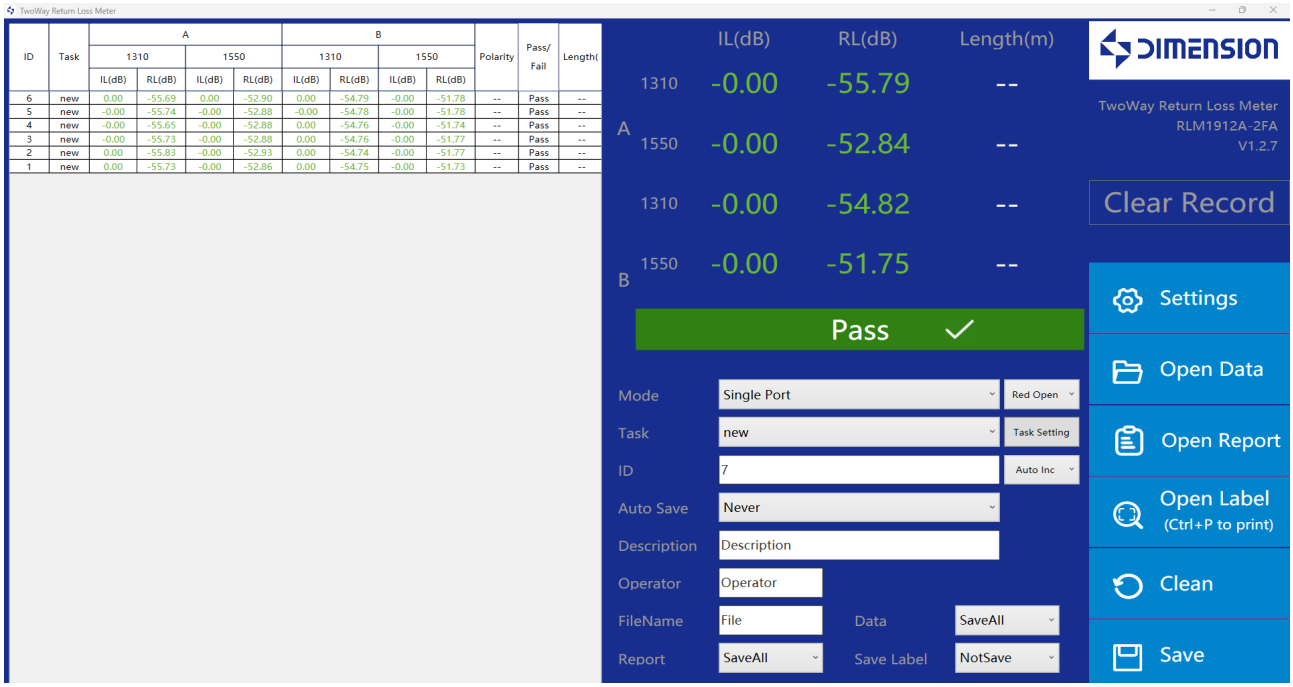
SN connector

CS connector

MDC connector

Support pc-side control software, automatic saving test data/report, Support remote network control

Concise and clear software UI design, users can customize test reports, and can automatically save and upload test data and reports.



Platform + module design, multi-application and scalable

Dimension's universal optical test platform provides a whole set optical test solution, it includes a dual-slot ALPHA test platform and an 11-slot OMEGA test platform, which is compatible with a wide range of functional test modules such as IRL test module. With hot swappable, rogrammable, and scalable,easy to maintain&manage, with low overall cost. Supports many remote control modes, including network, USB, touch screen and physical button, etc.
Users can integrate and expand different functional modules in following-up, such as optical switches,stable light sources, POA testers, BER testers, and high-speed optical power meters, to achieve one-stop test for optical devices and other products' various performances.

OMEGA test platform

ALPHA test platform

Specifications

Basic product model		RLM-HP-1912A-2FA	RLM-HP-5956A-2FA	RLM1912A-2FA	RLM5956A-2FA	RLM-L-1912A-2FA	RLM-L-5956A-2FA
Product series		High Performance	High Performance	Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability*	168h, ±0.02db		±0.01dB(<0.5H); ±0.02dB(<8H)		±0.02dB(<0.5H); ±0.03dB(<8H)	
	IL Repeatability*	±0.02dB					
	IL Accuracy*	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB
RL section	RL Range	-30~-80dB	-15~-60dB	-30~-80dB	-15~-60dB	-30~-72dB	-15~-55dB
	RL Accuracy	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-65dB: ±1.0dB -65~-70dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB
Others	Fiber length (Min)	DUTreflections (both ends)<-50dB: 0.7m; DUTrefections (both ends)>-50dB: 1.5m					
	Once Testing Time	<0.6s (Single wavelength)					
	Display resolution	0.01dB					
Mainframe	Input power	AC90~ 260V/50HZ					
	Warming up time	30minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)					
	Working temperature	10°C~40°C					
	Storage temperature	-40°C~70°C					
	Size	ALPHA platform: 359mmx274mmx115mm, OMEGA platform: 462mmX374mmX171mm					

*Default test conditions for related parameters: Equipment warm-up time of 30 minutes; Ambient temperature of 23±1°C; FC/PC single-fiber patch cord.

Detector Adaptors Selection Guide

Number	PN	Name	Description	Image
1	204910022	OPM duplex LC adapter (RLM use only)	Detection interface, suitable for LC/duplex LC connector(TwoWay RLM use only)	
2	204910026	OPM SN adapter	Detection interface, suitable for SN connector (TwoWay RLM use only)	
3	204910027	OPM CS adapter	Detection interface, suitable for CS connector (TwoWay RLM use only)	
4	204910028	OPM MDC JR adapter	Detection interface, suitable for MDC JR connector(TwoWay RLM use only)	
5	204910029	OPM MDC SR adapter	Detection interface, suitable for MDC SR connector(TwoWay RLM use only)	
6	204810002	OPM FC adapter	Detection interface, suitable for FC connector	
7	204810003	OPM SC adapter	Detection interface, suitable for SC connector	
8	204810004	OPM LC adapter	Detection interface, suitable for LC connector	
9	204810007	OPM 2.5 ferrule adapter	Detection interface, suitable for FC/SC/ST ... connector and 2.5mm ferrule	
10	204810006	OPM 1.25 ferrule adapter	Detection interface, suitable for LC/duplex LC /SN ... connector and 1.25mm ferrule	

Number	PN	Name	Description	Image
11	204810014	OPM Integrating Sphere	Provide wide numerical aperture, can be used with MPO/ duplex LC adapters	
12	204810015	OPM MPO adapter	Detection interface, suitable for MPO12/ MPO16 connector	
13	204810017	OPM Bare- fiber adaptor	Detection interface, suitable for bare-fiber power test application	

Ordering Information

RLM [ ] [ ] [ ] [ ] [ ] [ ] — [ ] [ ] [ ]

Series	
/	Professional
-L	Liter
-HP	High Performance

Laser fiber type	
1	SM 9/125
5	MM 50/125

Detector type	
3	Dual PD& InGaAs 2mm PD
9	Dual PD& Standard Integrating Sphere

Laser wavelength[1]	
1	1310-SM
2	1550-SM
3	1490-SM
4	1625-SM
5	850-MM
6	1300-MM

RL test	
A	Tangle-Free OTDR

Laser output port	
1	1CH

Laser connector type	
FA	FC/APC

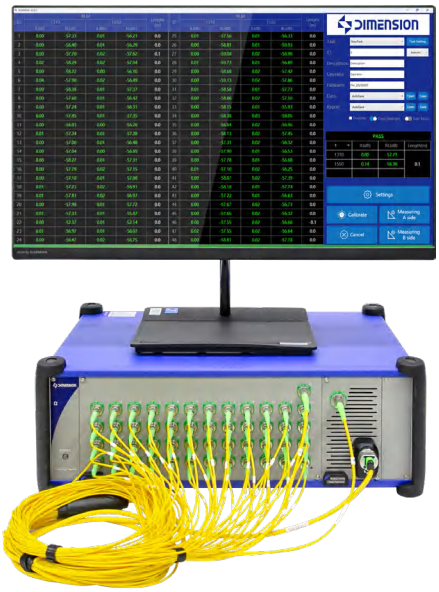
Fiber Core Count	
01	Single-core or Dual-core Compatible with ALPHA Chassis

Eg: RLM1312A-2FA TWOWAYMandrel-free IRLtestmodule Pro, 1310/1550, SM9/125, InGaAs 2mm(TWOWAY), Laser output 2CHFC/APC

Note: 1. RL test model A/C supports dual laser wavelength. Two-digit code represents two laser wavelengths. Customers can choose laser wavelength or customized laser wavelength in the list.Model A/B supports four single-mode wavelengths, and XX should be selected for the two-digit coding.

2. Only single-mode lite version is available.

Multifiber IRL Meter



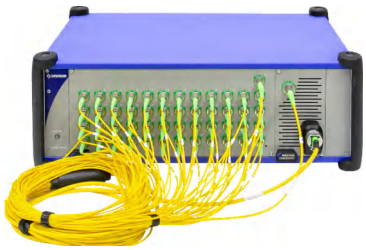
The Dimension Multi-fiber Insertion and Return Loss Tester utilizes a highly stable light source and a high-precision optical power meter to achieve tangle-free Return Loss testing and high-speed Insertion Loss testing. The single-wavelength loss measurement time is less than 0.6s, with a minimum detectable Return Loss of -80dB. The RLM series supports six test wavelengths for both single-mode and multi-mode fibers (Multi-mode: 850nm, 1300nm; Single-mode: 1310nm, 1490nm, 1550nm, 1625nm). Its optimally designed integrating sphere can measure the loss of both densely-channeled MTP/MPO connectors and duplex LC devices. The fast and accurate measurement capabilities of the RLM make it an effective tool for enhancing production efficiency and quality control.

Main Features

- Platform + modular design for easy application expansion
- Tangle-free RL testing; single-fiber dual-wavelength test speed under 0.6s
- Minimum detectable RL: -80dB (Single-mode)
- Minimum measuring fiber length 0.7m
- Optical power meter's minimum detectable power: -70dBm (without integrating sphere)
- A wide range of interchangeable, highly reliable detector adapter connectors
- Supports multiple control methods such as Ethernet and USB
- Software UI is simple and intuitive for easy user operation
- Automatically saves test data reports and supports remote control

Applications

- Patch Cord and Connector Performance Testing
- Optical Passive Device Performance Testing



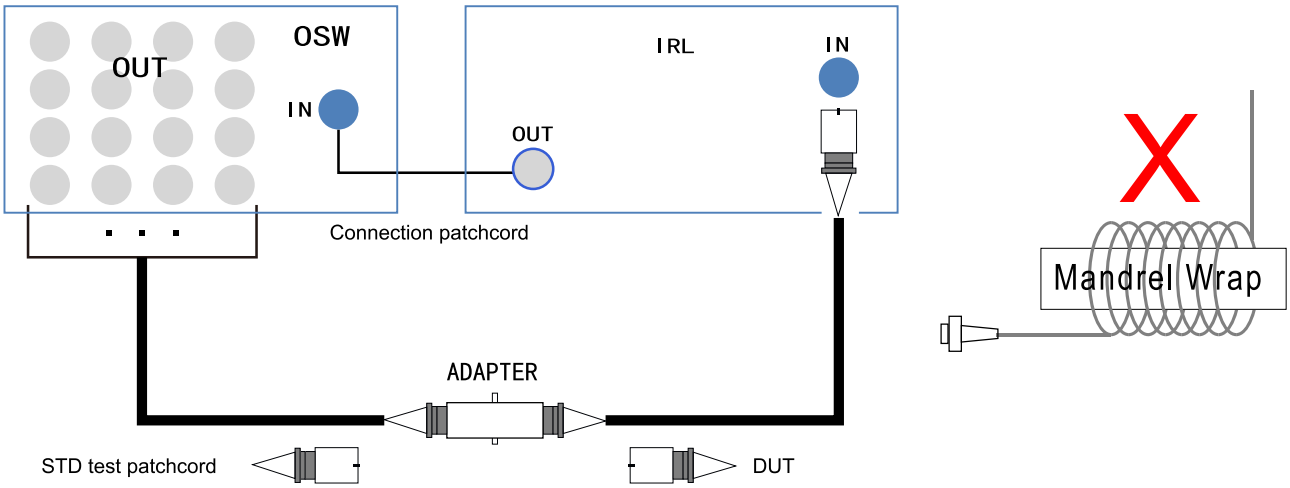
Platform + module design, high scalability

Dimension Technology's 11-slot OMEGA Universal Optical Test Platform is compatible with various functional test modules, including the RLM series insertion and return loss test modules. It offers significant advantages such as hot-swappability, programmability, high scalability, ease of maintenance and management, and low total cost of ownership.

Customers can configure the system within a single OMEGA chassis by selecting single-mode RLM modules, multi-mode RLM modules, and supporting optical switches (enabling up to 24-fiber single-mode and multi-mode RLM integration in one chassis). This provides a cost-effective integrated testing solution for both single-mode and multi-mode applications.

RL mandrel-free test, dual wavelength test speed less than 8s (MPO12)

Based on the Optical Time Domain Detection principle, it enables tangle-free Return Loss (RL) testing. The integrated design allows for simultaneous Insertion Loss (IL) and RL measurements. With high-speed sampling circuits and optimized algorithms, the dual-wavelength test speed is under 8 seconds (In fast measurement mode: MPO12 single-mode dual-wavelength testing under 7.2s; multi-mode dual-wavelength testing under 8s).



RL minimum detectable down to -80dB(single mode), Minimum measuring fiber length 0.7 m

Using the dimension self-developed high-sensitivity detection circuit and the optimized software algorithm, RL can achieve the detection of -80dB(single mode), which can meet the detection requirements of high-performance single mode patchcord (SM/APC).

Rich interchangeable, high reliability detector adapter

To meet the needs of customers, dimension has developed a series of interchangeable, high reliability detector adapter, that are flexible and convenient to use. Optimized integrating sphere, compatible with MPO/ duplex LC adapters, no need to repeatedly plug and plug in one test.

Software UI concise and clear, easy and useful

Based on years of customer feedback, the deeply optimized software UI is concise and clear, easy and useful. Users can customize the test report, can automatically save, upload test data and report to the server.

Specifications

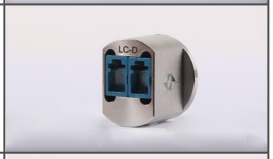
Basic product model		RLM-HP-1412A-1FA-24	RLM-HP-5456A-1FA-24	RLM1412A-1FA-24	RLM5456A-1FA-24	RLM-L-1412A-1FA-24	RLM-L-5456A-1FA-24
Product series		High Performance	High Performance	Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability*	168h, ±0.02db		±0.01dB(<0.5H); ±0.02dB(<8H)		±0.02dB(<0.5H); ±0.03dB(<8H)	
	IL Repeatability*	±0.02dB					
	IL Accuracy*	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB
RL section	RL Range	-30~-80dB	-15~-60dB	-30~-80dB	-15~-60dB	-30~-72dB	-15~-55dB
	RL Accuracy	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-65dB: ±1.0dB -65~-70dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB
Others	Fiber length (Min)	DUT reflections (both ends)<-50dB: 0.7m; DUT reflections(both ends)>-50dB:1.5m					
	Once Testing Time	HP<1.0s per channel(<1.0s Per channel) Lite/Pro<1.1s per channel(<1.0s Per channel)					
	Display resolution	0.01dB					
Mainframe	Input power	AC90~ 260V/50HZ					
	Warming up time	30minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)					
	Working temperature	10°C~40°C					
	Storage temperature	-40°C~70°C					
	Size	ALPHA platform: 359mmx274mmx115mm, OMEGA platform: 462mmX374mmX171mm,					

*Default test conditions for related parameters: Equipment warm-up time of 30 minutes; Ambient temperature of 23±1°C; FC/PC single-fiber patch cord. If multi-fiber cables are used for verification, an additional error variable of ±0.03dB introduced by the optical switch must be accounted for in the parameters.

Detector Adaptors Selection Guide

Number	PN	Name	Description	Image
1	204810002	OPM FC adapter	Detection interface, suitable for FC connector	
2	204810003	OPM SC adapter	Detection interface, suitable for SC connector	

3	204810004	OPM LC adapter	Detection interface, suitable for LC connector	
4	204810007	OPM 2.5 ferrule adapter	Detection interface, suitable for FC/SC/ST ... connector and 2.5mm ferrule	

Number	PN	Name	Description	Image
5	204810006	OPM 1.25 ferrule adapter	Detection interface, suitable for LC/duplex LC /SN ... connector and 1.25mm ferrule	
6	204810014	OPM Integrating Sphere	Provide wide numerical aperture, can be used with MPO/ duplex LC adapters	
7	204810015	OPM MPO adapter	Detection interface, suitable for MPO12/MPO16 connector	
8	204810016	OPM duplex LC adapter	Detection interface, suitable for LC/duplex LC connector	
9	204810017	OPM Bare- fiber adaptor	Detection interface, suitable for bare-fiber power test application	

Ordering Information

RLM [ ] [ ] [ ] [ ] [ ] [ ] — [ ] [ ] — [ ]

Series	
/	Professional
-L	Liter
-HP	High Performance

Laser fiber type	
1	SM 9/125
5	MM 50/125
9	SM 9/125&MM 50/125 Dual Module

Detector type	
4	Standard Integrating Sphere
5	External Standard Integrating Sphere
9	Dual PD & Standard Integrating Sphere
A	External polarity integrating sphere- Dual
B	External polarity intergrating sphere- Triple
C	External polarity intergrating sphere- Quad

Laser wavelength	
1	1310-SM
2	1550-SM
3	1490-SM
4	1625-SM
5	850-MM
6	1300-MM

RL test	
A	OTDR (Tangle-Free) OMEGA Chassis
C	OTDR (Tangle-Free) OMEGA Chassis

Laser output port	
1	1CH

Laser connector type	
FA	FC/APC

Number of cores	
24	24CH
48	48CH
96	96CH

Eg: RLM1412A-1FA-24 24-core Mandrel-free OMEGA IRL test module Pro, 1310/1550, SM 9/125 InGaAs 2mm, (Fixed integrating sphere) , Laser output 1CH FC/APC

Note: RL test model A/C supports dual laser wavelength. Two-digit code represents two laser wavelengths. Customers can choose laser wavelength or customized laser wavelength in the list.RLM module can support 4 single-mode wavelengths (red light is not included in the four wavelengths), and the selection code can be followed by the same, such as selecting red light and 1310, 1550, 1625 as RLM-140124A-1FA.

Single fiber IRL Meter

The Dimension single-Core Insertion and Return Loss Tester adopts a high-stability light sourceand a high-precision optical power meter, enabling non-wrap return loss testing and high-speedinsertion loss measurement. A single wavelength loss test takes less than 0.6 seconds, and the system can detect return loss aslow as -80 dB. The RLM supports a total of six test wavelengths for both single-mode and multimode fibers(Multimode: 850 nm,1300 nm; Single-mode: 1310 nm, 1490 nm, 1550 nm, 1625 nm). With its fast and accurate measurement capabilities, RLM is an effective tool for improvingproduction efficiency and quality control.

Main Features

- Platform + modular design for easy application expansion
- Tangle-free RL testing; testing speed for single fiber with dual wavelengths is less than 0.6s
- Minimum detectable RL is -80dB (Single-mode)
- Minimum measurable fiber length: 0.7 meters
- Optical power meter's minimum detectable power: -70dBm (without using an integrating sphere)
- A wide range of interchangeable, highly reliable detector adapter connectors
- Supports multiple control methods such as Ethernet and USB
- Software UI is simple and intuitive for easy user operation
- Automatically saves test data reports and supports remote control

Applications

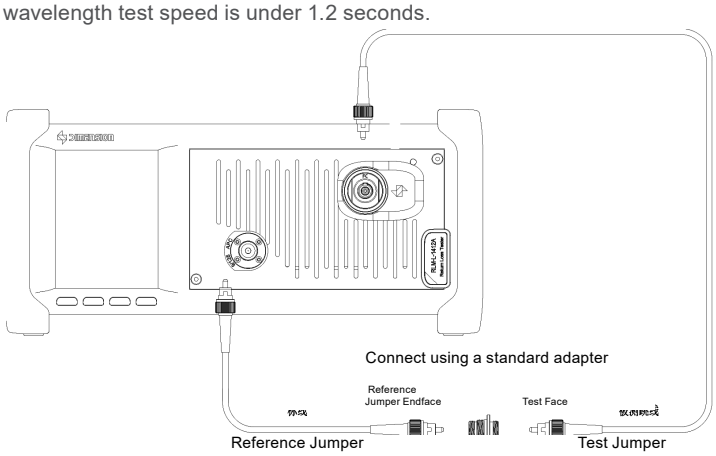
- Patch cord and connector performance testing
- Optical passive device performance testing

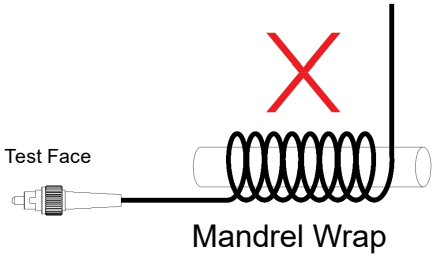
OMEGA test platform

ALPHA test platform

RL mandrel-free test, dual wavelength test speed less than 1.2s

Based on Optical Time Domain Detection principles, it enables tangle-free Return Loss (RL) testing. Its integrated design allows for simultaneous Insertion Loss (IL) and RL measurements. Utilizing high-speed sampling circuits and optimized algorithms, the dual-wavelength test speed is under 1.2 seconds.



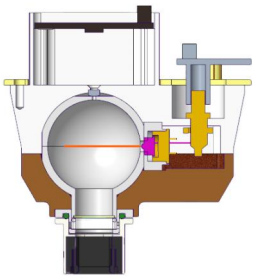


RL minimum detectable down to -80dB(single fiber single mode), Minimum measuring fiber length 0.7m

Using the dimension self-developed high-sensitivity detection circuit and the optimized software algo rithm, RL can achieve the detection of -80dB(single fiber single mode), which can meet the detection requirements of high-performance single mode patchcord (SM/APC).

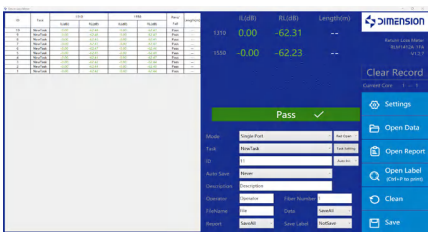
A wide range of interchangeable, highly reliable detector adapter connectors

To meet diverse customer requirements, Dimension has developed a series of versatile, interchangeable, and highly reliable detector adapter connectors. The user-friendly, optimally designed integrating sphere is compatible with MPO and duplex LC connectors, enabling complete testing without repeated plugging and unplugging.



Support PC control software, automatically save test data+ report, support remote network control

Concise and clear software UI design, users can customize test reports, and can automatically save and upload test data and reports to the sever.



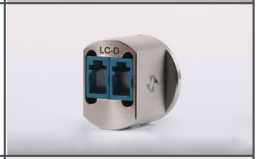
Specifications

Basic product model		RLM-HP-1412A-1FA	RLM-HP-5456A-1FA	RLM1112A-1FA	RLM5156A-1FA	RLM-L-2175A-2FA	RLM-L-5156A-1FA
Product series		High Performance	High Performance	Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser	LED/Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1	IEC-61280-4-1	IEC-61280-4-1
IL section	IL Stability*	168h, ±0.02db		±0.01dB(<0.5H); ±0.02dB(<8H)		±0.02dB(<0.5H); ±0.03dB(<8H)	
	IL Repeatability*	±0.02dB					
	IL Accuracy*	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: +0.1dB 10~15dB: +0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB 10~15dB: ±0.5dB	0~1dB: ±0.02dB 1~10dB: ±0.1dB
RL section	RL Range	-30~-80dB	-15~-60dB	-30~-80dB	-15~-60dB	-30~-72dB	-15~-55dB
	RL Accuracy	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB	-30~-65dB: ±1.0dB -65~-70dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB
Others	Fiber length (Min)	DUTreflections (both ends)<-50dB: 0.7m; DUTreflections (both ends)>-50dB: 1.5m					
	Once Testing Time	<0.6s(Fast mode)					
	Display resolution	0.01dB					
Mainframe	Input power	AC90~ 260V/50HZ					
	Warming up time	30minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)					
	Working temperature	10°C~40°C					
	Storage temperature	-40°C~70°C					
	Size	ALPHA platform: 359mmx274mmx115mm, OMEGA platform: 462mmX374mmX171mm, Module: 285mmX133mmX71mm					

*Default test conditions for related parameters: Equipment warm-up time of 30 minutes; Ambient temperature of 23+/-1°C; FC/PC single-fiber patch cord. If multi-fiber cables are used for verification, an additional error variable of +/-0.03dB introduced by the optical switch must be accounted for in the parameters.

Detector Adaptors Selection Guide

Number	PN	Name	Description	Image
1	204810002	OPM FC adapter	Detection interface, suitable for FC connector	
2	204810003	OPM SC adapter	Detection interface, suitable for SC connector	
3	204810004	OPM LC adapter	Detection interface, suitable for LC connector	
4	204810007	OPM 2.5 ferrule adapter	Detection interface, suitable for FC/SC/ST ... connector and 2.5mm ferrule	

Number	PN	Name	Description	Image
5	204810006	OPM 1.25 ferrule adapter	Detection interface, suitable for LC/duplex LC /SN ... connector and 1.25mm ferrule	
6	204810014	OPM Integrating Sphere	Provide wide numerical aperture, can be used with MPO/ duplex LC adapters	
7	204810015	OPM MPO adapter	Detection interface, suitable for MPO12/MPO16connector	
8	204810016	OPM duplex LC adapter	Detection interface, suitable for LC/duplex LC connector	
9	204810017	OPM Bare- fiber adaptor	Detection interface, suitable for bare-fiber power test application	

Ordering Information

Based on the principle of optical time domain reflection(OTDR) detection, the return loss test is realized without winding. The integrated design test module can realize insertion loss and return loss testing simultaneously. Using high speed sampling circuit and algorithm optimization, the speed of dual wave ength test is less than 1s (Fast mode: 1310/1550 dual wavelength test speed 0.6S).

RLM [ ] [ ] [ ] [ ] [ ] [ ] — [ ] [ ] [ ]

Series	
/	Professional
-L	Liter
-HP	High Performance

Laser fiber type	
1	SM 9/125
2	SM 9/125& MM 50/125
5	MM 50/125

Detector type	
1	InGaAs 2mm PD
4	Standard Integrating Sphere
5	External Standard Integrating Sphere

Laser wavelength	
1	1310-SM
2	1550-SM
3	1490-SM
4	1625-SM
5	850-MM
6	1300-MM
7	1310+1550-SM

RL test	
A	Tangle-Free OTDR

Laser output port	
1	1CH
2	2CH

Laser connector type	
FA	FC/APC

Fiber Core Count	
01	Single-core or Dual-core; Compatible with the ALPHA chassis

Eg:
RLM1112A-1FA Tangle-Free Insertion and Return Loss Module, Wavelength 1310/1550, Single-Mode 9/125, InGaAs, 2mm Source Output Port, 1CH, Interface FC/APC.

Note: [1] The two digits represent two laser positions. Customers can select the laser wavelength from a predefined list or request a custom wavelength.
For RL implementation, Model A supports four different wavelengths. The digital coding facilitates the selection of red light and laser types, and the wavelengths are also available for customer customization.

JumperRun
Fiber Connector Tester system

All-in-one
fully measurement

DIMENSION is fully dedicated to the field of detection technology and strives to establish itself as a global leader in optical communication detection solutions. We take great pride in unveiling our state-of-the-art detection solution, the JumperRun Fiber Connector All-in-One Tester. This cutting-edge testing device represents a new generation of fiber connector production, designed to optimize costs and enhance efficiency. By streamlining the intricate process of traditional fiber connector testing, this tester simplifies production into a single four-in-one workstation. With just one station, it effortlessly measures insertion&returning losses and End-face visual indication &interferometry simultaneously, allowing for swift and effective analysis of fiber connectors. Moreover, it offers advanced features for generating comprehensive measurement reports and storing crucial data, ensuring seamless operations.

Key Features

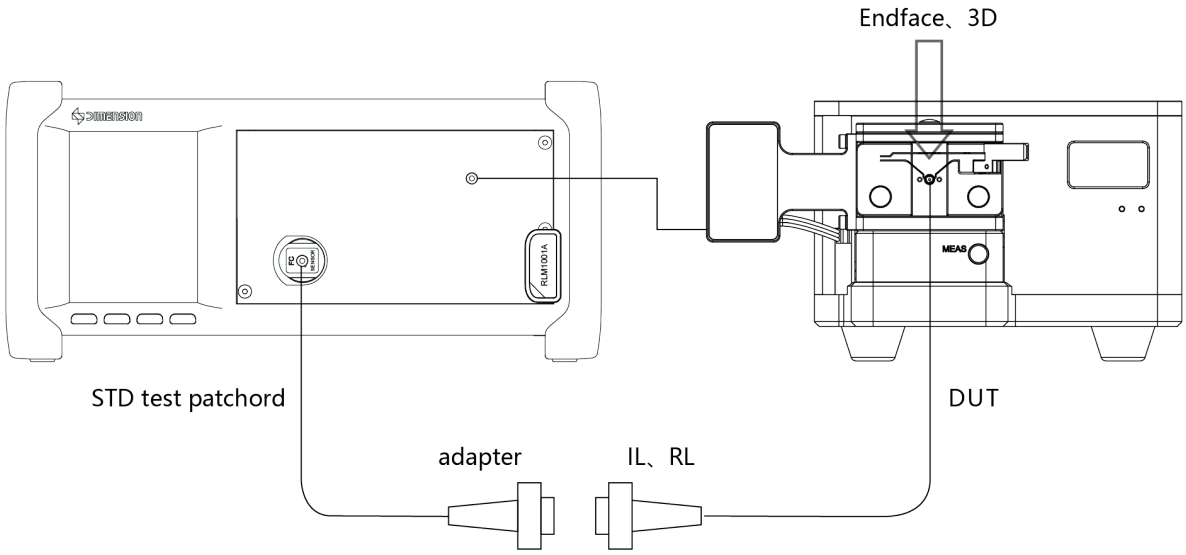
- All-in-one fully automated testing for IL, RL, 3D interferometry, and 2D End-face inspection
- Compatible with variety of connectors
- 400% efficiency increased with less working space and deployment resource
- Minimizes the needs of repeated insertions and removals while testing
- Flexibility to meet variety of demands.
- Exclusive combination with end-face cleaning solution
- Compatible with results storing and Data-base connectivity
- Integrates seamlessly with automation testing systems

Main Application

- Singplex fiber End-face 3D+2D visual inspection&losses measurements

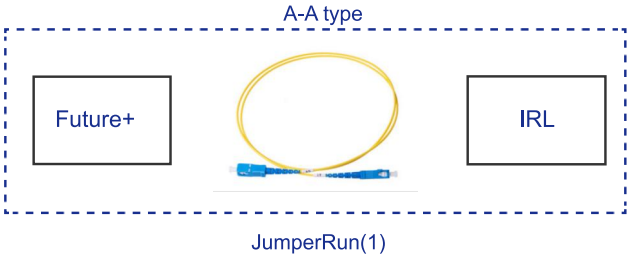
All-in-one fully automated measurement

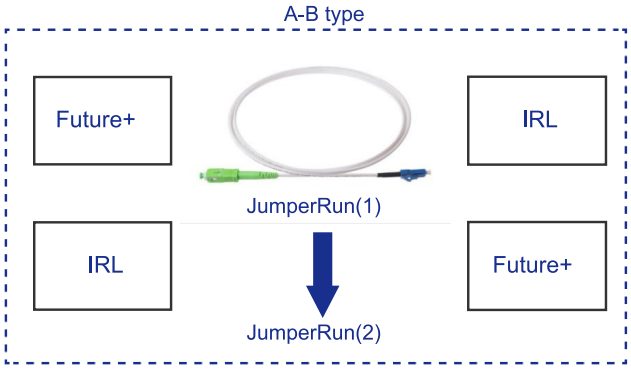
JumperRun empowers users with the ability to swiftly detect and automatically analyze end-face defects. Furthermore, it offers automated testing of end-face 3D interferometry as well as insertion loss and return loss. By combining these capabilities, JumperRun streamlines the testing process, making it faster, more convenient, and highly efficient.



Compatible with variety of connectors

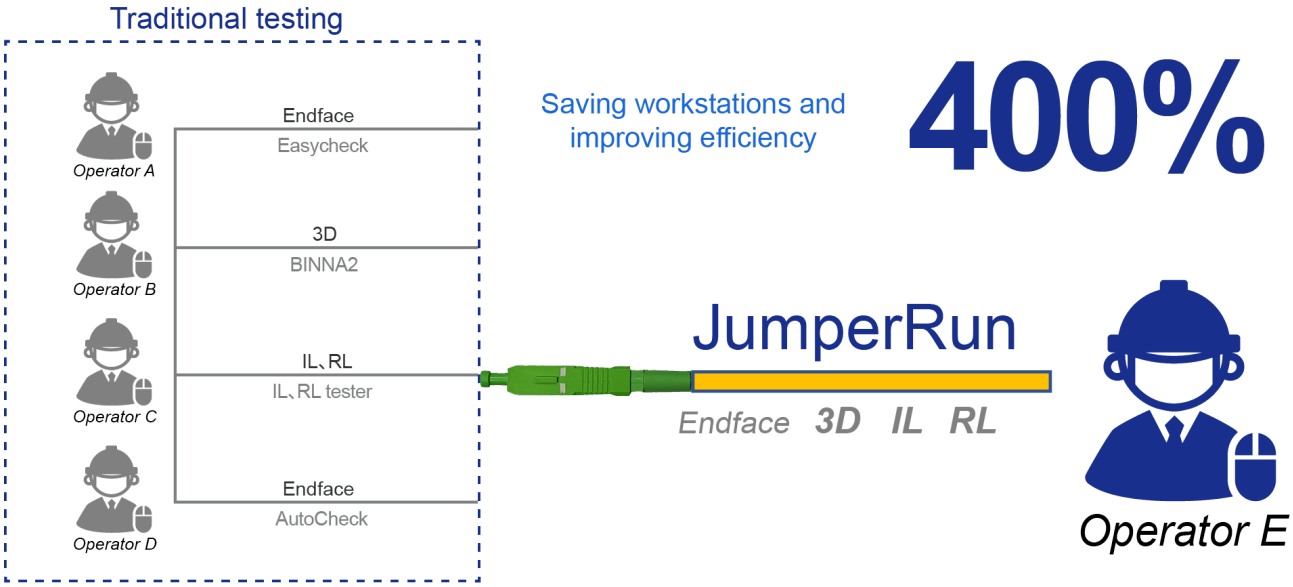
JumperRun is capable of supporting various types of single-core jumper testing, including A-A type and A-B type, enabling fast detection.





Higher efficiency with LESS space and deployment resources

The introduction of JumperRun has revolutionized traditional multi-station collaborative testing by simplifying the process. With JumperRun, a single station can effortlessly perform multiple test measurements, eliminating the need for complex setups. This streamlined approach significantly reduces the turnaround time between different stations, leading to a remarkable improvement in overall production efficiency.

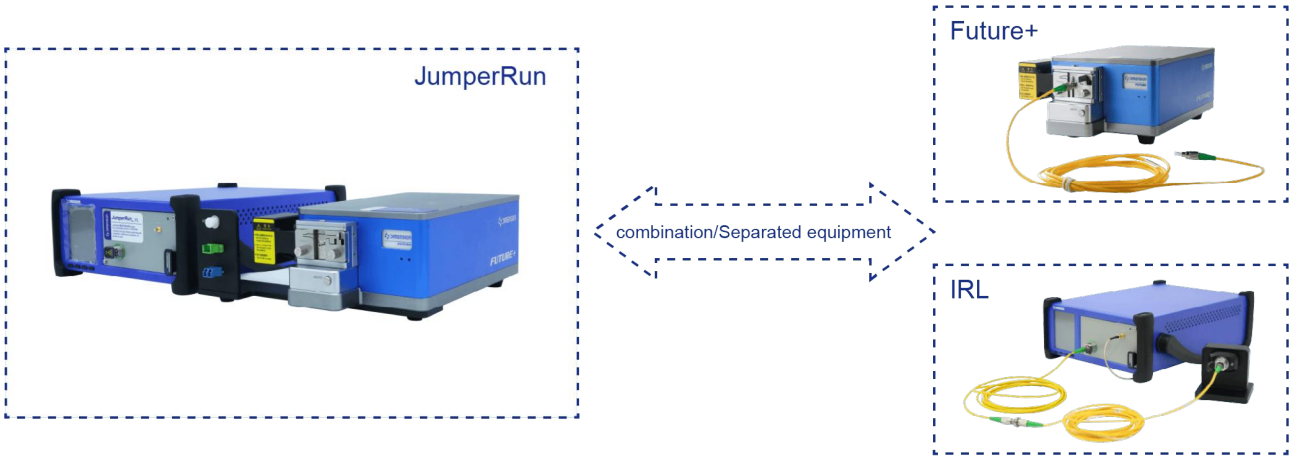


Well protect of the connectors wear

During the usage of JumperRun, the connector can be inserted once, and with a simple click, it performs simultaneous detection of end-face defects, analysis of 3D simulation, and measurement of insertion loss. This advanced capability effectively reduces the pollution and damage caused by multiple insertions and removals, as well as the frequency of cleaning. Additionally, JumperRun conveniently stores measurement reports for easy retrieval and record-keeping purposes. With JumperRun, testing becomes a streamlined and efficient process, enhancing workflow and improving overall productivity.

Flexibility to meet variety of demands

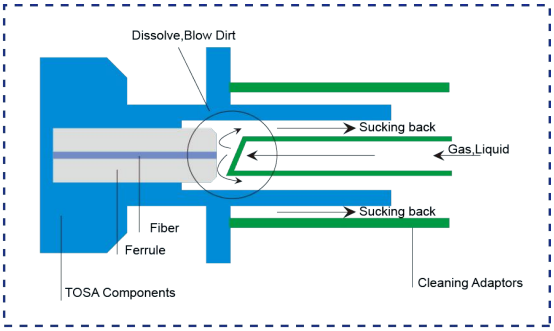
JumperRun offers an efficient testing solution for high-volume scenarios by integrating software. It also can be utilized as a standalone system as well, offering the flexibility to customize and cater to the requirements of small-batch, multi-category testing.



All-in-one cleaning and inspection solution

When paired with the OffsoonPro cleaning machine, JumperRun creates an advanced cleaning and inspection solution. By employing a non-contact cleaning method that combines liquid and gas, it significantly boosts efficiency in both cleaning and inspection processes. This innovative approach successfully eliminates the drawbacks of contact cleaning, such as high expenses and the risk of end-face scratches.

Non contact cleaning



Traditional cleaning

Supported Data transfer and storage

The JumperRun software provide the gate for data storage, both locally and in SQL Server databases, making data management a breeze.

Integrates seamlessly with automation testing systems

JumperRun harmoniously merges with an automation platform, culminating in a comprehensive system for the complete automation of cleaning and testing optical connectors. This advanced system encompasses a range of vital functionalities, including the detection of end-face defects, precise 3D interferometry, accurate measurement of insertion loss, and thorough evaluation of return loss. By leveraging the power of JumperRun, users can seamlessly execute a streamlined and efficient process to clean and test optical connectors, guaranteeing exceptional performance and unwavering reliability.

JumperRun Main Specifications

Parameter	Describe
Detection	Endface、3D、IL、RL
Resolution	0.29um
Defect detection	<1um
Test time	7s

JumperRun_IRL Main Specifications

When paired with the OffsoonPro cleaning machine, JumperRun creates an advanced cleaning and inspection solution. By employing a non-contact cleaning method that combines liquid and gas, it significantly boosts efficiency in both cleaning and inspection processes. This innovative approach successfully eliminates the drawbacks of contact cleaning, such as high expenses and the risk of end-face scratches.

Basic product model		IRL1112A-1FA	IRL5156A-1FP
light source	Fiber Type	SM 9/125	MM 50/125 or 62.5/125
	Wavelength	1310/1550nm	850/1300nm
	Source Type	Laser	Laser
	Encircled Flux Standard	NA	IEC-61280-4-1
IL section	IL Stability*	±0.02dB(<0.5H); ±0.03dB(<8H)	
	IL Repeatability*	±0.02dB	
	IL Accuracy*	0~1dB: ±0.02dB 1~5dB: +0.1dB 5~45dB: +0.2dB	0~1dB: ±0.02dB 1~5dB: ±0.1dB 5~25dB: ±0.5dB
RL section	RL Range	-30~-80dB	-15~-60dB
	RL Accuracy	-30~-70dB: ±1.0dB -70~-75dB: ±2.0dB	-15~-50dB: ±1.0dB -50~-55dB: ±2.0dB
Others	Fiber length (Min)	DUT reflections (both ends)>50dB: 0.6m; DUT reflections (both ends)<50dB: 1.5m	
	Testing Time (s)	Fast mode: 0.8S; Normal mode: 1.4S	
	Display resolution	0.01dB	
Mainframe	Input power	AC90~ 260V/50HZ	
	Warming up time	30minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)	
	Recalibration period	2 years	
	Working temperature	10°C~40°C	
	Storage temperature	-40°C~70°C	
	Size	ALPHA platform: 359mmx274mmx115mm, OMEGA platform: 462mmX374mmX171mm, Module: 285mmX133mmX71mm	

FUTURE+Main Specifications

Ltem	Range	Repeatability	Reproducibility
ROC(mm)	3~Flat	±0.3%	±0.5%
Apex Offset(um)	0~250	±0.5	±1.5
Fiber Height (nm)	-1000~1000	±1	±2
APC Angle (°)	0~12	±0.01	± 0.015
Measure Speed (Do not contain focus)		Endface	1s
		Interferometry	1.5s
		Both	2s
Endface Resolution		0.29um	
Data Link		USB3.0	
Power Supply		DC24V	
Size(HXWXD)		283mmX150mmX108mm	

* Sigma Values

Ordering Information

IRL

Laser fiber type	
1	SMF-28e 9/125
5	MM 50/125
6	MM 62.5/125

Detector type	
1	InGaAs 3mm

Laser wavelength	
0	No laser
1	1310
2	1550
3	1490
4	1625
5	850
6	1300
X	Customized

RL test	
A	Mandrel-free
B	Mandrel

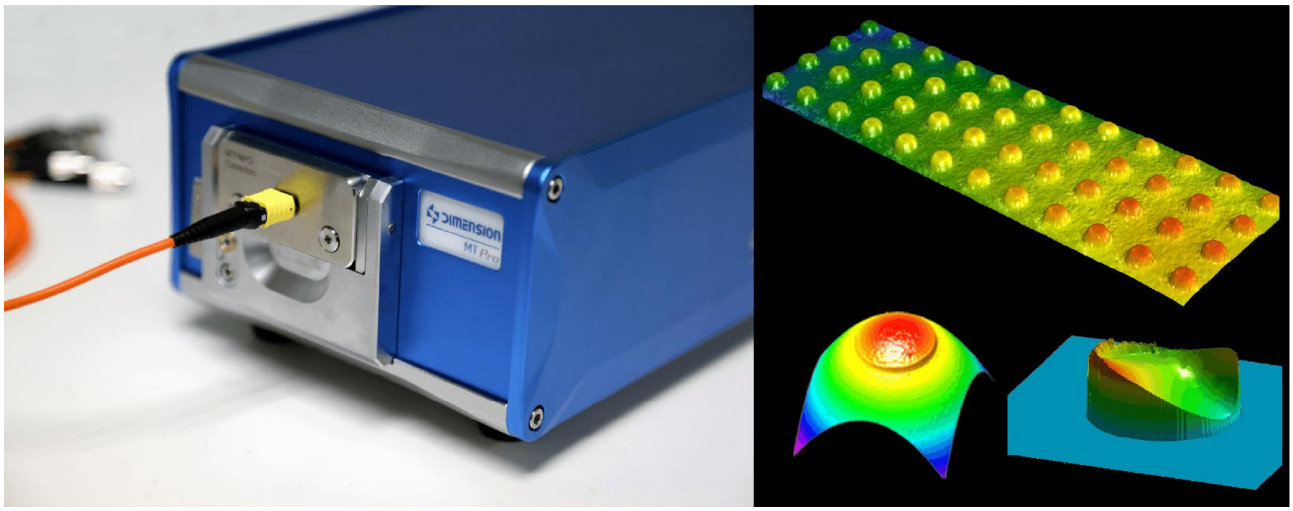
Laser output port	
1	1CH
2	2CH

Laser connector type	
FA	FC/APC (SM)
FP	FC/PC (MM)

Eg: RLM1112A-1FA Mandrel-free IRL test module, 1310/1550, SM 9/125, InGaAs 2mm, Laser output 1CH FC/APC

Note: RL implementation method A model supports dual laser wavelengths, with two digit codes representing two laser wavelengths. Customers can choose the laser wavelength from the list or customize the laser wavelength.

MT Pro Single/Multi – Channel Integrated Interferometer



Dimension Technology releases MT Pro, a new Single/Multi Channel Integrated Interferometer. MT Pro is the upgraded MPO interferometer with image resolution up to 1.5um. Equipped with functions like auto focus, PASS/FAIL analysis and auto calibration on reference mirror, MT Pro has optimized repeat-ability. The testing time is 0.5 second for single fibre measurement and 5 second for MT12 measurement. With field of view as 4.3mm*3.3mm, MT Pro is capable for MT16 and up to MT72 measurement. In the special designed fixture platform, 0° and 8° fixtures can be quickly switched without extra tools or fixtures needed. MT Pro is calibrated with 0.1nm laser interferometer and the high accuracy of measurement is committed. The ferrule to be tested is mounted with frame. Modularized software interface makes the measurement intuitive and user-friendly.

Main Features

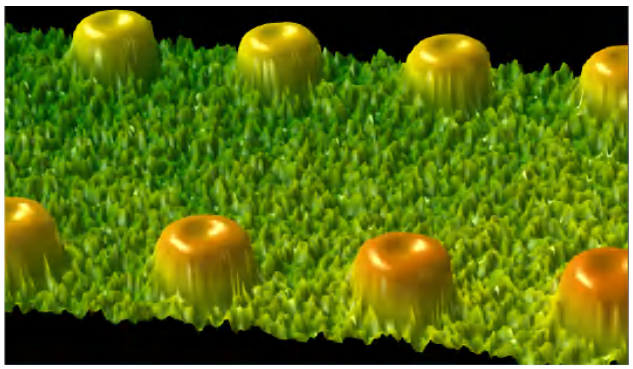
- Up to 1.5um image resolution
- Quick measurement, 0.5s for Single fibre or 5s for 12 core MT
- High repeat-ability
- High accuracy, calibrated with 0.1nm laser interferometer
- Ferrule frame mounting
- Compatible with single to 72 fibre measurement
- FOV 4.3*3.3mm, capable for 16 core MT

Applications

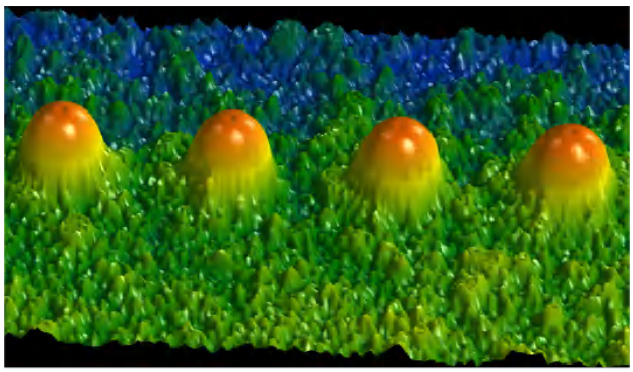
- Used for testing optical fiber devices during polishing and assembly.

All-in-one fully automated measurement

MT Pro uses an upgraded optical system to accurately restore the details on the MPO facets and profile. The accurate raw data ensures the trust-able 3D testing results.



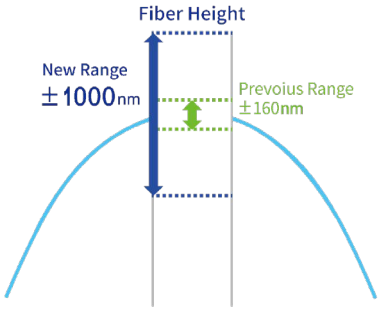
Facets of Multi Channel MM Fiber



Facets of Multi Channel SM Fiber

-1000nm~1000 nm Fiber Height

The new optical and mechanical design extend the fiber height range to -1000 ~+1000nm, in all testing conditions.



High repeat-ability

10 continuous testing results without plug-in and plug-out.

Repeat-ability of Fibre Height, 12 core MPO

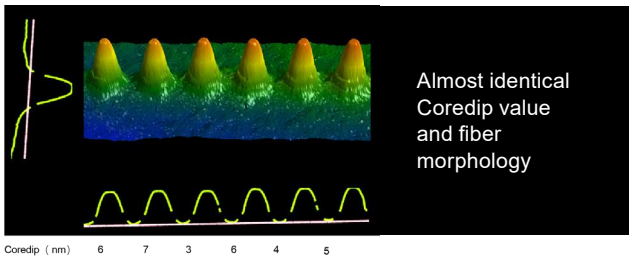
MT Pro	Fiberheight											
ID	Fiber1	Fiber2	Fiber3	Fiber4	Fiber5	Fiber6	Fiber7	Fiber8	Fiber9	Fiber10	Fiber11	Fiber12
Unit	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)
Min	1393	1476	1523	1487	1486	1475	1466	1473	1451	1442	1452	1479
Max	1412	1492	1540	1499	1501	1490	1482	1488	1465	1456	1466	1489
MMD	19	16	17	12	15	15	16	15	14	14	14	10
Mean	1400.1	1482.2	1530.6	1492.3	1492.9	1481.5	1471.5	1479	1455.5	1446.7	1456.8	1482.5
1	1401	1482	1531	1492	1493	1481	1471	1479	1455	1447	1456	1482
2	1395	1478	1526	1487	1488	1475	1467	1474	1451	1442	1452	1479
3	1395	1479	1526	1488	1488	1479	1467	1476	1453	1445	1455	1481
4	1403	1485	1534	1497	1497	1487	1476	1485	1461	1452	1462	1489
5	1406	1488	1538	1499	1501	1490	1482	1488	1465	1456	1466	1489
6	1398	1479	1529	1489	1491	1479	1469	1477	1453	1444	1454	1480
7	1395	1478	1526	1491	1490	1480	1470	1477	1454	1445	1456	1481
8	1393	1476	1523	1488	1486	1476	1466	1473	1452	1443	1454	1480
9	1412	1492	1540	1497	1499	1484	1472	1478	1452	1443	1452	1479
10	1403	1485	1533	1495	1496	1484	1475	1483	1459	1450	1461	1485

Repeat-ability of Fibre Core Dip, 12 core MPO

MT Pro	CoreDip											
ID	Fiber1	Fiber2	Fiber3	Fiber4	Fiber5	Fiber6	Fiber7	Fiber8	Fiber9	Fiber10	Fiber11	Fiber12
Unit	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)
Min	41.00	53.00	51.00	39.00	53.00	37.00	48.00	45.00	35.00	43.00	41.00	53.00
Max	48.00	61.00	61.00	56.00	68.00	54.00	59.00	59.00	47.00	50.00	51.00	59.00
MMD	7.00	8.00	10.00	17.00	15.00	17.00	11.00	14.00	12.00	7.00	10.00	6.00
Mean	45.90	57.40	57.00	49.50	60.00	46.60	54.90	51.90	39.20	47.40	45.50	56.50
1	48	61	57	54	60	47	59	53	37	49	51	58
2	45	53	54	56	53	53	56	51	40	49	44	55
3	48	58	60	48	68	45	55	54	39	50	45	57
4	47	59	57	49	61	45	58	53	40	49	46	56
5	41	56	51	48	56	37	53	45	38	43	41	55
6	46	57	58	56	59	48	57	50	38	46	45	58
7	48	60	59	43	66	50	52	57	38	48	46	56
8	44	53	61	46	60	54	48	59	40	48	47	59
9	46	61	56	56	58	48	57	49	47	47	46	58
10	46	56	57	39	59	39	54	48	35	45	44	53

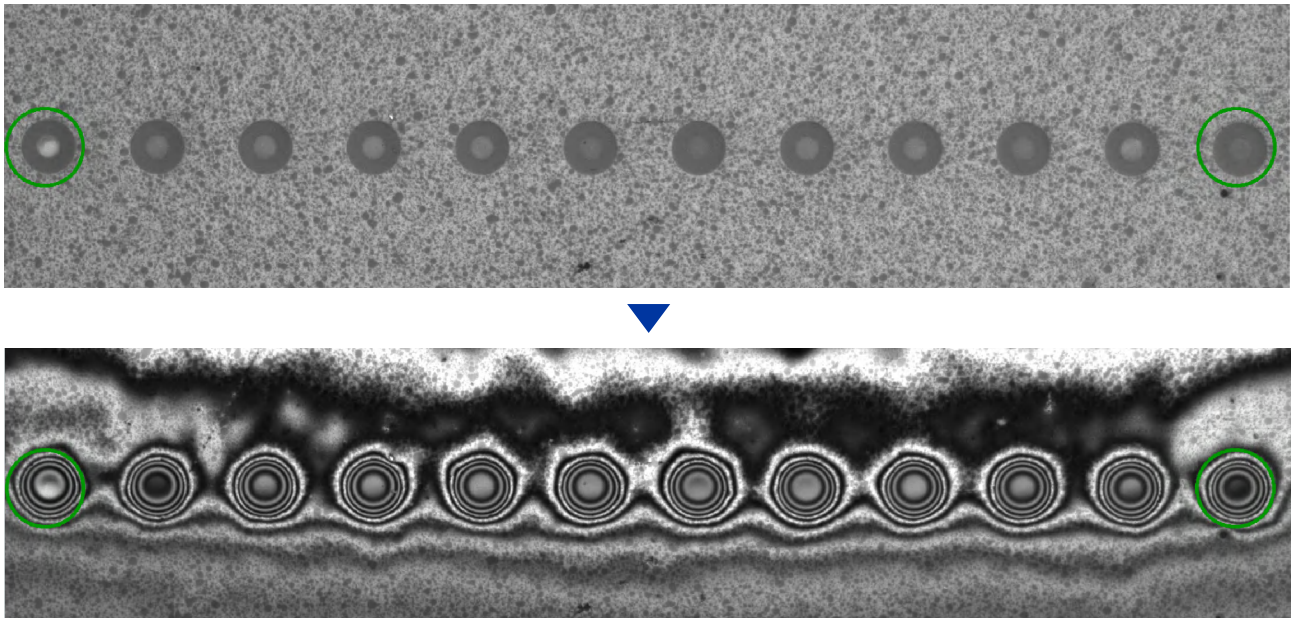
High repeat-ability

Each MT Pro system is calibrated with 0.1nm laser interferometer. The accuracy and consistency are committed for the key parameters for MT/MPO measurement, including ROC, Fiber height and Core dip.



Auto Focus

MT Pro can be configured to start a measurement from Auto Focus function. The Auto Focus function can eliminate the difference on each Fiber channels. Further more, with Auto Focus function, the measurement procedure is significantly simplified, especially for APC connectors.



High Repeat-ability

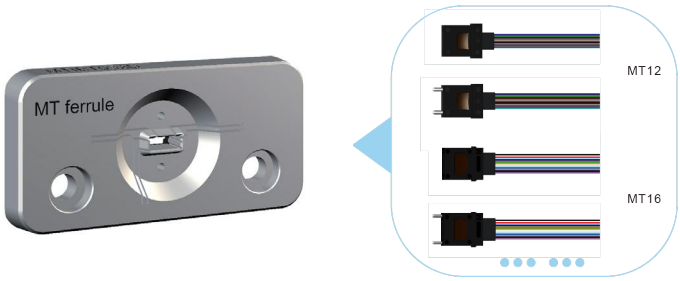
MT Pro applies reference mirror to calibrate the instrument automatically and maintains the peak performance at all conditions. Compared with manual tuning stage and data compensation, the auto calibration is quick and accurate.

Fast and accurate calibration

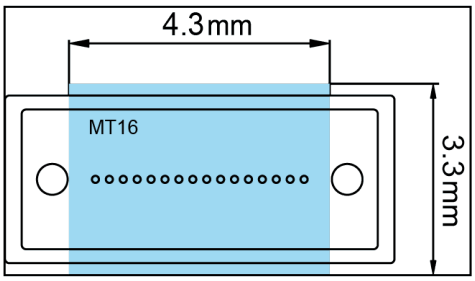
Unique frame mounting fixture for MT ferrule

Dimension uses its patented frame mounting fixture to hold the MT ferrules to be tested.

1. The frame mounting fixture for MT ferrule is compatible with MT4, MT8, MT12, MT16, MT24, MT32, MT48 and MT72. Only one fixture is needed to test all MT ferrules.
2. Committed accuracy and repeat-ability for Ferrule angle measurement .
3. Endurable and long life time fixture.
4. Safe to PIN hole of DUT.
5. Helpful to analyze the accuracy of polishing jig.



Frame Mounting



Wide enough FOV of MT16 measurement

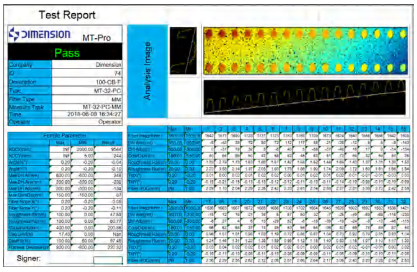
Quick switch between 0° and 8° fixtures

Quick switch between PC and APC

With the special designed fixture platform, 0° and 8° fixtures can be switched quickly. No extra calibration is needed. The high repeat-ability and reproducibility are guaranteed. The fixture platform is compatible for all types of MT/MPO PC and APC products.

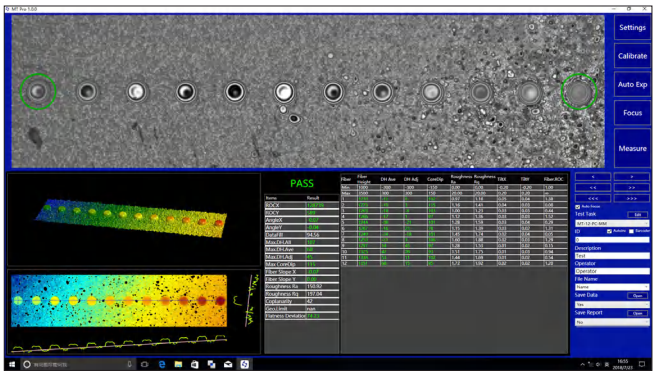
One click operation

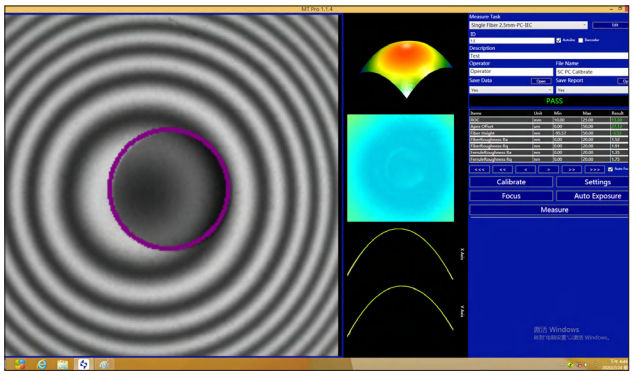
Only one clicking is needed to complete the whole measurement procedures, including auto focus, scanning, analysis and all calculations. The testing report will be ready in seconds.



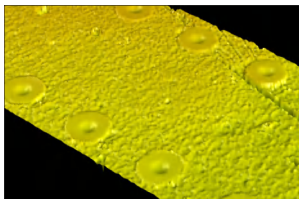
Intuitive software interface and excellent 3D rebuilding

MT Pro applies intuitive and modularized software interface. The real time image, 3D profile, cross section, roughness and testing results are displayed in the user interface. The operation and configuration are convenient and user-friendly.

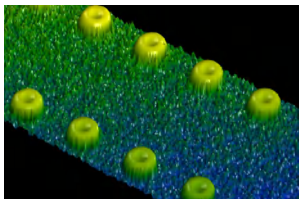




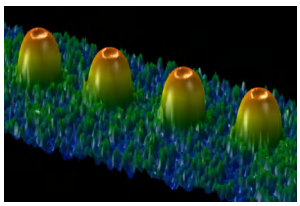
The details of the 3D profile visualize the polishing result and helps to analyze and improve the polishing process.



Endface polishing and damage



Large Core dip



Slight Core dip

Core dip in SM

Quick measurement

The MT Pro hardware and software design improves the speed for MPO measurement. It takes only 0.5 second for single fibre measurement or 5 second for 12 core MPO measurement.

Various Fixtures

MT ferrule(Frame mounting)

MTP-16 Connector

MT ferrule X16(PINpositioning)

MT ferrule X12(PINpositioning)

MTP/MPO Connector

LC

SC

Specifications

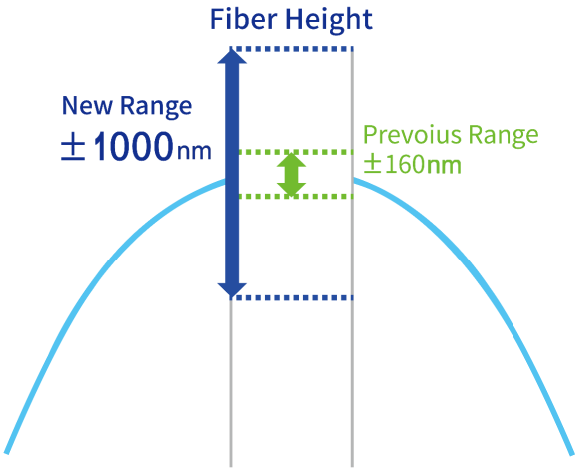
Ltem		Range	Repeatability	Reproducibility
MT Mode	X/Y ROC*(mm)	3~Flat	0.3%	0.5%
	X/Y Angle* (°)	0(PC) or 8(APC)	±0.01	±0.02
	Fiber Height* (um)	-2 ~ +8	±0.015	±0.025
	CoreDip*(um)	-1~+1	±0.01	± 0.015
Single Mode	ROC*(mm)	3~∞	±0.1%	±0.2%
	Fiber height*(nm)	-1000~+1000	±1	±2
	Apex Offset*(um)	0~200	±0.5	±1.5
	APC Angle*(°)	0 or 8	±0.01	±0.015
MPO Testing time(s)		5s (MT12)		
Single Fiber Testing Time(s)		0.5 s		
Compatible Devices		MTP/MPO PC (Without PIN & With PIN)		
		MTP/MPO APC (Without PIN & With PIN)		
		MT Ferrule PC (Without PIN & With PIN)		
		MT Ferrule APC (Without PIN & With PIN)		
		Single Fiber(FC、SC、ST、LC、MU、E2000PC&APC)		
Image Resolution		1.5um		
Light Source		White Light +Dual monochromatic light source		
Power Supply		DC 24V		
Weight		5.2kg(mainbody)		
Size		264mmx157mmx107mm		

Remark:Repeatability and Reproducibility are sigma values.

Repeatability,measure 10 times without moving connectors.

Reproducibility,measure 10 times with pull and plug.

FUTURE Automatic 5D Fiber Endface Interferometer



FUTURE is the brand new Automatic Fiber End-face Interferometer developed by Dimension Technology, based on our know-how and experience on the fiber inspection instrument.FUTURE provides the comprehensive fiber end-face measurement functions, including 3D profile, auto focusing, auto calibration, auto APC angle tuning and auto end-face judgment. All testing and reporting can be finished in 1.5 second. New engineering on the structure design guarantees the anti-shocking capability and ultra long life of the fixture. FUTURE is the best choice in the market.

Main Features

- Capable for both 3D profile and visual inspection
- Auto focus and Auto calibration
- 0~12ºAPC angle auto tuning
- Self-adapted locking fixture
- Quick measurement
- Reliable data transmission

Applications

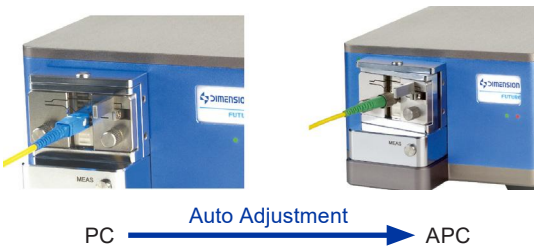
- Used for testing optical fiber devices during polishing and assembly.

-1000nm~1000 nm Fiber Height

The new optical and mechanical design extend the fiber height range to -1000 ~+1000nm, in all testing conditions.

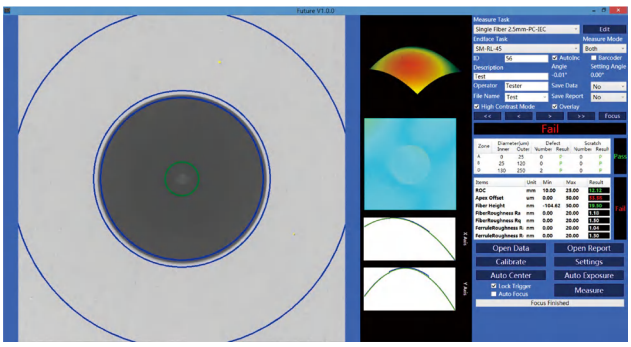
0~12° APC Angle Auto Tuning

The new optical and mechanical design extend the fiber height range to -1000 ~+1000nm, in all testing conditions.



Self-adapted Locking Strength

With the special designed self-adapted locking fixture, the strength to lock the ferrule is consistent. The fixture abrasion is limited and the life cycle of fixture is longer than ever before.



Reliable Data Transmission

USB 3.0 connection and new hardware design ensure the high speed and reliable data transmission for FUTURE interferometer, even in the complicated field environment. Individual interference testing can be completed in 0.5 second.

Synchronize 3D Profile Measurement and Visual Inspection

The elaborate designed structure enables FUTURE to complete 3D profile and visual inspection at the same moment. The functions like auto focusing, auto trigger and auto calibration simplify the operation of interferometer than ever before. Just lock the connector, FUTURE will complete the rest.

Auto Focusing

FUTURE can focus automatically and quickly. In Auto Focus mode, the high accuracy is guaranteed. To be more user-friendly and ensure the flexibility to various users, manual focusing is also designed as an option. The user can tune and fine tune the focus for special applications.

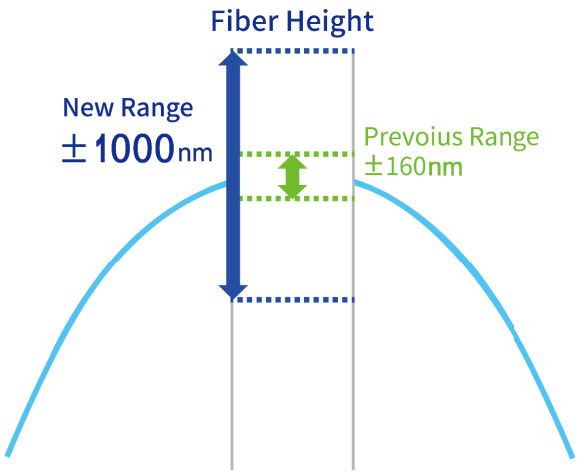
Auto Calibration

The calibration for FUTURE is fully automatic. After each calibration, FUTURE will compensate on the software and hardware setting automatically.

Specifications

Ltem	Range	Repeatability	Reproducibility
ROC(mm)	3~Flat	±0.3%	±0.5%
Apex Offset(um)	0~250	±0.5	±1.5
Fiber Height (nm)	-1000~1000	±1	±2
APC Angle (°)	0~12	±0.01	± 0.015
Measure Speed (Do not contain focus)		Endface	1s
		Interferometry	1.5s
		Both	2s
Endface Resolution		0.29um	
Data Link		USB3.0	
Power Supply		DC24V	
Size(HXWXD)		283mmX150mmX108mm	

BINNA2 Fiber EndFace Interferometer



BINNA2 is the latest intelligent interferometer from Dimension Technology. Based on Dimension's success SANA2 series, new equipped Auto Focus and Auto Calibration functions make BINNA2 more powerful than ever before. The optimized new software greatly improves the testing accuracy and speed. It takes only 0.5 seconds to complete the whole testing. The new fixture platform and structure design enhance the capacity on vibration resistance, as well as the life time and the stability.

Main Features

- -1000nm~1000 nm Fiber Height
- Auto Focus & Auto Calibration
- Only 0.5 s to complete the testing
- Excellent to rebuild 3D profile
- Measure cleave angle of bare fiber
- Stable data transmission
- Excellent resistance on vibration

Applications

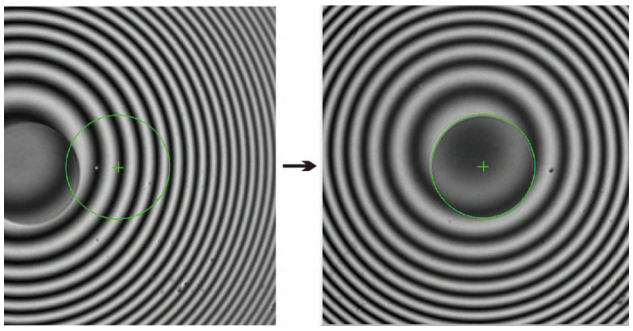
- Used for testing optical fiber devices during polishing and assembly.

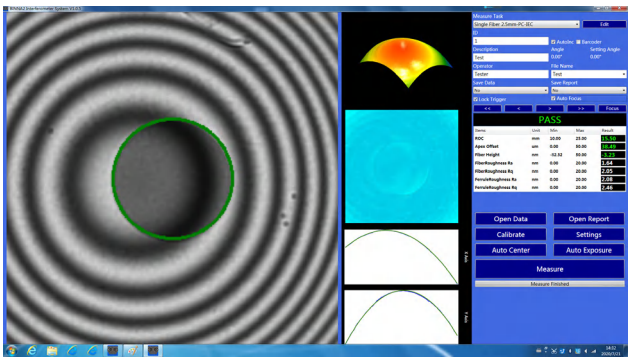
-1000nm~1000 nm Fiber Height

The new optical and mechanical design extend the fiber height range to -1000 ~+1000nm, in all testing conditions.

Auto Centering Images

BINNA 2 has auto centering image function that can find the fiber and makes it to center automatically within one click.No mouse drag or hardware adjustment is needed.





One Click Measurement

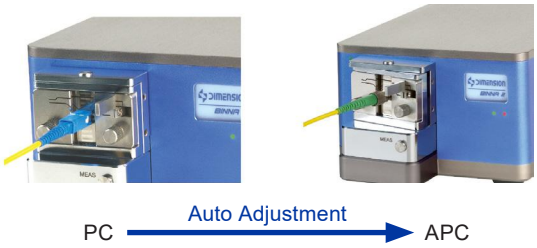
Beside of Clicking the MEASURE button, operator can press the button next to fixture to start the measurement. BINNA2 can also be configured to start the process automatically, after the fixture is detected to be locked.

Auto Focus & Auto Calibration

Applying the latest Dimension hardware and software, BINNA 2 can perform the focus and calibration automatically. No human interactive is needed in the whole measurement process.

Only 0.5s to Complete the Testing

The excellent software and hardware greatly improve the testing speed for BINNA2. It takes only 0.5s to complete the testing for single Fiber connector.



Angle Measurement of Bare Fiber Cutting

Dimensional technology integrates a variety of product measurement functions in BINNA2 based on customer requirements. BINNA2 can test the cutting angle of the optical fiber.

Concentricity Tester-Fiber Stub

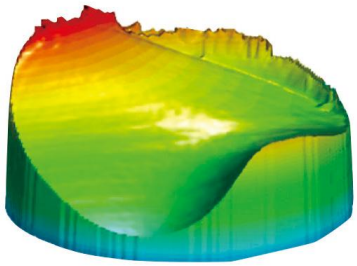
The accuracy of APC angle control is 0.003° . The angle tuning is automatic with preset range from 0~12° .

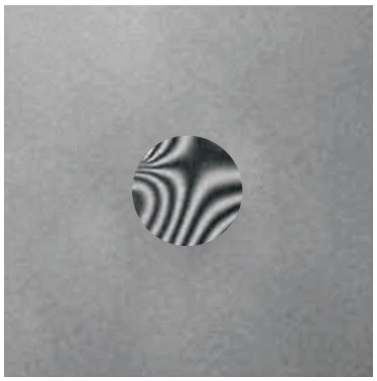
Self-adapted Locking Strength

With the special designed self-adapted locking fixture, the strength to lock the ferrule is consistent. The fixture abrasion is limited and the life cycle of fixture is longer than ever before.

Stable data connection and excellent anti-vibration

BINNA2 continue to use USB3.0 cable as other Dimension interferometers did, to ensure stable and high speed data transmission at any conditions. The unique hardware design helps to maintain the stable and accurate testing result even at factory field with a lot of vibration.



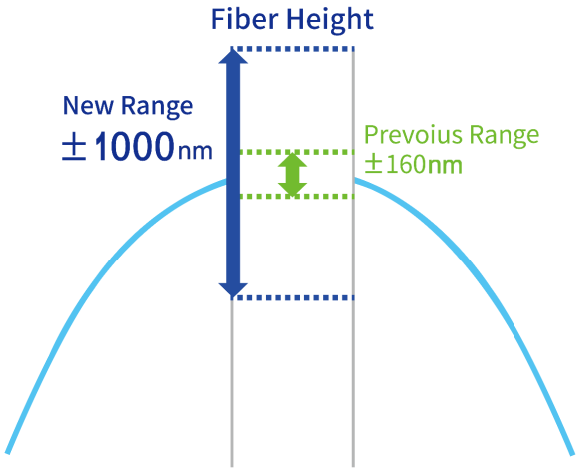


Specifications

Ltem	Range	Repeatability	Reproducibility
ROC(mm)	3~Flat	±0.3%	±0.5%
Apex Offset(um)	0~250	±0.5	±1.5
Fiber Height (nm)	-1000~1000	±1	±2
APC Angle (°)	0~12	±0.01	± 0.015
Endface Resolution		0.29um	
Data Link		USB3.0	
Power Supply		DC24V	
Size(HXWXD)		283mmX150mmX108mm	

Repeatability values are calculated 50 continuous measurements without insertion and rotation of the connector between measurements.
Stability values are calculated from 50 times continuous measurements with insert and pull from fixtures between measurements.

SANA2 Fiber Endface Interferometer



SANA2 is the brand new Manual Focus Fiber End-face Interferometer, inheriting Dimension Technology's know-how and experiences on Interferometer design. Based on classic SANA series, SANA2 is the first model to integrate auto APC angle tuning, auto measurement and auto reporting functions. The new software design significantly improves the accuracy. The whole testing can be completed in 0.5 second. The brand new structure design ensures the anti-shock capability, as well as the ultra long fixture life time and testing stability.

Main Features

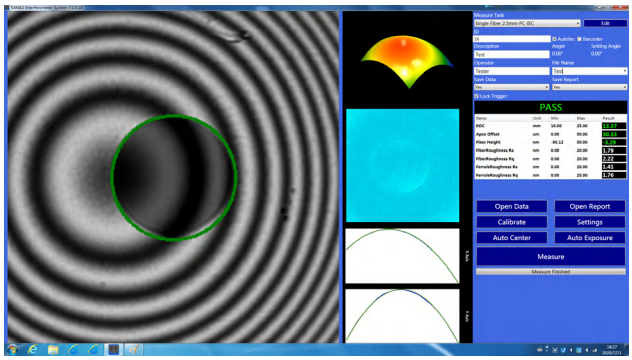
- Fiber End-face Interferometer
- Automatic Measurement;
- 0~12° APC Angle Auto Tuning;
- Auto Centering Images;
- Cleave Angle Measurement;

Applications

- Used for testing optical fiber devices during polishing and assembly.

Automatic Measurement

SANA2 is equipped with the locking handle sensing unit to monitor the device locking status. To further simplify the testing process, the instrument can start the measurement once the device to be tested is fully locked. Operator can also click the button aside the locking handle to trigger the measurement.

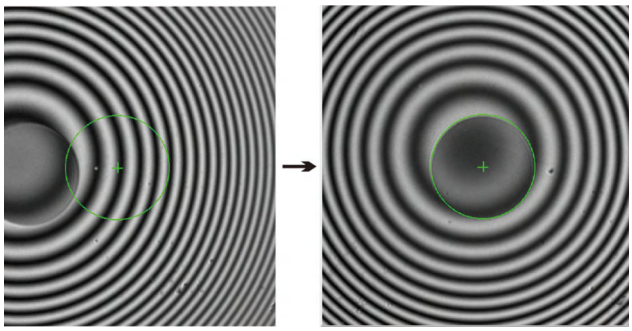


-1000nm~1000 nm Fiber Height

The new optical and mechanical design extend the fiber height range to -1000 ~+1000nm, in all testing conditions.

Auto Centering Images

SANA 2 has auto centering image function that can find the fiber and makes it to center automatically within one click. No mouse drag or hardware adjustment is needed.



0~12° APC Angle Auto Tuning

Benefit with the unique fixture design, SANA2 can tune the APC angle precisely from 0°to 12°automatically, meeting any special requirement on APC angle setting.

Simple and User Friendly Interfaces and Excellent 3D Images

The software of SANA 2 is simple and user friendly, you can change the language within the software. It provide many endface rebuild method such as 3D, 2D, plot to assist the engineers about the process. The test reports and data are generated automatically for analyzing and tracing.

Cleave Angle Measurement

SANA 2 is able to test cleave angle and many other products.

Specifications

Ltem	Range	Repeatability	Reproducibility
ROC(mm)	1~Flat	±0.1%	±0.2%
Apex Offset(um)	0~250	±0.5	±1.5
Fiber Height (nm)	-1000~1000	±1	±2
APC Angle (°)	0~12	±0.01	± 0.015
Testing Speed(S)	0.5s		
Weight	5.5kg		
Power	DC24V		
Size(HXWXD)	283mmX150mmX108mm		

* Sigma Values

SANA MINI Fiber Endface Interferometer

SANA mini is a portable, non contact fiber endface interferometer developed by dimension for single fiber connector. The interferometer has a very high performance while the size of the instrument is incredible small. SANA mini need only a USB link to work without any external power supplies. It can test the geometry parameters of single fiber connectors such as radius of curvature, apex offset and fiber height. The data and report are generated in excel format and very helpful in management and analysis. SANA mini is a suitable interferometer for field usage.

Main Features

- Portable fiber endface interferometer
- 1 USB needed to provide data link and power supply
- Auto centering fiber
- 2s need for single measurement
- Bare fiber and bare ferrule measurement Easy PC /APC changing Series of fixtures

Applications

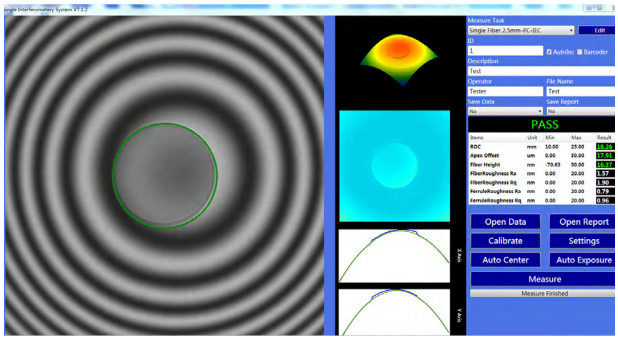
- Used for testing optical fiber devices during polishing and assembly.

Light Weight and Portable Size

Portable Size : L12XW5.3XH8(cm) .Weight: 0.8kg.Elegant Design. USB Connection Only, No Additional Power needed.

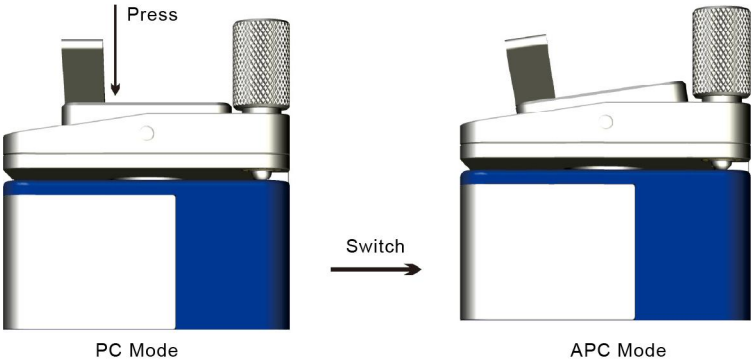
User Friendly Interface and Excellent 3D Image

SANA mini fiber endface interferometer has a software that is easy to operate and user friendly. It can change the language just in the software and has real 3D rebuilding functions. User can analyze the situation of the endface by 3D images. The plot picture and roughness picture are also provided to assist the engineers to adjust the process.The test report and data of the test are also generated automatically for analysis and tracing.



Easy to Operate

The focus handle and product is at the same side and very easy to operate.SANA MINI has the same interface as SANA.No need to change operation habit.
SANA MINI needs only a press to change between PC&APC measurement.



Unique Fixtures

Universal 2.5mm fixture and universal 1.25mm are included; 2.5mm fixture is able to test FC/PC、SC/PC、ST/PC、E2000/PC、DIN、FC/APC、SC/APC; 1.25mm fixture is able to test LC/PC、MU/PC、LC/APC; Changing between PC and APC is very easy.

Strong Testing Ability

Based on the hardware and software platform, SANA MINI can accurately measure and re-build the 3D profile of Fiber connectors. SANA MINI is certified by Telcordia for the accurate and reliable geometric measurement.

Specifications

Ltem	Range	Repeatability	Reproducibility
ROC(mm)	1~Flat	±0.1%	0.2%
Fiber Height (nm)	-160~+160	±1	±2
Apex Offset(um)	0~200	±0.5	±1.5
APC Angle (°)	0(PC) or 8(APC)	0.02	0.03
Testing Speed(S)	1.5s		
Light Source	RED LED		
Weight	0.8kg		
Size(HXWXD)	120mmX53mmX80mm		

* Sigma Values

Offsoon Pro Fiber Endface Cleaning Machine

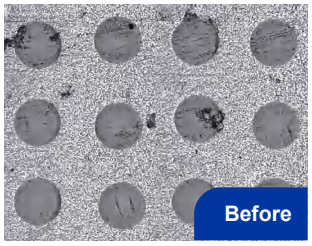
Offsoon Pro-L is the automated single and multi-fiber endfaces cleaning machine newly launched by Dimension. On the basis of retaining the original advantages, its built-in gas circuit and liquid circuit have been upgraded and a visual display screen and settable buttons have been added, which has better cleaning effect, reliability and ease of use. By configuring a variety of precision cleaning interfaces, It can efficiently clean the endfaces of fiber connectors, optical components, optical modules, and MT ferrules etc. It can also be applied to a fully automated cleaning and inspection system for optical devices.

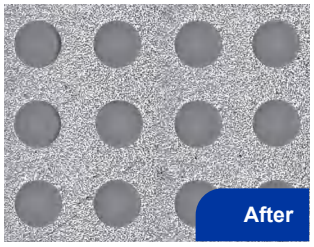
Main Features

- Over 98% High Cleaning efficiency
- Non-contact to protect fiber endface
- Built-in High-precision filtering system
- Equipping display and keyboard on the surface
- Time editable for solvent spraying, gas jetting, and sucking back
- Support Single/Multi-fiber endfaces cleaning
- Support fully automated cleaning and inspection system

Non-contact, Over 98% High Cleaning efficiency

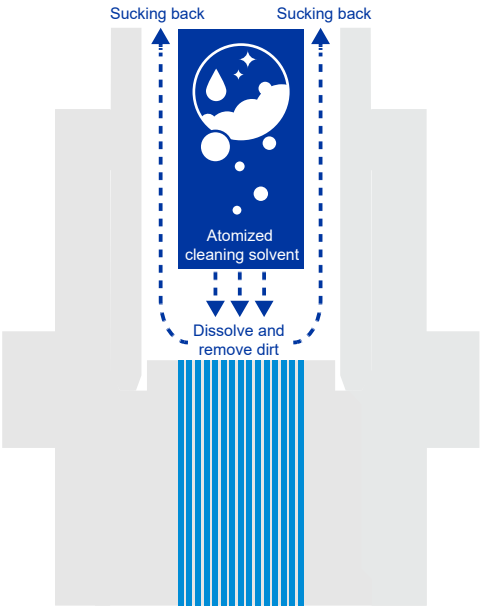
Offsoon Pro uses a precise non-contact gas-solvent-gas sequence to blast and remove contamination particle with Over 98% High Cleaning efficiency, and the entire cleaning process is only 2 seconds.





Applications

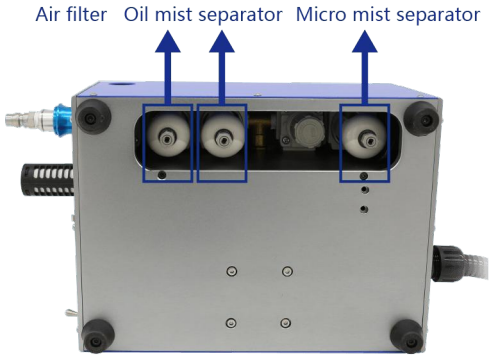
- Used for testing optical fiber devices during polishing and assembly.



Cleaning Schematic

Built-in high-precision filter system

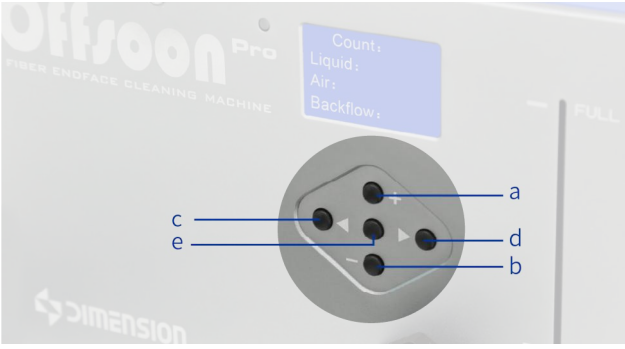
The Offsoon Pro Fiber Endface Cleaning Machine is equipped with a high-precision air filter, oil mistseparator, and micro-mist separator to ensure a contamination-free cleaning process. All filtrationcomponents are positioned at the bottom of the device for easy replacement and maintenance.



Bottom view

Equipped with a display and setting buttons

The Offsoon Pro features a display that intuitively displays cleaning statistics and the duration of spray, air, and back-sucking cycles. Default parameters for common cleaning types are built-in for efficient operation. Program settings can be edited and saved, allowing users to easily save programs as needed. Convenient button operation allows users to select cleaning programs or set spray, air, and back-sucking times as needed.



Key combination instructions:
Press“OK”&“—” and hold for 1 second:
reset the count of cleanings to zero
Press“OK”&“+” and hold for 1 second:
enter the editable state

a. Plus key: Increases value
b. Minus key: Decreases value
c. Left key: Moves cursor left
d. Right key: Moves cursor right
e. Confirm key: The cursor flashes when editing is enabled. Press Confirm key to exit editing after setting parameters.

Comfortable handle, easy to operate

The Ergonomic designed handle reduces fatigue of the operators and increases efficiency. The handle is compatible with the cleaning interfaces of Offsoon MARK III, Offsoon MARK IV, Offsoon MARK MT etc., and the interfaces are easy to be installed and replaced. An independent cleaning cotton rod handle can be installed behind it.

Safe and Humanized Design

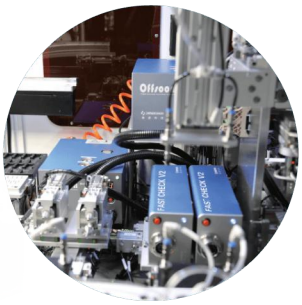
Offsoon Pro's solvent refill is very easy and convenient. It will not scratch the end face because the cleaning method is non-contact, the waste cleaning solvent and gas are aspirated back to the machine, which will not harm the operators.

Support Single/Multi-fiber endfaces cleaning

Offsoon Pro is equipped with a variety of cleaning interfaces which also can be customized, which can efficiently clean the endfaces of fiber connectors, optical components, optical modules, and MT ferrules etc.

Support fully automated production line

Offsoon Pro has I/O and RS232 interfaces, and can be combined with an automated loading/unloading system and Dimension's Fully Automatic Fiber Endface Inspector FastCheckPro to form a fully automated cleaning and inspection system, which can effectively improve the production and inspection efficiency of optical devices.



Specifications

Item	Parameter
Gas Resource	Dry and Clean N_2, CO_2, or air
Gas Pressure	0.5Mpa—1.0Mpa
Power Consumption	15W
Operating temperature	+5°C~+35°C
Storage temperature	-10°C~+55°C
Power Consumption	DC 24±0.5 V
Cleaning time	2S
weight (including handle)	7.75Kg
Volume	Mainframe: 378mm×200mm×162mm; Handle: 166mm×43×32mm

Offsoon Mark II PLUS Fiber Endface Cleaning Machine

Take full account of the convenience of the operator, and optimize the original design to make the operation of the cleaner simpler. Offsoon Mark II Plus can quickly and efficiently clean female connector endface, solve the problem of difficult cleaning of the female connector endface, ensure no foreign material connection, and achieve optical characteristics of low insertion loss and high return loss. Applications include Optical transceivers cleaning , TOSA / ROSA cleaning, attenuators cleaning.

Main Features

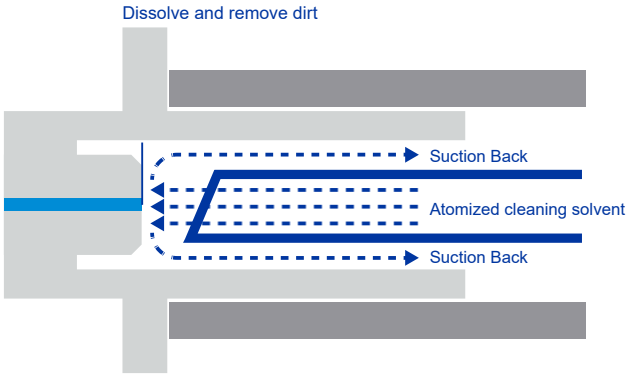
- Non-contact to protect fiber endface
- Over 95% High Cleaning efficiency
- Safety and humanized design
- Easier operation
- Fully functional, one key operation
- Various cleaning tips

Applications

- Optical transceivers
- TOSA and ROSA
- Optical Attenuators

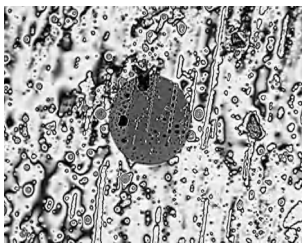
Non-contact to protect fiber endface

Offsoon Mark II Plus uses a precise non-contact gas-solvent-gas sequence to blast and remove contamination particle , and the entire cleaning process is only 2 seconds.

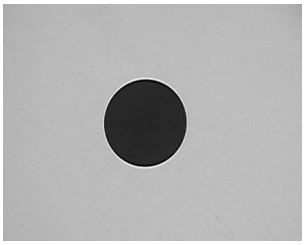


Over 95% High Cleaning efficiency

The Offshore Mark II Plus improves the circuit and gas circuit structure, greatly improving the cleaning efficiency.



Before



After

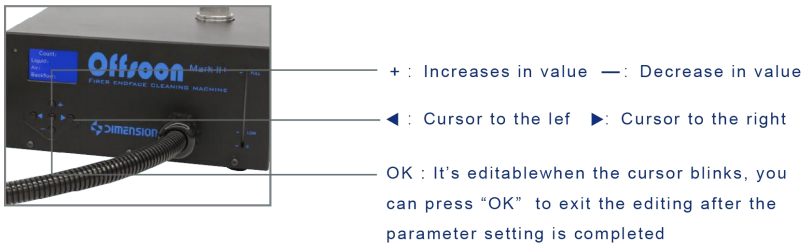
Over 95% High Cleaning efficiency

Offsoon Mark II Plu's solvent refill is very easy and convenient. It will not scratch the end face because the cleaning method is non-contact, the waste cleaning solvent and gas are aspirated back to the machine, which will not harm the operators.

Easier operation

Offson Mark II Plus does not require any pressure adjustment. Display screen and keys are added to display and adjust parameters.

Combination buttons description:
Press"OK"&"—" and hold for 1 second: reset the count of cleanings to zero
Press"OK"&"+" and hold for 1 second: enter the editable state



Specification

Item	Parameter
Gas Resource	Dry and Clean N_2, CO_2, or air
Gas Pressure	0.4Mpa—0.6Mpa
Power Consumption	5W
Operating temperature	+5°C~+35°C
Storage temperature	-10°C~+55°C
Power	DC 24±0.5 V
Cleaning time	2S
weight	6.05Kg
Volume	Mainframe: W205mm×H92.5mm×L256mm; Handle: W24mm×H45mm×L110mm

Fast Check MT Fully Fiber Endface Inspector

Automatic Measurement

Automatic Focusing

Automatic Centering

With the upsurge of artificial intelligence, digital reality, etc., the demand for endface inspection requirements such as 800G, 1.6T optical transceivers, MPO connectors and high -density connectors globally, and the efficiency of production detection has continued to face challenges. In order to quickly improve the efficiency of the production fiber endface inspection, Dimension launched Fastcheck MT Fully Fiber Endface Inspector. For optical transceivers and connectors, the field of view is large enough to inspect all the fibers of the Endface at one time. It is more convenient to use for automation scenario due to automatic focusing, automatic finding center, and automatic Pass/Fail analysis can quickly improve the test efficiency. At the same time, it stores pictures and reports to facilitate production traceability.

Main Features

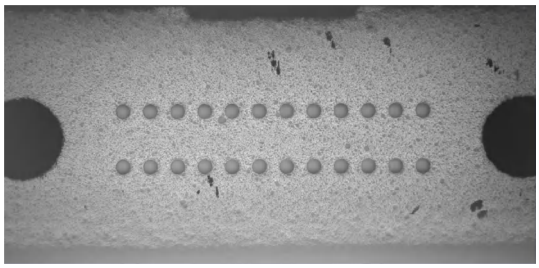
- Fully Fiber Endface Pass/Fail inspection at one time.
- Full automatic detection, high efficiency, measurement speed for about 5 seconds.
- Compatible with a variety of MT connector types and transceivers inspection.
- Software interface is user-friendly.

Main Application

- 400G/800G/1.6T and other multifiber transceiver manufacturing.
- MT/MPO/MMC/SN-MT or other multifiber connector manufacturing inspection.

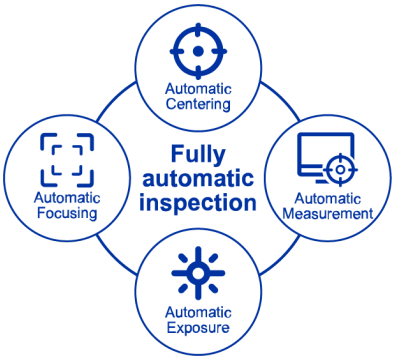
Fully Fiber Endface detection at one time

Fastcheck MT, its hardware adopts a large field of view camera and optical path system. Thanks to the large field of view, it can realize a fast inspection on multifiber at a time which effectively improves the production efficiency.



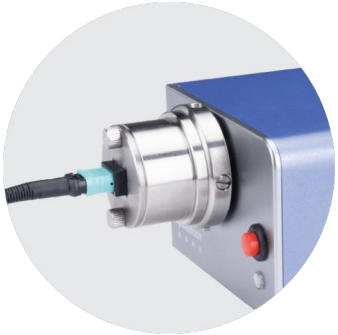
Automatic Pass/Fail analysis, high efficiency

Automatic focusing, automatic finding center, automatic exposure, automatic inspection, reducing manual operations, and reducing dependence on operators. The test speed is about 5s.



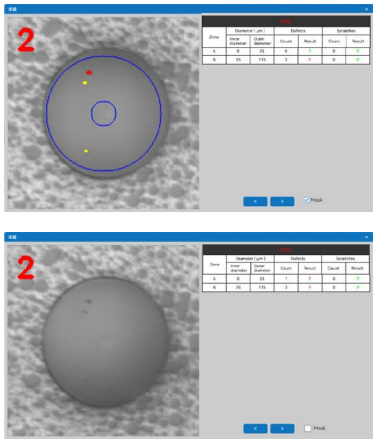
Compatible with a variety of MT connector types and transceivers inspection

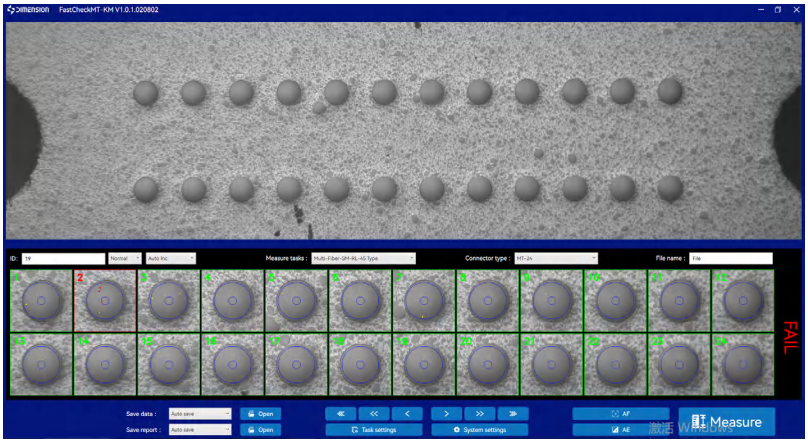
A variety of modules such as 400G/800G/1.6T and MT/MPO/MMC/SN-MT and other connectors are compatible.



Software interface is user-friendly

PC Software interface is user-friendly, complete, easy-to-use,the real -time images and Pass/Fail analysis results are clearly visible.





Parameter performance

Type	Parameter
Field of view	5.2 mm×2.5 mm
Defect size detection	0.8um
Effective resolution	1.6um
Magnification	0.95 um/px or 200x
Focus	auto
Measurement time The indicated values do not include autofocusing time	2.1 sec for MT12 2.5 sec for MT16 2.6 sec for MT24
Light source	royal blue LED, 465 nm
Camera type	digital, USB3.0
Sensor type	monochrome, 5472 x 3648,1"CMOS
Live image	19.2 fps full resolution
Power source	DC 24V
Dimensions (H x W x L)	286mm x 101mm x 86mm
Weight	2.7kg
Operating temperature	-10 to +40°C

AutoGet MT
Fiber Endface Inspector

CPO (Co-Packaged Optics) Technology Breaks Through Bandwidth Limits Against the backdrop of its accelerated adoption, the deep integration of optical engines and chips has imposed stricter requirements on fiber end-face quality. Dimension Technologies' Autoget MT fiber endface inspector is designed precisely to address this challenge.Tailored for silicon photonics, 1.6T/800G optical modules, and next-gen high-density connectors, this device delivers an intelligent inspection solution. Its large-field-of-view (FOV) design ensures full-core coverage in a single scan, while ultra-high-resolution optics accurately detect micron-level defects. Powered by AI-driven algorithms, it automatically analyzes end-face imperfections, making it a critical tool for ensuring the reliability of CPO systems—supporting efficient data center operations and smarter future network infrastructure.

Key Features

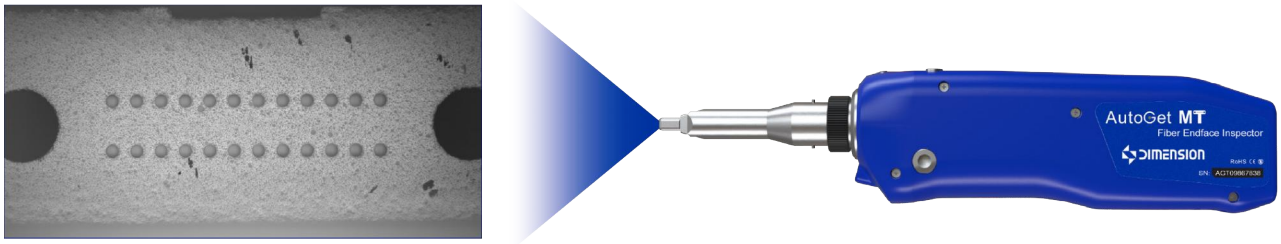
- High-Speed Inspection – Full end-face focusing and detection in <5 seconds.
- Fully Automated – Auto-focus, auto-measurement, and AI-powered defect analysis.
- Ultra-High Resolution – Micron-level defects are fully captured with zero omission

Applications

- Data centers
- 5G optical network construction and maintenance
- University Research Laboratory"

Large field of view, full fiber core inspection in one scan

With a large field of view of 4.6mm×1.6mm, AutoGet MT ensures all fiber cores are inspected in a single scan, providing clear detection of fiber end-face defects and surrounding conditions.



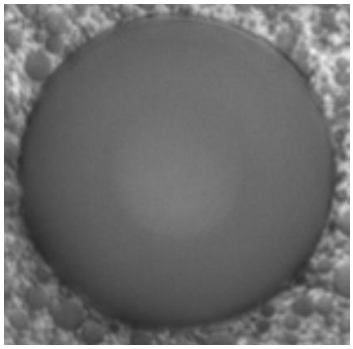
Fast inspection, multi-core autofocus detection time <5s

Equipped with an outstanding software algorithm, AutoGet MT enables rapid measurement while detecting even the smallest scratches and contaminants on the fiber end-face.

The analysis time for 12-core products is just 5 seconds, significantly improving inspection efficiency without compromising accuracy.

Crystal-clear resolution
No defect escapes detection

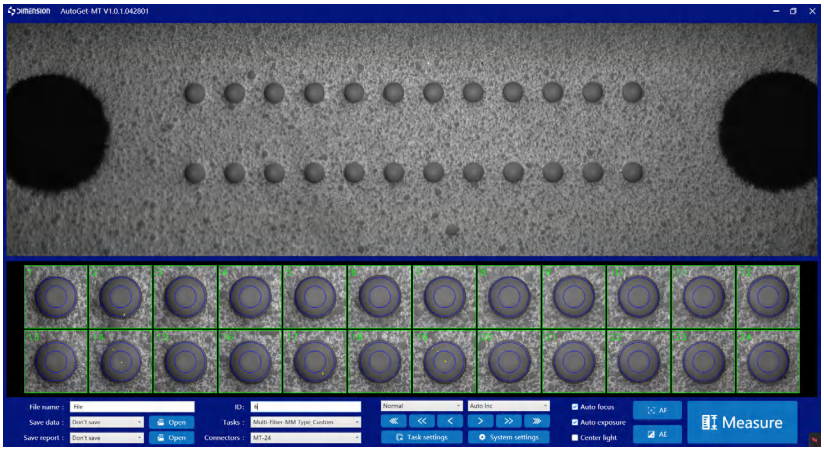
With a single-pixel resolution of 0.96μm and high-precision optical lenses, the system clearly captures micron-level defects on fiber end-faces—including scratches, particle contamination, and pits—ensuring reliable quality inspection for CPO, 800G optical modules, and other high-precision applications. No flaw can escape detection.



Intelligent Software , One-Click Auto Inspection

AutoGet MT is equipped with Dimension Tech's proprietary intelligent software, featuring automatic analysis, autofocus, fiber switching, and fiber end-face evaluation.

With an intuitive interface and simple operation, a single click enables seamless measurement, providing a comprehensive view of fiber end-face defects.



Lightweight & Portable – Ergonomic Grip

Designed with ergonomics in mind, the AutoGet MT is lightweight and easy to carry, allowing for one-handed operation and a comfortable user experience.

Dedicated autofocus and capture buttons enable effortless image acquisition of fiber end-faces.

Versatile Interface Accessories

AutoGet MT offers a variety of interface adapters, providing extensive application options. It supports 800G/1.6T optical modules as well as new-generation connectors such as MMC and SN-MT.

Specifications

Project	Parameter
Pixel Size	0.96μm
Image Sensor	1" CMOS
Optical Magnification	x2.44 ~ x2.6
Power Consumption	6W
Power Supply Method	USB Type-C Power Supply / DC 5V
Auxiliary Functions	White LED Ambient Lighting
Operating Temperature	-5°C ~ 40°C
Storage Temperature	-20°C ~ 55°C
Weight	450g
Dimensions	(L) 230mm × (W) 34mm × (H) 55mm
Display Field of View	4.6mm × 1.6mm
Video Signal Format	RAW8
Focusing Method	Auto
Signal Output Method	USB 3.0
Software Version Compatibility	64-bit System
Recommended PC configuration	CPU i5 12th generation and above, Main frequency 2Ghz

EasyGet WiFi MT Wireless Full Fiber Endfaces Microscope

With the rapid development of MT fiber connectors, the quality requirements of their endfaces are becoming more and more stringent. Not only must the MT ferrule endfaces defects be inspected, but also the quality of PIN holes must be checked. EasyGet Wifi MT wireless full fiber endfaces microscope can quickly and easily inspect the MT all fiber endfaces in a large field of view at one time to ensure the reliability of fiber connection. It transfers real-time videos or images via Wifi to intelligent terminals, field technicians can visually check the quality of MT full fiber endfaces on their own mobile devices. Lightweight and portable, easy to use, built-in battery, and universal Type C interface and LED lighting, all these user-friendly designs, providing users unparalleled handling experience, making it the most practical MT fiber endfaces inspection tool for technicians.

Main Features

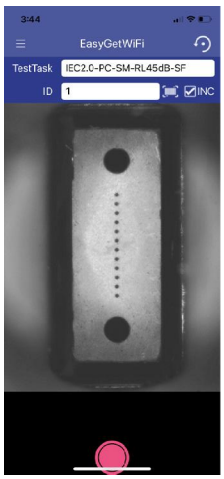
- Wide-field full endface inspection
- Smart interface replacement
- Supports Wifi and USB data transfer
- Real-time viewing and auto-save images, a design that is intuitive and intelligent
- Compatible with mainstream intelligent terminals (Wins/Android/iOS)
- Built-in battery with duration up to 5 hours
- Universal USB Type C interface, compatible with various charging devices
- Unique LED light, flexible for low-light or dark environments

Applications

- 5G optical network construction and maintenance
- Data centers
- High reliability fiber connections
- Laboratory and manufacturing test

Full endface inspection at one time

The unique internal LED lighting method ensures the sharpness and uniformity of the image, and improves the detection area up to 7.03mmX3.6mm. One-time inspection of the entire end surface image can clearly the detects of the fiber end surface and the surrounding conditions of the PIN hole.

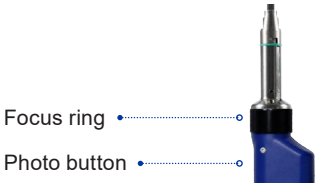


Smart interface replacement

The interface is easy to install and rotate quickly. Replacement with different interfaces can support detection of MPO / PC, MPO / APC, MPO optical module, MT ferrule and other products.

Lightweight and portable, easy to use

EasyGet Wifi MT is lightweight, portable, and durable. Single hand operation and slim body designs enable inspection for even the most complicated scenarios. The unique surround focus ring and image capture button, makes the fiber endface inspection easier.



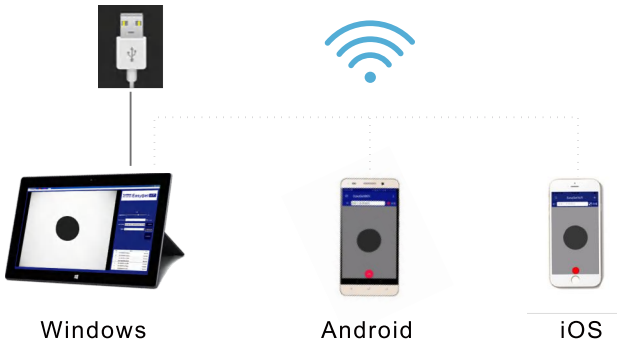
211mm×44mm×33mm

Wide OS Compatibility

EasyGet Wifi MT software is widely adaptable and can be used on PCs and various mobile devices with mainstream operating systems (Wins/Android/iOS). You can use smart phones, laptops, or tablets directly for convenient operation. Scan the QR code on the body to download and install the EasyGet Wifi APP. The software is available on main online markets. No special training is required and the installation is easy and convenient.

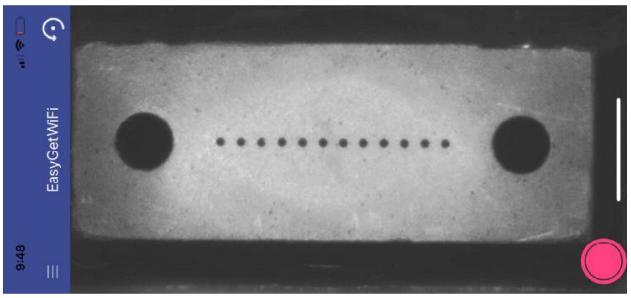
Wifi Data Transfer

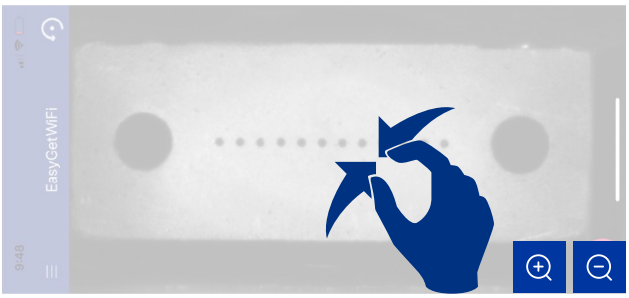
EasyGet Wifi MT can transfer the fiber end face images to various display terminals via Wifi. By pressing the button on the body or click on smart devices, users can capture the fiber endface images or save them on display terminals, a convenient way to view and save images online.



Intuitive interface, intelligent displays

EasyGet Wifi MT has the most user-friendly design. The interface is simple, intuitive and intelligent. In addition to viewing and recording the fiber endface status, users can pinch-zoom images, and rotate the screen as desired.





Universal USB Type C interface

EasyGet Wifi MT has a built-in rechargeable intelligent battery with duration up to 5 hours in a single operation. It also can be used while charging. EasyGet Wifi is equipped with an universal USB Type C charging interface, which is compatible with various charging devices, such as PC's USB interface, power bank, etc. Users do not need to carry a dedicated charging device.

Unique LED lighting

EasyGet Wifi MT is equipped with LED light, which can be easily used even in low-light or dark environments and provide Dimension customers with great convenience.

Specifications

Projects	Parameters
Resolution	5.5um
Image Sensor	Five million CMOS
Optical Magnification	0.81X
Video Signal Format	MJPEG
Field of View	7.03mm*3.6mm
Focusing Mode	Manual
Signal Output	WiFi; USB Type C
Software Compatible	Android 4.2/IOS 9.3/PC Win7 or later versions
Power Supply	Built-in Li-ion battery(chargeable & replaceable)
Life time	5 hours
Charge Time	2.5 hours
Charge Adapter	USB DC adaptor 5V/2A, including US,EU,UK,AU…adapters
Accessibility	With white LED environment lighting
Operating Temp	-5°C~ +40°C
Storage Temp	-20°C~ +55°C
Relative Humidity	<90%(Working/Storage)
Weight	210g
Size	211mm×44mm×33mm

SmartCheck Integrated Fiber Endface Inspector

inspection instruments launched by Dimension Technology. It features automatic analysis, automatic focusing, and automatic measurement, enabling fully intelligent testing. With high accuracy and high efficiency, Smartcheck has become a new benchmark in the fiber inspection industry.

Main Features

- Automatic analysis, automatic judgment, automatic focusing, and automatic fiber switching
- Measurement of 12-fiber multi-core connector end faces takes only 5 seconds
- Easy switching between PC and APC connectors
- Various fixtures accommodate testing for different products
- Generate detailed reports for easy data recording

Applications

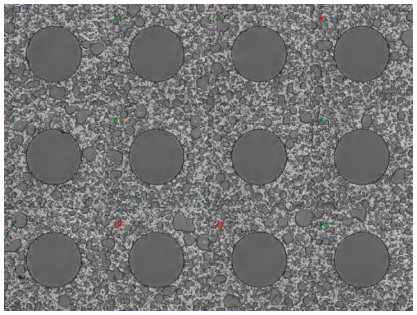
- single and multi-fiber connectors
- Multi-fiber module

Easy to operate, test takes only 5 seconds

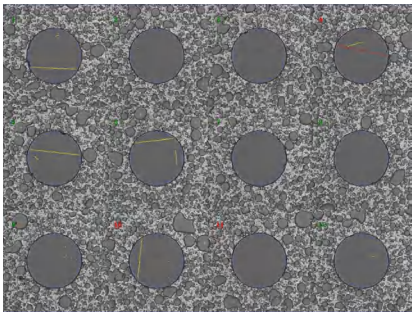
SmartCheck boasts outstanding software algorithms and is user-friendly, capable of distinguishing the smallest scratches and dirt spots on the fiber end face; the analysis time for 12-core products is only 5 seconds, improving the testing efficiency and accuracy of inspection operations.

Automatic analysis function to automatically identify defects on the fiber end face

SmartCheck features automatic analysis, automatic focusing, automatic fiber switching, and automatic determination of fiber end faces, making the testing of multi-core connector end faces intelligent and effortless.



Automatic analysis

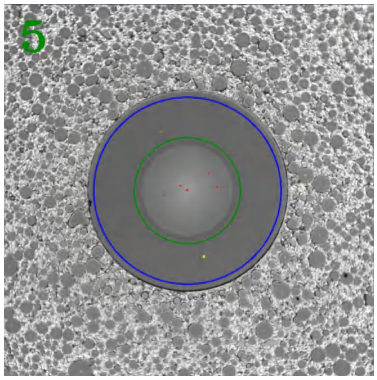


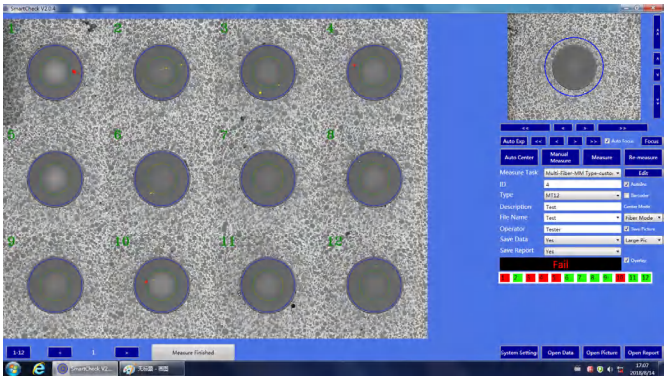
One-click operation, fully automated testing process

With well designed optical system and fully automatic testing process, Smartcheck only needs 5s to test MT12 connectors efficiently.

Clear imaging and stable data connection

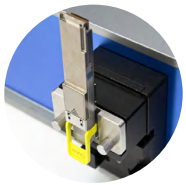
After inserting the fiber connectors, Smartcheck can test all the endface up to 72 core fibers just in one-click on “Measure” button.





Professional fixture platform, compatible with mainstream testing scenarios

SmartCheck features a professional fixture platform design, which can be adapted to most types of testing requirements on the market by replacing fixtures. The stable structure can ensure the stability of measurement results to the greatest extent.



Customizable judgment criteria can automatically generate reports and statements

SmartCheck has default end face evaluation Settings that meet IEC requirements and can generate customized test standards to meet customer needs. Whether it is the A, B and C zones on the end face of the optical fiber, or the number of spots, the width and length of scratches, they can all be adjusted as needed, which greatly improves the production efficiency. For each test, SmartCheck will automatically generate a detailed Excel report on the end face condition.

Specifications

Item	Parameters		
Type	400X	200M	200M8
Magnification	20X	10X	10X
Resolution	0.27um	0.54um	0.54um
Testing Connectors	Singer fiber, MTRJ, MPO, MTP(2-72 core)	Multi-core optical module	800G
Testing Speed	5s (12 core,excluding the auto focusing time)		
Scan Distance	6mm×15mm	6mm×3mm	8.6mm×4mm
Data Link	USB 2.0		
Power Supply	DC 24V		

FastCheck Pro

Fully Automatic Fiber Endface Inspector

In order to meet the automation testing of optical components, modules, and connectors, and improve production testing efficiency. Dimension focuses on developing a FastCheck Pro Fully Automatic Fiber Endface Inspector, which is more suitable for automated production inspection systems. By adopting the latest combination of software and hardware, we aim to improve device clarity, enhance detection capabilities, achieve automatic centering, autofocus, autoexposure, automatic measurement, network communication, and IO control, making it an ideal choice for automated production lines.

Main advantage

- Excellent detection ability to adapt to automation
- Fully automatic measurement
- Network control transmission data
- The image quality is clear

Main application

- Inspection of optical fiber connectors
- Optical transceiver modules
- TOSA/ROSA components, etc.

Fully automatic measurement

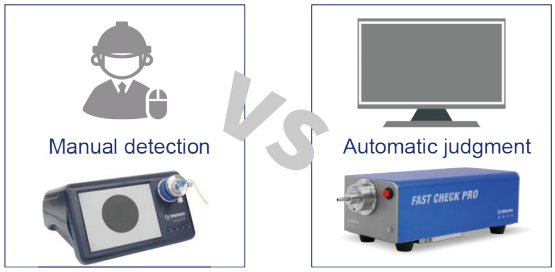
FastCheck Pro is a fully automatic end face detector with automatic functions such as automatic centering, automatic focus, automatic exposure, and automatic measurement.

Excellent detection ability to adapt to automation

FastCheck Pro aims to achieve efficient automated production inspection, with improved hardware and software capabilities, as well as synchronous improvements in detection capability and stability. By combining IO communication interface with automation equipment and Offsoon Pro, a fully automatic cleaning and detection system is formed,achieving automatic loading and unloading, automatic cleaning, automatic detection, automatic capping and other fully automatic functions.

The image quality is clear

FastCheck Pro adopts a digital imaging solution, and the image quality reaches the same level as that of EasyCheck V2 series 200X. Encourage manual inspection during the manufacturing process of components and modules to realize automatic judgment and improve inspection efficiency.



Network control transmission data

FastCheck Pro supports network transmission, and the PC software can support the connection and operation of 4 FastCheck V2 devices at the same time. Say goodbye to the traditional one-to-one connection between the terminal tester and the PC via a data cable.

Performance parameter

Type	Parameter
Optical magnification	10X
Field of view size	960umX540um
Resolving power	1um
Measuring speed (without focus)	1s
Measurement method	Auto
Focus method	Auto
Operating temperature	-10°C~40°C
Storage temperature	-20°C~55°C
Voltage	DC 24V
Weight	2.7kg
Size	286mm×101mm×86mm

EasyCheck V2 Digital Fiber Endface Inspector

EasyCheck V2 is a Digital Fiber Endface Inspector developed by Dimension, which adopts the digital solution to upgrade the software and hardware of EasyCheck series products. EasyCheck V2 has improved image resolution and reduced noise; stable performance and reduced failure rate; support Network transmission, interconnection with Dimension EasyGet Digital handheld fiber probe, scan gun or foot switch, etc.

Main Features

- Digital solution with high image resolution and low noise
- Stable performance, good consistency, low failure rate
- Stored images clearer
- Support SD card, U disk and network transmission
- Inspect female connectors with Dimension's EasyGet Digital probe
- More accessibility features
- Multiple magnifications, 80X, 200X, 400X

Applications

- All kinds of fiber connectors, transceivers, TOSA/ROSA, etc.

Excellent image quality

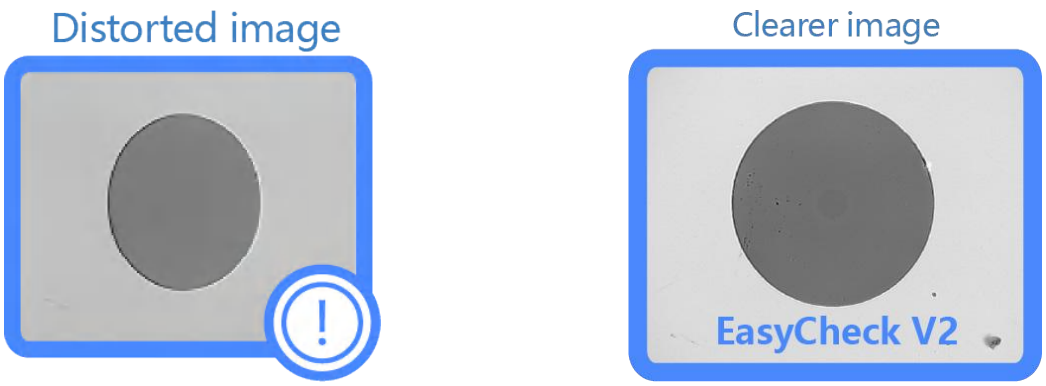
EasyCheck V2 adopts the digital imaging solution to improve image resolution and reduce noise, resulting in clearer images and clearer contrast of fiber endface defects.

Good consistency and low failure rate

EasyCheck V2 is upgraded through hardware solutions to ensure consistency between devices, stable performance, and greatly reduces failure rate.

Stored images are clearer

EasyCheck V2 stores the images of the fiber endfaces more clearly.



Support SD card, U disk and network transmission

EasyCheck V2 has images acquisition function and supports multiple storage methods, including SD card, U disk and network transmission storage. the name of the picture can be customized and automatically entered, which can effectively analyze the quality of the stored pictures.

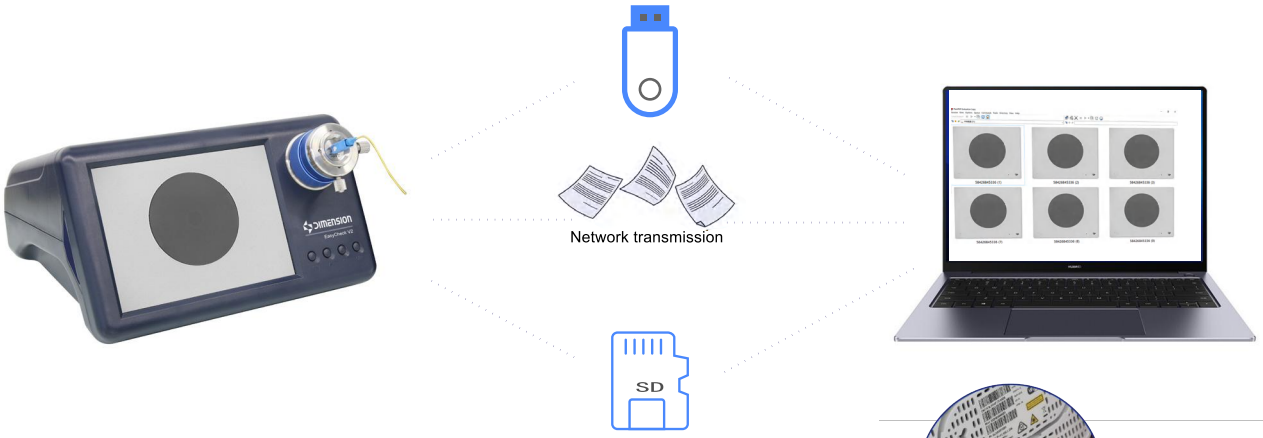


Image input and output

EasyCheck V2 provides image input and output functions, which can be connected to the HDMI interface display screen to meet the special needs of users; it can be interconnected with EasyGet Digital handheld fiber probe to easily inspect various female connectors.

More accessibility features

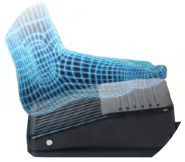
To meet the operability of production line employees, EasyCheck V2 can be connected to an external code scan gun to automatically enter the product serial numbers, an external foot switch to trigger the image storage, and an external keyboard or a mouse for custom settings, which is more convenient and quick to use.

Lan

Mouse and keyboard

HDMI

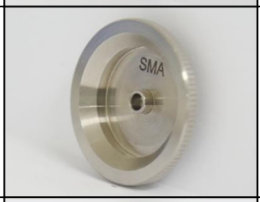
Scan code gun



Foot switch

Interface list

EasyCheck V2 is equipped with a variety of adapter interfaces to inspect various fiber connectors, transceivers, TOSA/ROSA, etc. The following is a list of some common interfaces.

Model number	Material number	Adaptor name	Picture	Detectable device	Detection diagram
EC-K-N005	201010014	1.25mm/PC dual core adaptor interface		1.25mm/PC dual core adaptor LC/PC male Duplex MU/PC male Duplex	
EC-K-N006	130101000065	SMA/PC ferrule adaptor interface		SMA/PC male	
EC-K-N010	20002041 201010032	FC/PC adaptor		FC/PC adaptor	
EC-K-N014	20002022 201010017	E2000/PC adaptor		E2000/PC male	
EC-K-N016	120020026 130101000057	MT/PC ferrule adaptor		MT/PC Ferrule	

Model number	Material number	Adaptor name	Picture	Detectable device	Detection diagram
EC-K-N017	20002005 201010005	MPO/PC adaptor		MPO/MTP adaptor Note: For MPO/MTP adaptor,EC400KC is only applicable to Female's inspection, EC400KD is compatible with Male/Female's inspection	
EC-K-N026	120020072 130101000056	SC module adaptor		Conventional light emitting component, light receiving component, optical module, adaptor SC Tosa / SC Rosa SC module / SC adapter	
EC-K-N028	120020073 130101000054	LC module adaptor		Conventional light emitting component, light receiving component, optical module, adaptor LC Tosa / LC Rosa LC module / LC adapter	

Specifications

EasyCheck V2 has images acquisition function and supports multiple storage methods, including SD card, U disk and network transmission storage. the name of the picture can be customized and automatically entered, which can effectively analyze the quality of the stored pictures.

Item	Parameter
Magnification	80X、200X、400X
Image format	Digital imaging
Sensor	1/2 inch、CMOS
Image size	16mm、40mm、80mm
Adjustable range	X: 4mm、Y: 4mm
X/Y axis adjustment	Optional
Focus method	Manual
EasyGet Digital input port	Yes
Display screen	8”TFT 1024x768 PIX
External interface	2xUSB、1xSD、1xLan、1xHDMI
Power	6W
Working temperature	-10°C~ 40°C
Storage temperature	-20°C~ 55°C
power supply	DC 12V
Weight	1.6kg
Volume	270mm×245mm×155mm

EasyCheck Dual Magnification Fiber Endface Inspector

——EC200/80KML、EC400/200、EC200/40KC

Dimension's dual magnification fiber endface Inspector can quickly and efficiently inspect the quality of fiber end-faces under double-magnification through two screen simultaneous display or switch display. Under large magnification, it can inspect fine defects on the endface of fiber. The advantage of this equipment is that one station, one device, and one focusing can realize fiber endface inspection at double rate, saving inspection stations, improving inspection efficiency and reducing production costs.

Main Features

- Dual Magnification Inspector
- High definition image
- Various interface designs
- Automatic scan code to store picture(EC400/200)
- Optional foot switch to switch magnification(EC400/200)

Applications

- EC200/80KML: Fiber connectors, transceivers, TOSA/ROSA etc
- EC400/200: Fiber connectors
- EC200/40KC: Fiber connectors, TOSA/ROSA etc;

Dual Magnification Inspector

Focusing once, EC200/80KML can simultaneously view the 200X and 80X double-magnification surface through Easycheck magnification fiber endface Inspectors two screens, and can also switch the magnification by pressing the button; EC400/200 can switch between 400X and 200X the magnification by pressing the button or the foot switch (optional). View small defects under high magnification and view a larger area under small magnification.it can save inspection stations, improve inspection efficiency and reduce production costs.

Double power simultaneous detection

High definition image

Easycheck dual magnification fiber endface Inspectors,with the optimal optical system design, high-resolution image sensor and 8" pure black and white digital TFT display, shows you the details of the fiber endface truely.

Various interface designs

Easycheck dual magnification fiber endface Inspectors are equipped with a variety of adapting interfaces, which can meet the testing requirements of various products such as fiber connectors, transceivers , TOSA/ROSA etc.

EC200/80KML

Various interfaces

Convenient auxiliary functions(EC400/200)

In order to meet the operability of production line employees, the function of automatic scan code and storage of pictures is added, and the foot switch triggers the double rate switching function, which is more convenient and flexible to use.

Specifications

Type	EC400/200KC	EC400/200KD	EC200/80KML	EC200/40KC
Magnification	400X/200X		200X/80X	200X/40X
X Y adjustment	Yes		Yes	Yes
Focus	Manual		Manual	Manual
Image Output	——		AV OUT	AV OUT
Monitor	8” TFT 800×600 PIX		8” TFT 800×600 PIX	8” TFT 800×600 PIX
Interface	3×USB、1×SD、1×Ethernet		——	——
Power consumption	3W		3W	3W
Working Temperature	-10°C~ 40°C		-10°C~ 40°C	-10°C~ 40°C
Storage Temperature	-20°C~ 55°C		-20°C~ 55°C	-20°C~ 55°C
Power Supply	DC 12V		DC 12V	DC 12V
Weight	1.6kg		1.6kg	1.6kg
Size	270mm×245mm×155mm		270mm×245mm×155mm	270mm×245mm×155mm

FA-1 Fiber Array EndfaceInspector Model: FA-1 V2

The FA-1 V2 Fiber Array EndFace Inspector, developed by Dimension Technology, is a specialized inspection device designed for fiber arrays. Its professionally designed fixture features an adjustable-angle platform and an optical displacement stage, enabling effortless inspection of the entire fiber array end face. The instrument delivers exceptional clarity and offers a long service life. For fiber array end faces of various configurations and angles, the adjustable-angle platform reduces the need for continuous investment in different fixtures. The FA-1 V2 is an essential tool in the production of 1.6 T, 800G, and 400G optical modules.

Main Features

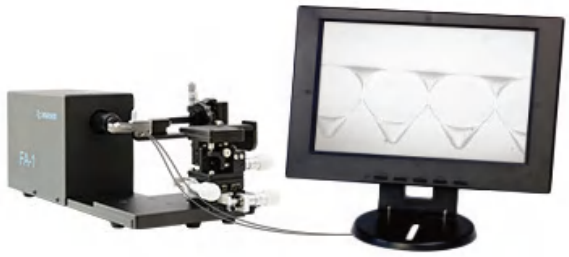
- Multiple magnification options balancing efficiency and effectiveness
- Capable of inspecting fiber arrays with up to 128 cores
- Professionally designed fixture
- Professionally designed adjustable-angle mechanism
- Professionally designed optical platform
- Measurement angle adjustable as needed

Applications

- Fiber array endface inspection

Superior Imaging Quality

FA-1 V2 offers 200×, 300×, and 400× magnification options. Equipped with optical components equivalent to Easycheck's grade, it establishes FA-1 V2 as the premier fiber array end-face inspector on the market.

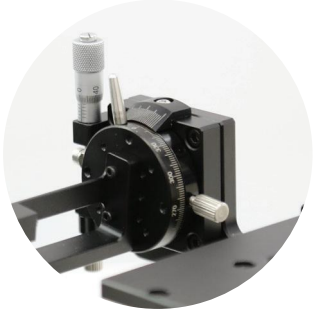


Outstanding Fixture Design

Each OTDR of Dimension technology has been specially calibrated by engineers, with fast test speed, accurate results and high test repeatability. It avoid repeated measurements due to inaccurate tests, creating a high-efficiency environment for you.

Professionally Designed Adjustable-Angle Mechanism

Each OTDR of Dimension technology has been specially calibrated by engineers, with fast test speed, accurate results and high test repeatability. It avoid repeated measurements due to inaccurate tests, creating a high-efficiency environment for you.



Precision 3D Platform

Employs a high-precision 3D platform as the fiber array (Fiber Array) carrier platform, which not only delivers high precision, but also features exceptional durability, significantly outlasting comparable screw-type models. Its ergonomic lever design enhances operation smoothness, boosting testing efficiency while reducing operator fatigue.

Performance Specifications

Item	Parameter
Magnification	200X 300X 400X
Video Output	PAL
Power Consumption	3W
Max. Fiber Cores	128 cores
Applicable FA Angles	0°, 6°, 8°, 10°, 45° (adjustable)
Power Supply	DC 12V
Weight	1.8kg
Dimensions	300mm×100mm×120mm

AutoGet Wifi Intelligent Fiber Endface Microscope

The primary cause of optical network problems is that the connector's endface is dirty or damaged, so, how to quickly and efficiently diagnose is particularly important. Dimension AutoGet Wifi is industry's first foldable, all in one handheld endface microscope. It provides an intelligent fiber endface inspection solution, which can automatically inspect and analyze single fiber, MPO or other multifiber connectors with unparalleled reliability, great efficiency and convenience. It is the most ideal solution in this area currently.

Main Features

- Fully automatic, one step process
- All in one design, Integrated HD touchscreen
- Excellent analysis ability (based on IEC or user-defined criteria)
- Multiple data transfer methods, supports SD card, Wifi or USB
- One-click inspection for MPO or other multifiber, back review is available
- Unique foldable body, flexible option for straight use or foldable type
- Unique Replaceable Intelligent Battery, "Permanent power" with 1+ battery
- Universal USB Type C interface, compatible with various charging devices

Applications

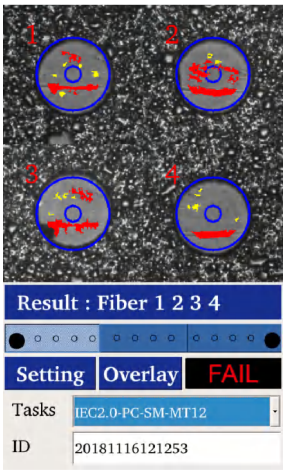
- 5G optical network construction and maintenance
- Data center
- High reliability fiber connection
- Laboratory and manufacturing test

All in one handheld fiber endface inspection

AutoGet Wifi achieves 5A design (Anyone, Any Fiber, Anytime, Anywhere, Automatic), that is, anyone (the engineers no need professional background and technical training, also able to perform it according to IEC or user-defined criteria), for any fiber endface, can one-click fully automatic operation at anytime and anywhere.

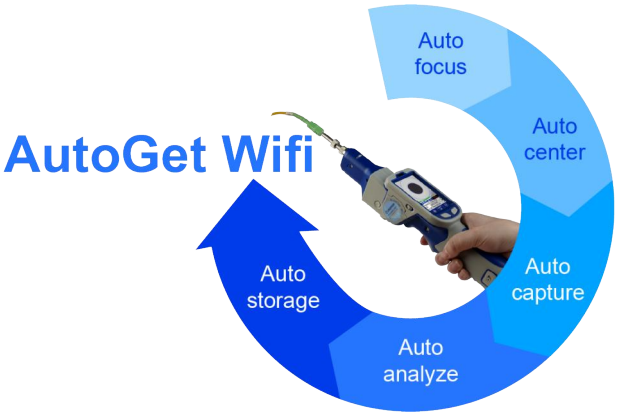
Unparalleled MPO automatic inspection and analysis

With the widespread use of MPO worldwide, MPO endface inspection is becoming more and more important. The AutoGet Wifi MPO adapter, makes it easy to inspect and analyze each fiber endface in MPO. With integrated HD touchscreen, users have fully control, can inspect all fibers with one button, to view and analyze in real time, also can pan and scroll across the screen to see all images, and back review the endface's analysis results.



Fully automatic, one step process

AutoGet Wifi integrates Dimension's autonomous image processing algorithm, to achieve 100% automatic operation. Such as auto recognition, auto focus, auto center, auto capture, auto analyse, and auto storage.



MPO Inspection

AutoGet Wifi's unique MPO interface adapter supports automatic and fast inspection of MPO and other multifiber connectors. Users can analyze all fiber endfaces with one click, and back review the analysis results.

Measurement Report

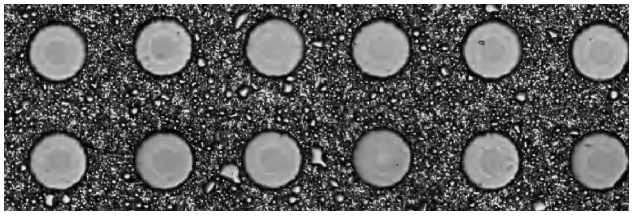
Dimension Technology Co.,Ltd.

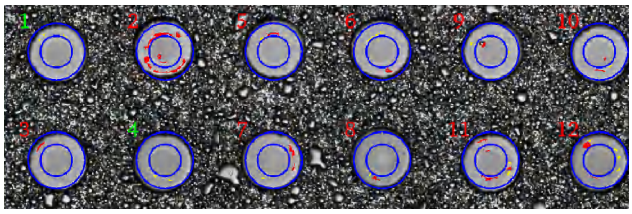
FAIL

Product ID	SN123456790
Description	Fiber endface inspection
Company	DIMENSION
Measure task	IEC2.0-PC-MM-MT12
Measure date	1970-01-01
Operator	Admin

Results

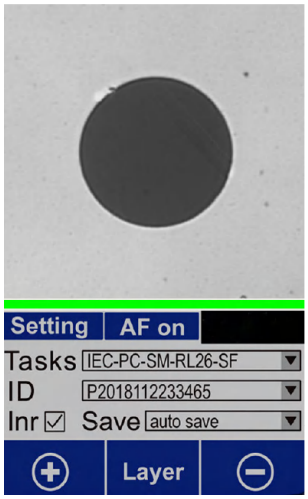
Zone	Zone 1				Zone 2				Zone 3			
Fiber	Name	Inner	Outer	Defects	Name	Inner	Outer	Defects	Name	Inner	Outer	Defects
1	A	0	65	0	B	65	115	3				
2	A	0	65	2	B	65	115	5				
3	A	0	65	0	B	65	115	1				
4	A	0	65	0	B	65	115	2				
5	A	0	65	0	B	65	115	2				
6	A	0	65	0	B	65	115	5				
7	A	0	65	0	B	65	115	3				
8	A	0	65	0	B	65	115	2				
9	A	0	65	1	B	65	115	2				
10	A	0	65	1	B	65	115	3				
11	A	0	65	1	B	65	115	5				
12	A	0	65	0	B	65	115	6				

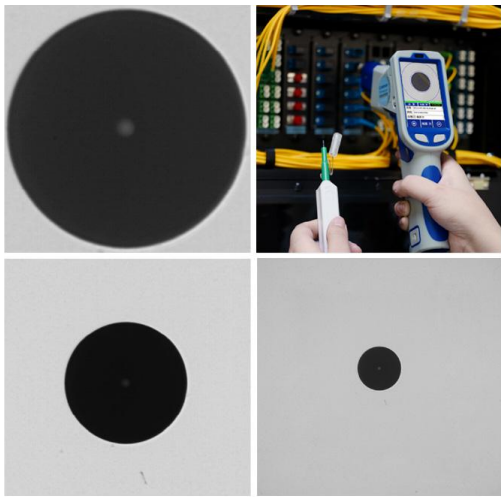




Excellent analysis ability

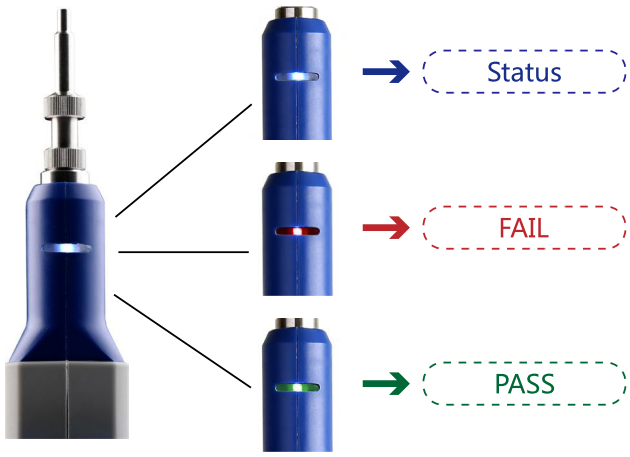
AutoGet Wifi performs precise and automated analysis based on IEC or user-defined criteria with multiple magnifications, not only has a wide field of view, but also with very rich details.





PASS/FAIL LED indicator

AutoGet Wifi performs precise and automated analysis based on IEC or user-defined criteria with multiple magnifications, not only has a wide field of view, but also with very rich details.

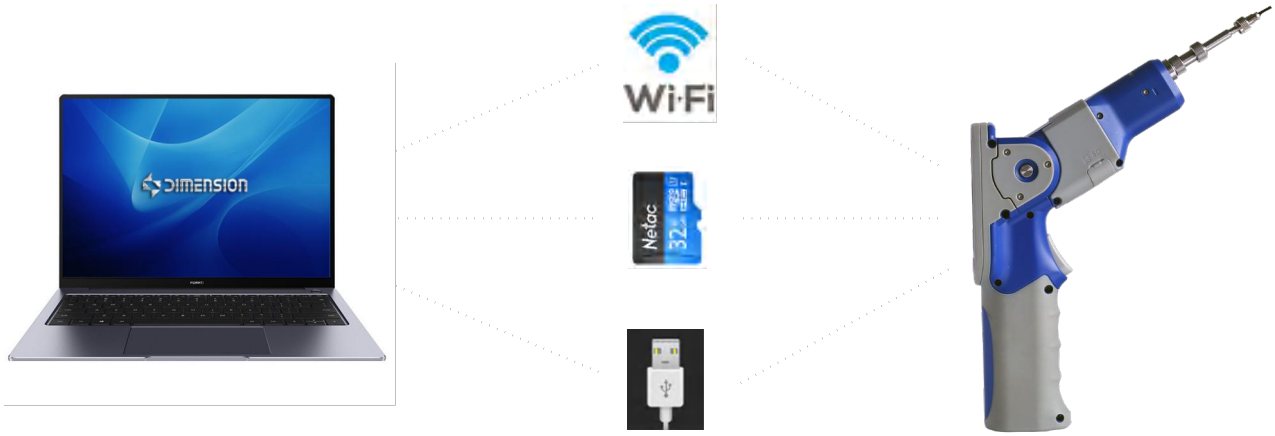


Integrated HD touchscreen

AutoGet Wifi adopts a 3.2” HD touchscreen, users can view images and analysis results without any third-party display terminals, easily checking the fiber endfaces.
Integrated light sensitivity function can automatically adjusts screen brightness based on ambient light and darkness.

Multiple transmission methods

AutoGet Wifi provides a variety of transmission methods, data can be stored directly on the device or connected to a PC via Wifi or USB, and to be exported.

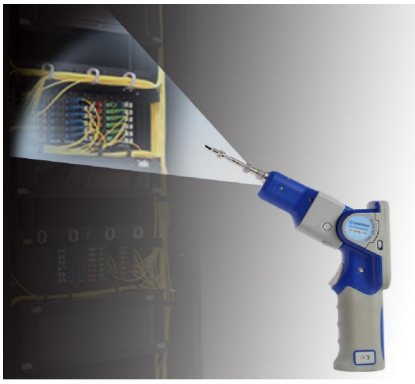


Unique foldable body

AutoGet Wifi has the industry's unique foldable body, it’s special shaft structure design, makes the body can be flexibly folded into a straight rod or pistol type (120°), easily meet the requirements of different application environments.

Unique LED lighting

AutoGet Wifi equipped with LED lights that can be easily used even in low-light environments, bring Dimension customers with great convenience.

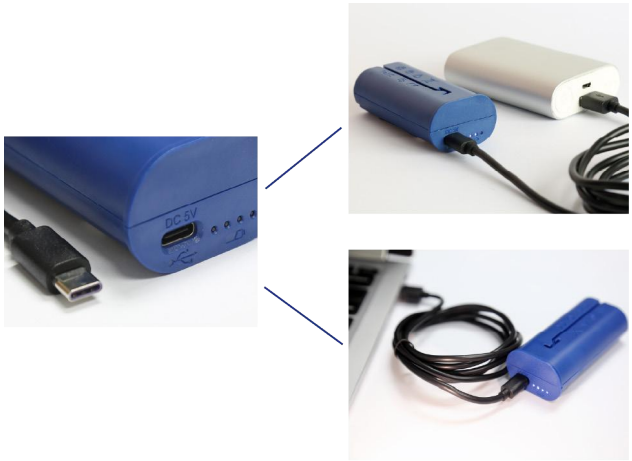


Unique LED lighting

AutoGet Wifi has an industry-replaceable intelligent battery. The battery can be charged independent and power lasts nearly 9 hours , also can be used it while charging . Users can buy 1 more battery to keep continuous power.

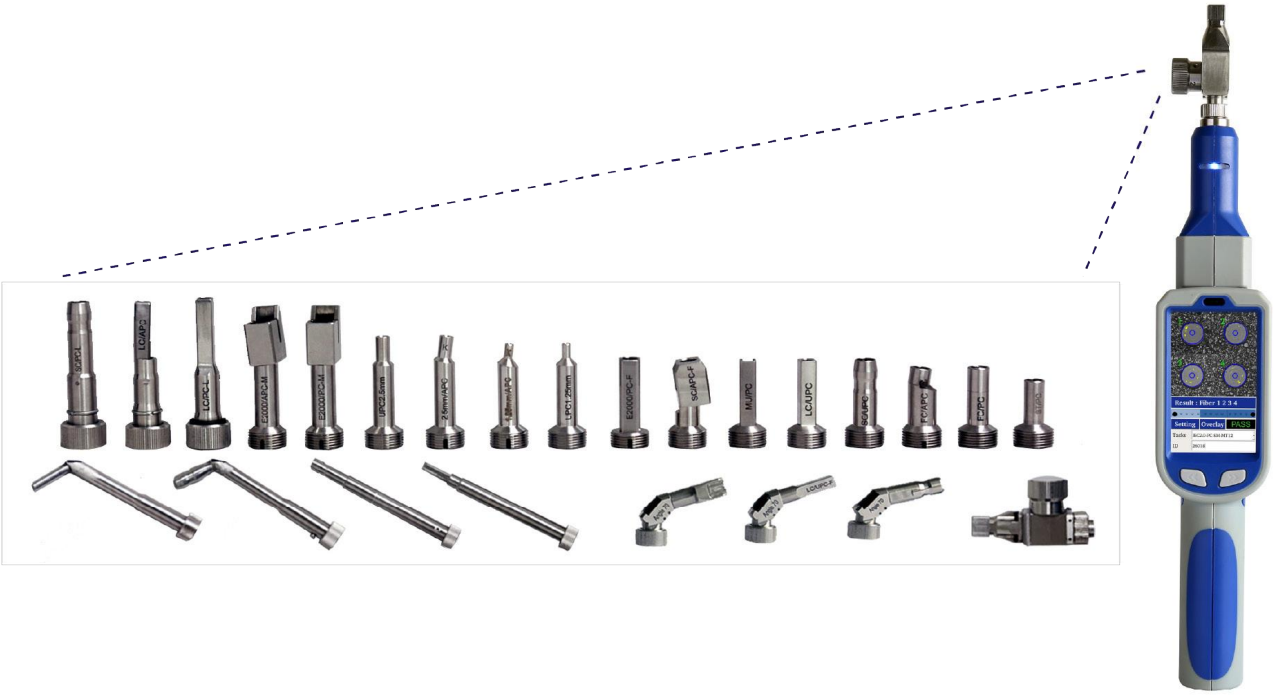
Universal USB type C interface

Universal USB type C interface



Rich adapter parts

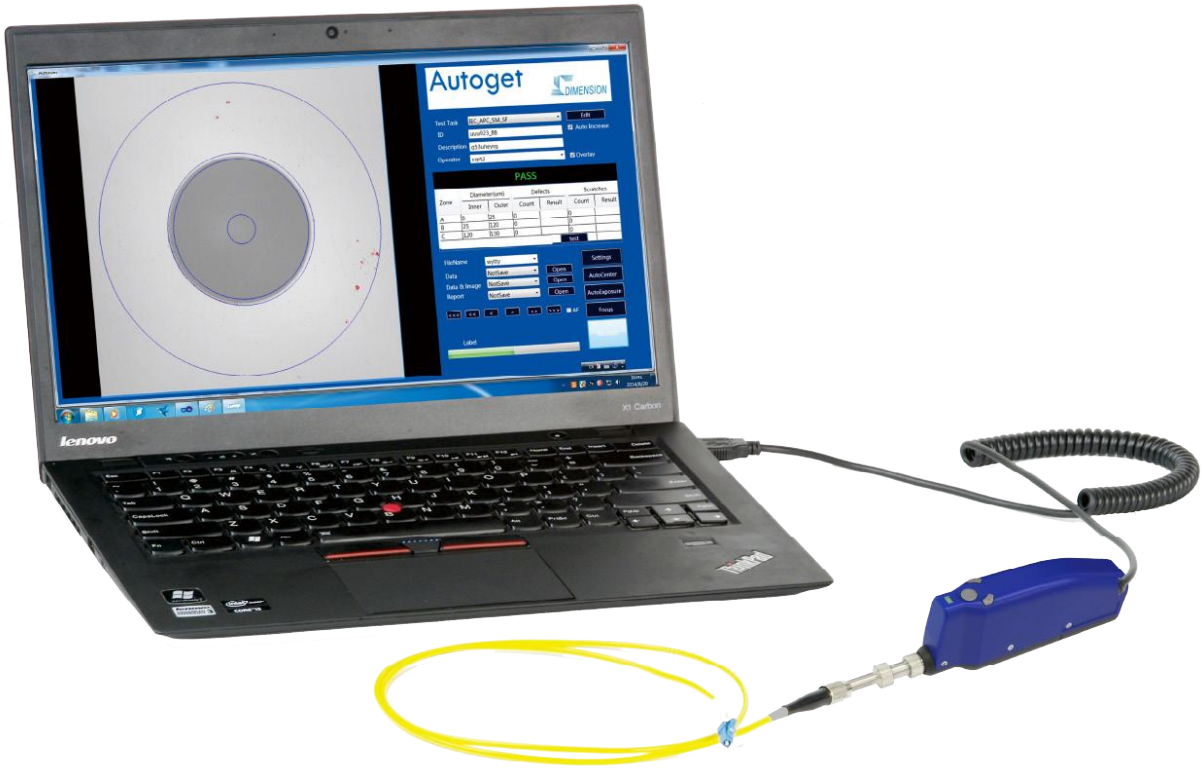
AutoGet Wifi has more than 50 kinds of adapters, can meet user's multiple inspection needs, support MF, compatible with MPO/MTP. Special adapter interface can be customed.



Specifications

Projects	MT Parameters	Common Interface Parameters
Resolution	0.92um	0.52um
Image Sensor	1/1.8” CMOS	
Optical Magnification	×5	×8.72
Display	480X800 3.2” LCD touch screen	
Display Frame Rate	25fps	
Field of View	1440um×1100um(Preview mode); 220um×220um(Measure mode)	620um×620um(Preview mode); 250um×250um(Measure mode); 130um×130um(Core mode)
Image Magnification	—	3 levels
Particle Detection	<1um	
Focusing Mode	Auto	
Signal Output	WiFi, USB Type C	
Power Supply	Built-in Li-ion battery(chargeable、replaceable)	
Life time	9 hours	
Charge Time	4hours(charging current: 2A)	
Charge Adapter	USB DC adaptor 5V/2A, including US, EU, UK, AU… adapters	
Accessibility	With white LED environment lighting, body can be 60°foldable	
Operating Temp	-5°C~ +40°C	
Storage Temp	-20°C~ +55°C	
Relative Humidity	<90%(Working/Storage)	
Weight	565g	
Dimensions	281mm×201mm×57mm(foldable); 341mm×67mm×57mm(straight)	

AutoGet Fiber Endface Microscope



Autoget is an intelligent portable fiber enface inspector developed by Dimension Technology. It is equipped with newest hardware and software, and with functions of auto focus, auto exposure, auto analysis, auto generate report, auto image transmission, etc. 400X Autoget can detect the defects such dirts, scratches clearly by its software.

Main Features

- Auto focus / Auto exposure setting / Auto centering
- Auto analysis / Auto reporting in Excel format
- High image quality
- LED indicator for working status
- Compact and Slim
- Compatible with IEC 61300-3-35
- Quick and one-click measurement

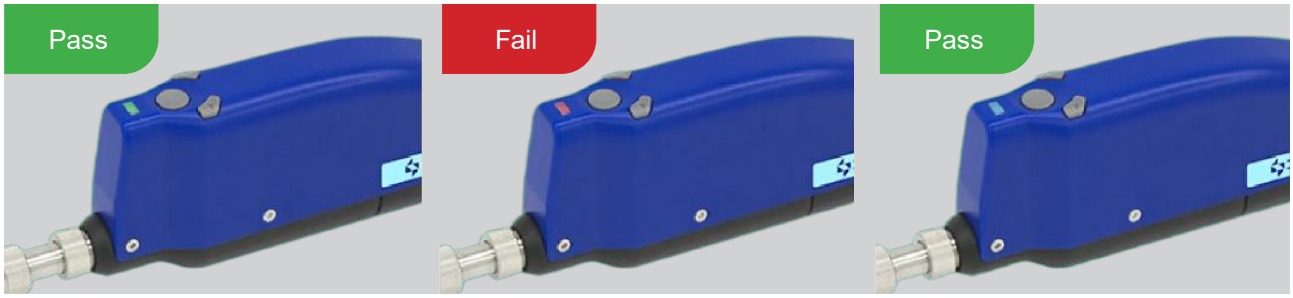
Applications

- Mainly used for data center, base station, equipment detection, and other outdoor environments, single-fiber, multi-fiber endface detection.

Auto Analysis

With the deep understanding on customer's requirement on visual inspection, the latest hardware and software, AutoGet can automatically analyze the fiber endface quality based on IEC standard or customer defined criteria. The accurate and repeatable measurement results don't rely on the skills or experience of operator.

Instant Status Indicator



The operator can get the instant feedback of the working status and testing results, from the user interface and the 3 color LED indicator on the probe. The blue LED shows a on-going measurement. The green LED indicates the testing result is PASS while the red LED indicates the testing result is FAIL.

Auto Centering

For more accurate image analysis, AutoGet identifies the shift of fiber core and moves the core to the center automatically.

Accurate Testing Result

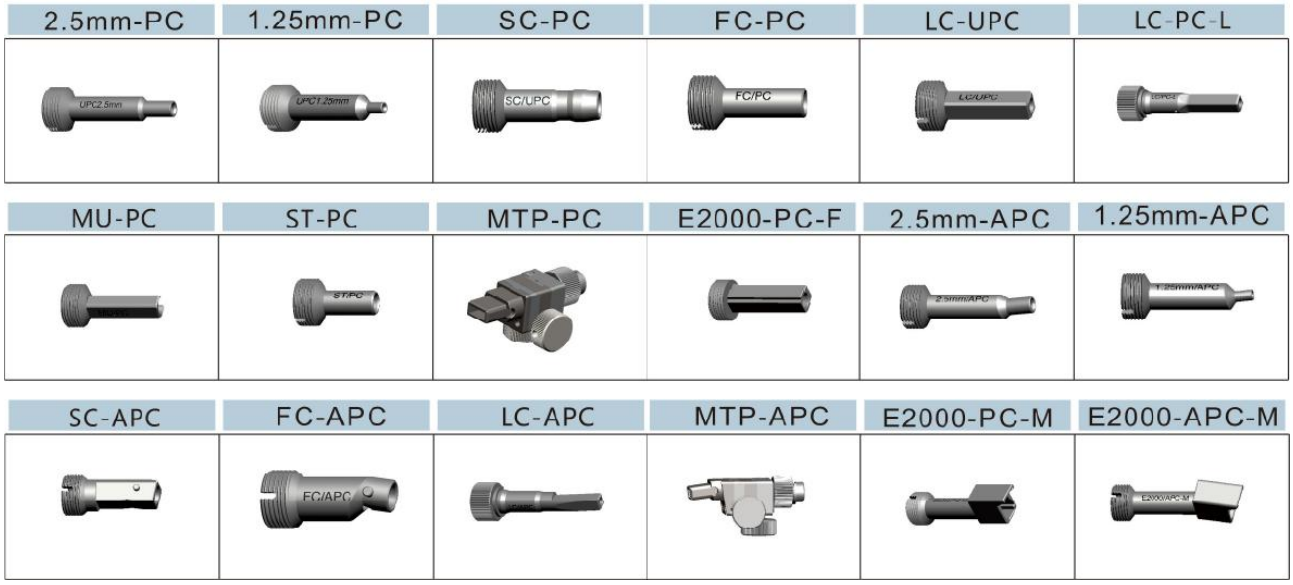
The optimized algorithm avoids any man-related misjudgments. The reliable endface inspection helps to ensure the product's ultra performance in the field application.

Fast Measurement

Benefiting from the fast focusing and image analysis, AutoGet can complete the whole testing in less than 2 second. In any scenarios, AutoGet helps to make the visual inspection easier and more efficient.

A full series of Adapters

Autoget is equipped with a full range of adapters to meet the requirements of fiber endface inspection in various occasions. AutoGet is simple and portable, and can be used for accurate measurement, both for factory use and for field use.



Flexibility

The compact design and series of adapters give AutoGet the flexibility for precise measurement, on desktop and on-site.

Trace-ability

For better trace-ability, AutoGet can save the data and report in different formats, following the configuration.

Specifications

Item	Parameters
Magnification	400X
Resolution	1.0μm
Focus	Automatic
System	PC; Smart Phone
Power	2W
Operation Temperature	-10°C~ +55°C
Storage Temperature	-20°C~ +60°C
Power	USB
Size (H*W*D)	182mm×48mm×25mm
Weight	152g

EasyGet Wifi Wireless Fiber Endface Microscope

EasyGet Wifi App

Available on the App Store

Available on the App Store

The dirt and/or damage on fiber endface of the optical connectors, could directly cause attenuation or even makes the optical path blocked down, they are the most common causes of optical network problems. Therefore, a lightweight, portable, fast and intuitive wireless fiber endface inspector is quite necessary and indispensable for field technicians.
Dimension EasyGet Wifi is a real wireless fiber endface inspection solution, it transfers real-time videos or images via Wifi to intelligent terminals, field technicians can visually check the fiber endface on their mobile devices. Lightweight & portable, easy to use, built-in battery, universal Type C interface and LED lighting, all these user-friendly designs, provide users unparalleled handling experience, making it the most practical fiber endface inspection tool.

Main Features

- Lightweight and portable, easy to use
- Support Wifi and USB data transfer
- The software interface is concise, intuitive and intelligent, and the images can be viewed in real time and automatically analyzed
- Compatible with mainstream intelligent terminals (Wins/Android/iOS)
- Built-in battery, duration up to 5 hours
- Universal USB Type C interface, compatible with various charging devices
- Unique LED light, flexible at low-light or dark environment
- OTDR partner, ideal tool for field technicians

Applications

- 5G optical network construction and maintenance
- Data center
- High reliability fiber connection
- Laboratory and manufacturing test

Lightweight and portable, easy to use

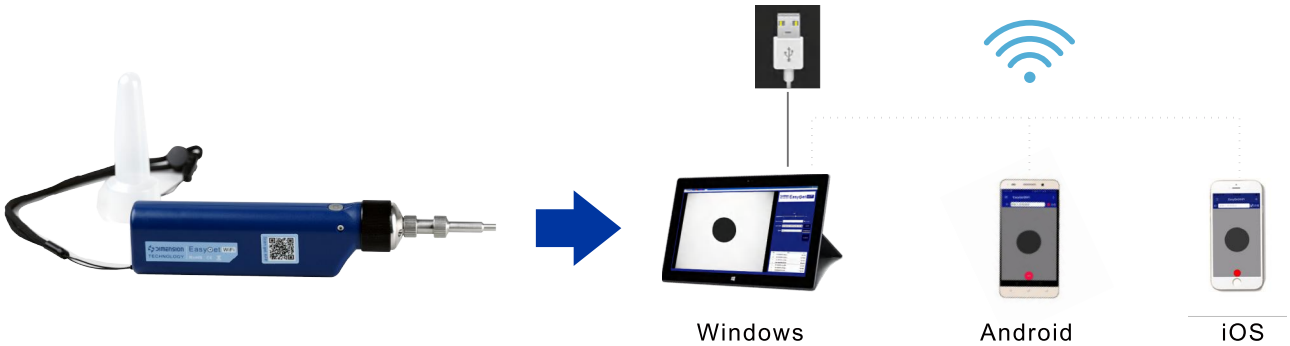
EasyGet Wifi is lightweight, portable, and durable. One-hand operation and slim body design enables the inspection for the most complicated scenarios.The unique surround focus ring and image capture button, makes the fiber endface inspection more easier.

Wifi Data Transfer

EasyGet Wifi can transfer images to all kinds of intelligent terminal equipments, with automatic analysis function, are convenient for users to online view, automatic inspection and automatic storage of data and reports on the end state of optical fiber, which is convenient and flexible.

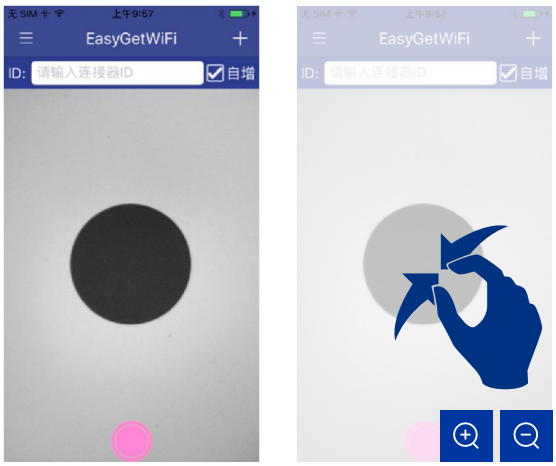
Wide OS Compatibility

EasyGet Wifi software is widely adaptable and can be used on PCs and various mobile devices with mainstream operating systems (Wins/Android/iOS). You can directly use the smart phone, laptop or tablet for convenient operation.
Scan the QR code on the body to download and install the EasyGet Wifi APP, and the software is available on main online markets. No special training is required and the installation is easy and convenient.



Intuitive interface, intelligent displays

EasyGet Wifi has the most user-friendly design, the interface is simple, intuitive and intelligent. In addition to viewing and recording function for the fiber endface status, users can pinch-zoom images, and rotate the screen per watching habits etc.



Universal USB Type C interface

EasyGet Wifi has a built-in rechargeable intelligent battery, duration up to 5 hours in a single operation. It also can be used while charging.

EasyGet Wifi is equipped with an universal USB Type C charging interface, which is compatible with various charging devices, such as PC's USB interface, power bank etc. Users no need to carry a dedicated charging device.

Unique LED lighting

EasyGet Wifi equipped with LED light, it can be easily used even in low-light or dark environments, bring Dimension customers with great convenience.

OTDR best partner

EasyGet Wifi is the best partner for OTDR, and the matching choice in fiber endface inspecting for field technicians.

Fiber endface inspection is the first step of OTDR test.

OTDR best partner

Rich adapter parts

EasyGet Wifi has more than 50 kinds of adapters, can meet user's different inspection needs, support MPO/MTP. Special adapter interface can be customed.

Specifications

Projects	Parameters
Resolution	0.42um
Image Sensor	Five million CMOS
Optical Magnification	10X
Particle Size Detection	<1um
Video Signal Format	MJPEG
Field of View	512um×384um
Focusing Mode	Manual
Signal Output	WiFi; USB Type C
Software Compatible	Android 4.2 /IOS 9.3/ PC Win7 or later version
Power Supply	Built-in Li-ion battery(chargeable & replaceable)
Life time	5 hours
Charge Time	2.5 hours
Charge Adapter	USB DC adaptor 5V/2A, including US,EU,UK,AU…adapters
Accessibility	With white LED environment lighting
Operating Temp	-5°C~ +40°C
Storage Temp	-20°C~ +55°C
Relative Humidity	<90%(Working/Storage)
Weight	188g
Dimensions	211mm×44mm×33mm

EasyGet2 Portable Fiber Endface Microscope

Easyget 2 is a portable type of fiber endface inspector developed by Dimension Technology. By magnifying 200~400 time of the objects, you can identity defects and scratches on the endface of connectors. It is your the best choice for endface inspection.Easyget comes along with portable 3.5 inch high resolution LCD monitor, it can work over 8 hours after recharge. There are also all kinds of tips which make Easyget to meet different requirements on inspecting.

Main Features

- Compact probe, portable monitor
- Focus ring, easy to operate
- High image quality
- Optional 200X,400X magnification
- Series of adaptor designed for connectors including MPO
- 8 hours durable after fully charged

Applications

- 5G optical network construction and maintenance
- Data centers
- High reliability fiber connections
- Laboratory and manufacturing tests

Longer Life, Better Image Quality

Anti-dust and anti-moisture design help EasyGet 2 maintaining good image quality and working for longer life time. The microscope is well protected to work even in harsh environment.

Stable and Durable Connection

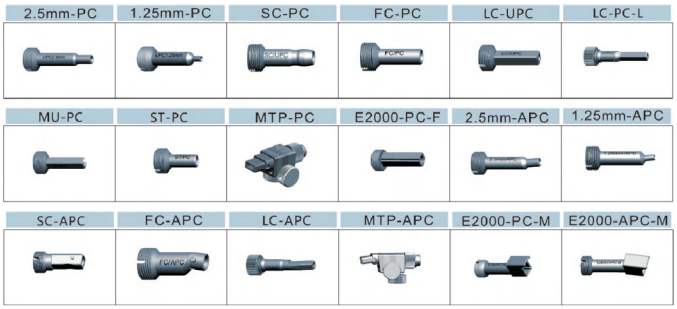
EasyGet 2 uses aviation electrical plugs to replace USB connector in previous version. Reliable electrical connection ensures the stable image quality in various working environment.

New Data Capture Card and Software

The new capture card is compatible for more operation systems and maintains the high image quality. The image capture software helps to display the video stream on PC screen. The tools kits to edit, save and upload are also provided to manage the inspection results. EasyGet 2 is able to connect to desktop monitor as well.

All Connector Inspection including MT

EasyGet 2 has equipped with various tips for ferrules, connectors, transceivers modules (SFP, QSFP) and optical components(TOSA/ROSA). MT/MPO adapters are designed for inspections on MPO and MTP connectors, 40G, 100G modules and so on. With long tips and ultra long tips, EasyGet 2 is suitable for maintaining high density data center of next generation.



Curved Adaptor for EasyGet 2

To meeting the demanding from inspection on ADSL modem, curved adaptor is designed for EasyGet 2. If you have new device to inspect, we are ready to support.

Compact and Portable

EasyGet2 is a handy tools for optical Fiber endface inspection on installation and maintenance. Hard shell case and soft case are optional.

Specifications

Item			Parameters		
Magnification			400X or 200X		
Output Format			PAL		
Power Consumption			3W		
Portable Monitor			3.5″ TFT		
Operation Temperature			-5°C~+40°C		
Storage Temperature			-20°C~+55°C		
Power Supply			Rechargeable 12V battery or DC IN		
Life time after charge			8h		
Size			Monitor: 205mm×94mm×25mm; Microscope: 23mm×160mm		
Model	**Display size of 125um fiber core at 8″ monitor**	**Range of sight at 8″ monitor**	**Display size of 125umfiber core at 3.5″ monitor**	**Range of sight at 3.5″ monitor**	**Resolution**
EasyGet 200	Φ44 mm	340.9~454.5um	Φ20 mm	312.5~425um	2.5um
EasyGet 400	Φ58 mm	258.6~344.8um	Φ26 mm	240~327um	1.5um

EasyGet Digital Portable Fiber Endface Microscope

EasyGet Digital portable digital endface Microscope adopts digital imaging solution and uses USB spring cable to connect the display device. It can be connected with EasyCheck V2 to easily inspect the endface of various female connectors, and it can also be connected to a PC to view fiber endfaces.

Main Features

- Digital imaging solution, clear image and low noise
- Lightweight and portable, easy to use
- The best companion for EasyCheck V2
- Rich adapter interfaces, complete functions

Applications

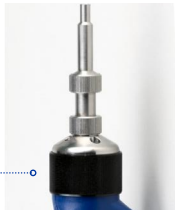
- 5G optical network construction and maintenance
- Data center
- Highly reliable optical fiber connection
- Laboratory and manufacturing testing

Digital imaging solution

EasyGet Digital adopts a digital imaging solution, compared with an analog imaging solution, the image is clear, the noise is low, the contrast of the endface defects is clearer.

Lightweight and portable, easy to use

EasyGet Digital is lightweight, portable, durable, one-handed control, easy to use. The unique surrounding focusing ring provides users with a simple and clear operating experience.



More applications with EasyCheck V2

EasyGet Digital can be connected with Dimension's EasyCheck V2 to easily inspect the endfaces of various female connectors.

Rich adapter interfaces

EasyGet Digital has more than 50 types of connector adapters, which can meet the various inspetion needs of users and support MPO/MTP. And the special connector detection interface can be customized.

Specifications

Item	Parameter
Resolution	0.42um
Image Sensor	500 million Pixel
Magnification	10X
Particle detection size	<1um
Video signal format	MJPEG
Display field of view	512um*384um
Focusing method	Manual
Signal output method	USB
Power supply	USB
Accessibility	With white LED ambient lighting
Operating temperature	-5°C~+40°C
Storage temperature	-20°C~+55°C
Relative humidity	<90%(Under working/storage temperature conditions)
weight	256g
Size	211mm×44mm×33mm

New fiber elbow adapter

- *70 degree elbow*
- *360 degrees rotate*
- *Compatible with all handheld devices*
- *Slim metal body*

In order to meet various requirements of fiber endface inspection, Dimension designed a variety of endface inspection adapters according to different types of fiber connector, different component structures and different application scenarios. With the further extension of the application of optical network technology, the traditional straight adapter can no longer meet the requirements of special application scenarios. In order to meet the requirements of fiber endface inspection in different structures and special application scenarios, a series of 70 degree elbow adapter were designed and published by Dimension. They are compatible with all Dimension handheld device, have a slim metal structure and can rotate 360 degrees, are flexible and easy to use, and can easily solve the inspection problem for special optical fiber connector, bringing unprecedented convenience to users.

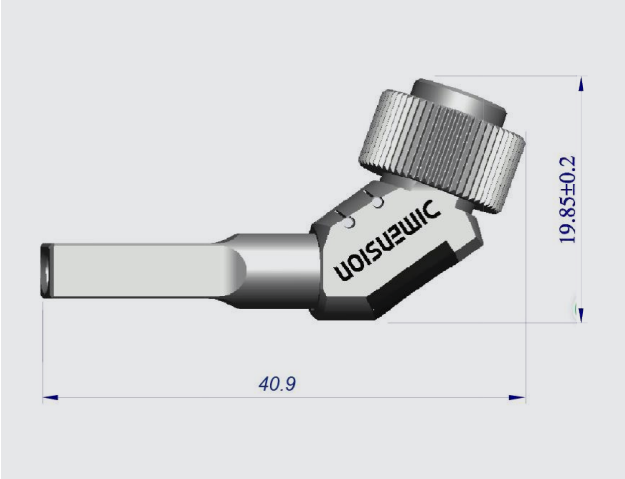
Main Features

- Exclusive 70 degree elbow adapter, accessibility to use
- 360 degrees rotate
- Slim metal body
- Compatible with all handheld devices

Applications

- Optical network equipment/device manufacturing
- Data center
- FTTx
- Optical network transmission center
- Enterprise network machine room

Slim metal body, 70 degree elbow, accessibility to use



360 degrees rotate, Convenient and flexible

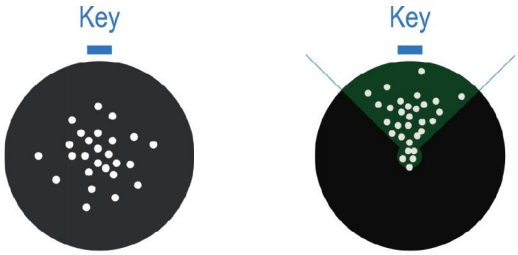
Excellent compatibility, serialization, easy to extend

Exclusive 70 degree elbow adapter compatible with Dimension all handheld device EASYGET, EASYGET WIFI, AUTOGET, AUTOGET WIFI. Users can select suitable elbow adapter according to their own needs to realize the inspection and analysis of optical fiber endface in some special scenarios.

Excellent coList of new fiber elbow adaptersmpatibility, serialization, easy to extend

Part Number	Connector Type	Product Image	Description	Connector Image
201910065	LC/UPC		LC Connector Tip, UPC ,70 Degrees	
201910063	LC/APC		LC Connector Tip, APC ,70 Degrees	
201910059	SC/UPC		SC Connector Tip, UPC ,70 Degrees	
201910061	SC/APC		SC Connector Tip, APC ,70 Degrees	

Fiber Connector Core Tuner S Tester



Before tune

After tune

Core Tuner is fiber optic connector concentricity testing and adjusting equipment developed by Dimension Technology based on many years of experience in instrument development.We developed two types of equipment— Core Tuner S (automatic) and Core Tuner (manual) to meet different requirements from customers. The instruments define new standards of concentricity machines. Superior image processing capabilities gives Core Tuner excellent performance—high numerical accuracy, repeatability. The systems are automatic, intelligent, easy to use with strong vibration resistance and durability.

Main Features

- High accuracy
- High repeatability
- Auto exposure
- Auto focus
- Auto mark KEY
- Can test APC connector,Easy to use
- Vibration resistance

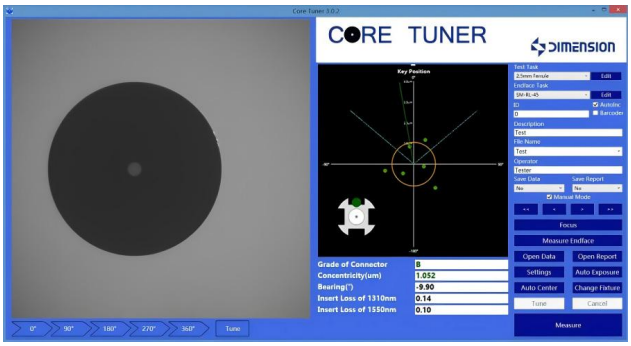
Applications

- Used for fiber core endface inspection and concentricity adjustment during polishing and assembly

Function Introduction

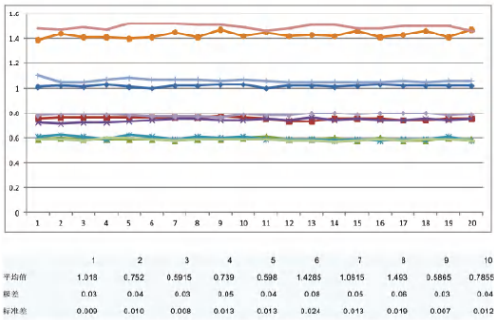
Fiber connector has loss in data-link due to many causes, such as horizontal mismatch, vertical mismatch and axial mismatch.The main cause of insert loss is horizontal mismatch. The mismatch between two fiber cores will cause large insert loss .

Bare fiber core testing diagram



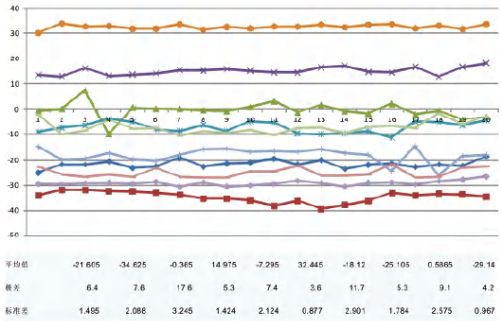
High Accuracy, High Repeatability

Here are 10 PCS tested pieces of charts and data, using 100000 times fixture repeat test after aging 20 times of the test data.



	1	2	3	4	5	6	7	8	9	10
平均值	1.318	0.752	0.5915	0.739	0.598	1.4285	1.0515	1.403	0.5865	0.7855
极差	0.03	0.04	0.03	0.05	0.04	0.08	0.05	0.06	0.03	0.04
标准差	0.009	0.010	0.008	0.013	0.013	0.024	0.013	0.019	0.007	0.012

Concentricity

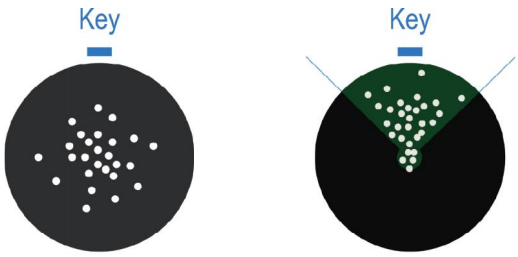


	1	2	3	4	5	6	7	8	9	10
平均值	-21.605	-34.625	-0.365	14.975	-7.295	32.445	-18.12	-25.105	0.5865	-29.14
极差	6.4	7.6	17.6	5.3	7.4	3.6	11.7	5.3	9.1	4.2
标准差	1.495	2.088	3.245	1.424	2.124	0.877	2.901	1.784	2.575	0.967

Angle

Powerful Testing Function

Core Tuner not only can measure the optical fiber connector after assembly concentricity, can also test of optical fiber connector assembly concentricity, and adjust the fiber Core of deviation Angle, labeled assembly position, so as to reduce the wastage of the optical fiber connector, the connector of the overall quality improved greatly. Core Tuner tuning right at the same time can also detect naked insert Core concentricity, as well as the single Core insert Core, connectors, face detection.



Before tune After tune

Auto Mark Key

Core Tuner S at 2.5 mm / 1.25 mm Ferrule measurement mode, the single test task is completed, the hardware automatic adjust the Angle of Bearing to the required range, at the same time the software Interface indicates KEY position, convenient for the subsequent assembly work.

Can Test APC Connector

CORE TUNER not can ditect PC connectors,but also can detect APC connectors with out replacing fixture.

Specifications

Item	CORE TUNER S
Rotate way	0.52um
Test Speed	4s
Concentricity Repeatability	±0.08um
Bearing angle Repeatability	±5°
Focus	Auto
Image Brightness	Auto
Applications	PC & APC 1.25mm ferrule & connector PC & APC 2.5mm ferrule & connector
Operating temperature	-10°C~-55°C
Storage temperature	-20°C~-60°C
Power supply	DC 24V
Size (HXWXD)	270mm×150mm×112mm

Optical Probe An excellent equipment in optical measurement

With the rapid development of optical fiber communication technology, optical fiber communication has become the main transmission mode of various communication networks. DIMENSION optical probe integrates OPM (optical power meter), VFL (visual fault locator), RJ45 cable tracker and sequence test and other functions. The optical probe is easy-to-use, and it can easily handle with the construction of various communication networks and different test scenarios. Thanks to the unique probe-type and non-contact universal interface design, field engineers do not need to carry a wide variety of other fiber patch cords, all tests can be completed with one optical probe.

Main Features

- Non-contact and probe power test
- No extra patch cords required
- Ultra-fast power ON, always ready for use
- Integrated with visual fault locator
- Support RJ45 cable sequence test
- Unique LED lighting
- Compatible with USB transfer, allowing to save data to PC

Applications

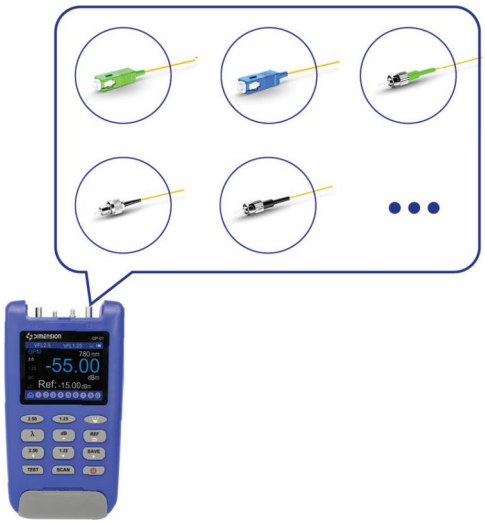
- Optical fiber network installation and maintenance
- Optical fiber communication teaching and research
- FTTX network installation

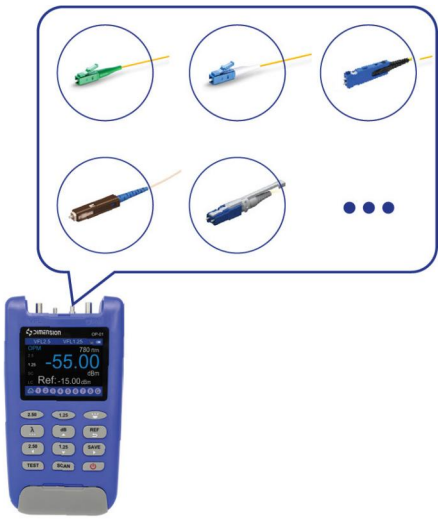
Non-contact and probe power test

The Optical Probe equipment uses non-contact probe power detection. It can be tested without touching ports or cables to reduce the risk of fiber contamination or damage.

No extra patch cords required

In order to adapt to all common test scenarios on the market, the optical probe integrates 2.5mm universal adapter, 1.25mm universal adapter, SC probe-type adapter and LC probe-type adapter. When need to complete measurement tasks at various levels and different fiber connectors/bulkheads are used, the user doesn't need to carry extra conversion patch cords.





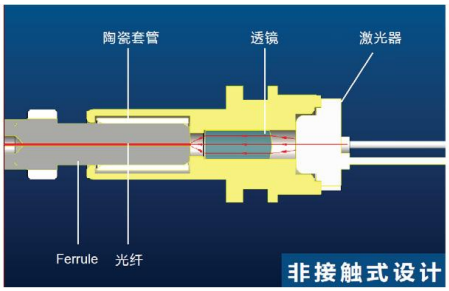
Ultra-fast power ON, always ready for use

The optical probe can be turned ON ultra-fast, having an intuitive graphical user interface for direct access to test functions. From shutdown to restart, the overall time does not exceed 0.8s.

Integrated with visual fault locator

The optical probe is equipped with 2.5mm and 1.25mm non-contact red light output ports. The non-contact design will not damage the end face due to plugging and unplugging, and the design of 2.5mm and 1.25mm red light output ports is suitable for most application scenarios. The device has two modes of emitting optical signals (continuous, flashing) to identify fibers, breaks, and macro-bends.

识别光纤、断裂、宏弯



2.5非接触式红光输出口

1.25非接触式红光输出口

Support RJ45 line sequence function

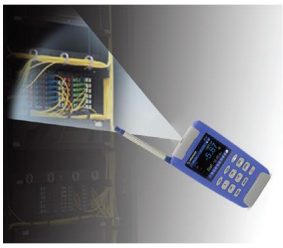
The users can discover the current line sequence arrangement of network lines through orderly signal transmission, verifying that the line sequence is correct or not through the device to complete the network installation.

Support RJ45 line tracking function

In a complex field environment, it is difficult to determine the head and tail of a wire. The optical probe integrates RJ45 line tracking function. User can plug one end of the network line into the OP-01, and use the receiver to find the other end of the network line.

Unique LED lighting

In order to meet the needs of use in the field environment with insufficient light and bring a convenient experience to users, the optical probe has added LED lights to both the main device and the receiver, which can be turned ON by pressing.



Compatible with USB transfer, allowing to save data to PC

The optical probe allows to store maximum 1000 measurement results, which can be saved to PC via USB.

Specifications

OPM*		
Fiber adapter	2.5mm and 1.25mm universal adapters	LC, SC Folding probes
Detector type	InGaAs	
Wavelength range	780nm~1650nm	
Power range	+6~-70dBm(Typ.)	+6~-55dBm(Typ.)
Maximum input power meter	+ 13dBm	
Linearity	±0.5dB(+5~-60dBm)	±0.5dB(+5~-50dBm)
Repeatability	±0.05dB	±1.00dB
Uncertainty	±（5%+500pW）	
Test type	dBm、dB、mW、uW、nW	
Display resolution	0.01dB	
Return loss	>55dB	
Test result storage	1000	
Fiber type	SM/MM	
VFL		
Wavelength	650nm±30nm	
Output power	≥1mW	
Fiber adapter	2.5mm and 1.25mm universal adapters	
Laser safety	Class 3R (Complies with IEC 60825-1:2014-05)	
Power Supply		
Power supply	Built-in Li-ion battery (chargeable)	
Battery life	＞8h	

*It is necessary to control the variables of test conditions to ensure the consistency of test conditionsinterfaces

OTDR Optical time domain reflectometer

- **M** *Multi-function*
- **E** *Extension*
- **S** *Simple*
- **L** *Light*
- **I** *Intellectualization*
- **A** *Adaptability*
- **P** *Portable*
- **S** *Small*

The multi-functional OTDR optical fiber tester of Dimension Technology can help field technicians reliably and cost effectively install, open, troubleshoot and monitor any optical network architecture. It uses OTDR test module + γ architecture of handheld general test platform, and it integrates OTDR, visual fault location, optical power meter, light source and other applications. It can also expand the end face detection function, realize multi pulse width test + automatic analysis, and has powerful functions to measure the length, loss, connection quality and other parameters of various optical fibers. This series of products, based on the design of Android tablet computer, adopts 5.5-inch color touch screen, which can realize the dual operation of key and touch; At the same time, it also has a variety of connection modes, which can be extended and connected to other test modules and handheld devices of Dimension Technology through high-speed connector interface, WiFi, USB, etc. Or it controlled by PC, with good expansibility and ease of use; Solid and reliable quality is also the consistent adherence of Dimension Technology. This series of OTDR has anti drop design and high reliability, and has become a good tool for various types of on-site optical fiber monitoring.

Main Features

- Multifunctional
- Platform and modular design
- Intellectualization
- Extension
- Small and portable, light weight, one hand operation
- Fault inspection of communication system at all levels
- Automatic / manual OTDR mode: multi pulse width test + automatic analysis
- High speed test, accurate results and high repeatability
- Simple operation, no training, easy to start
- Long battery life, unique replaceable smart battery
- Adapt to a variety of environments

Applications

- LAN/WAN network
- Metropolitan area network
- FTTx network
- Date center
- Optical teaching and research
- Fiber/optical cable product and use
- Access network
- Enterprise network

Multifunctional

Platform and modular design

Dimension γ architecture of handheld general test platform provides a complete set of on-site optical test solutions. It can be compatible with a variety of field optical test modules including OTDR through high-speed connector interface, WiFi, USB and other ways, with strong scalability and easy maintenance and management.
Customers can purchase other test modules and handheld devices for function expansion to realize one-stop measurement.

Intellectualization

The OTDR of this series is based on Android system. It has rich application support of Android system. Through the application development and excellent UI design of Dimension Technology, users can become more intelligent and humanized in the process of use, and easily complete various complex optical tests. Besides, it also has a task sending and receiving function to complete a remote work arrangement and report.

Extension

The OTDR can be perfectly integrated into the product ecological chain of Dimension Technology. It can communicate through WiFi or USB, use Dimension's app to control other test equipment and become a main device. Besides, It can also be controlled by other main devices through WiFi or USB to become a test module in a test system.

Small and portable, light weight, one hand operation

Thanks to the excellent ergonomic design and small and portable body shape of Dimension Technology, it can be carried in different ways, young and fashionable. In operation, just press the shortcut key to complete the test, and the data can be automatically analyzed and saved. It only need a little training, novice can also complete the communication fault inspection.

Shoulder carrying

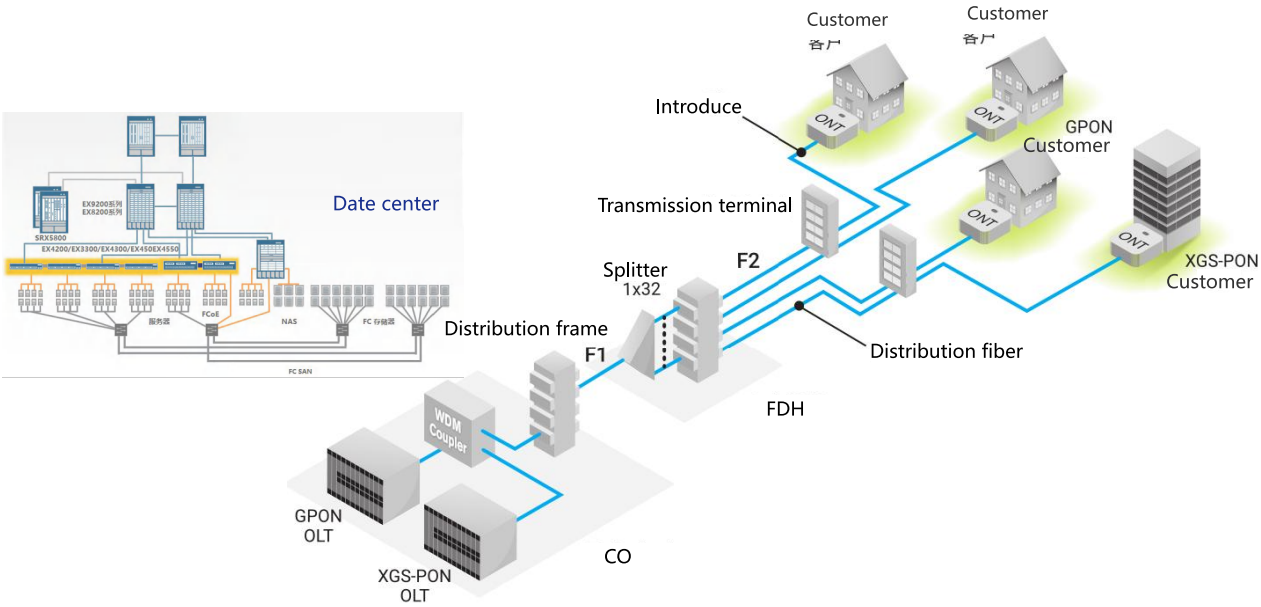
Single shoulder carrying

Carry with one hand

Test with one hand

Fault inspection of communication system at all levels

It integrates OTDR, visual fault location, optical power meter, light source and other applications. Construction and fault inspection of communication system at all levels.



Automatic / manual OTDR mode

Automatic / manual OTDR mode: multi pulse width test + automatic analysis.Automatic mode is simple and convenient without inputtingthe parameters of the system to be tested.
OTDR makes a judgment by sending pulses with different bandwidth and obtains an accurate data.Manual mode is to input the parameters of the system to be tested, and then conduct an accurate positioning test, which is efficient and accurate.

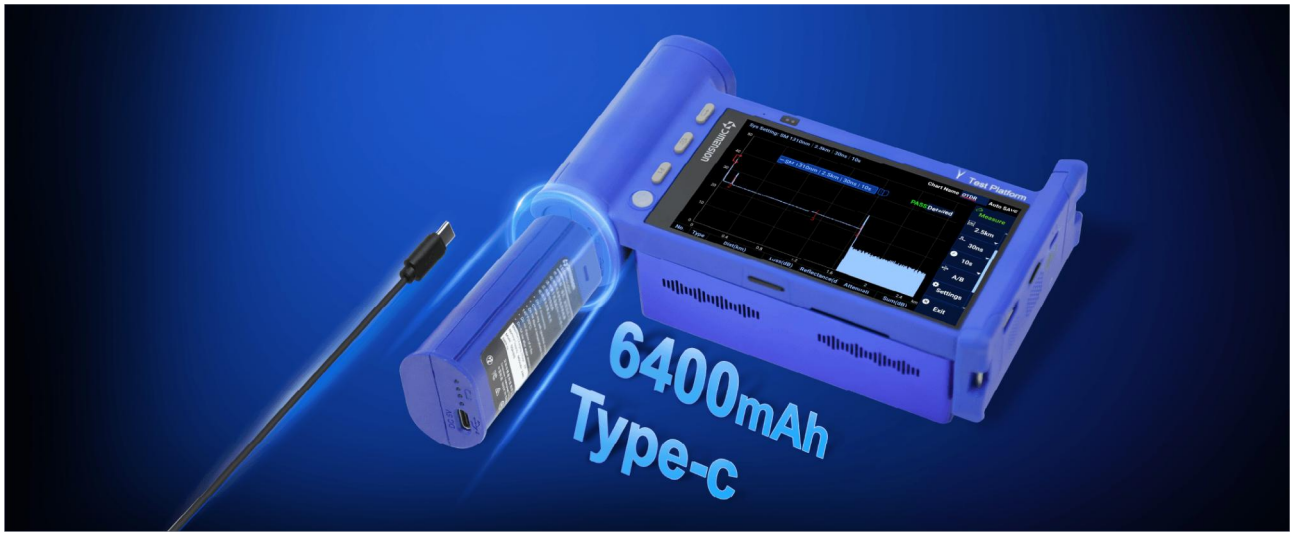
High speed test, accurate results and high repeatability

Each OTDR of Dimension technology has been specially calibrated by engineers, with fast test speed, accurate results and high test repeatability. It avoid repeated measurements due to inaccurate tests, creating a high-efficiency environment for you.

Event	Times	Location / length (km)	IL（dB）	Reflectivity（dB）	Total（dB）
Fusion Point 1	1	0.1085	0.229	-50.2	0.300
	2	0.1083	0.236	-50.2	0.307
	3	0.1087	0.237	-50.3	0.308
	4	0.1085	0.236	-50.4	0.307
	5	0.1084	0.231	-50.1	0.302
Fusion Point 2	1	1.1194	0.198		0.827
	2	1.1192	0.205		0.835
	3	1.1195	0.203		0.836
	4	1.1196	0.197		0.833
	5	1.1194	0.201		0.833
The End	1	1.6305	-	>-28.7	0.971
	2	1.6302	-	>-28.4	0.970
	3	1.6303	-	>-28.7	0.974
	4	1.6305	-	>-28.5	0.968
	5	1.6307	-	>-28.4	0.973

Long battery life, unique replaceable smart battery

The whole series of OTDR of dimension technology adopts replaceable high-capacity intelligent batteries. The battery can be charged independently, with a life time of up to 8 hours; The battery can be replaced at any time, So that you can work without worrying about power problems.



Adapt to a variety of environments

In order to cope with different scenarios and testers of different occupations, Dimension technology has made specially improvements for the reliability of such test equipment, making the use of equipment more flexible and applicable.

Detector Adapters Selection Guide

Each OTDR of Dimension technology has been specially calibrated by engineers, with fast test speed, accurate results and high test repeatability. It avoid repeated measurements due to inaccurate tests, creating a high-efficiency environment for you.

Number	PN	Name	Description	Image
1	204710021	OTDR FC fast adapter	Light source interface, suitable for FC connector	
2	204710022	OTDR SC fast adapter	Light source interface, suitable for SC connector	
3	204810002	OPM FC adapter	Detection interface, suitable for FC connector	
4	204810003	OPM SC adapter	Detection interface, suitable for SC connector	
5	204810004	OPM LC adapter	Detection interface, suitable for LC connector	
6	204810007	OPM 2.5 ferrule adapter	Detection interface, suitable for FC/SC/ST connector and 2.5mm ferrule	
7	204810006	OPM 1.25 ferrule adapter	Detection interface, suitable for LC/duplex LC /SN connector and 1.25mm ferrule	

Specification

Each OTDR of Dimension technology has been specially calibrated by engineers, with fast test speed, accurate results and high test repeatability. It avoid repeated measurements due to inaccurate tests, creating a high-efficiency environment for you.

OTDR					
Type	OT-100-2132-PV #1310/1550	OT-100-2136-PV #1310/1550	OT-100-1134-XX #1650	OT-100-3136-PV #1310/1550/1650	OT-100-2224-PV #850/1300
Wavelength (nm)	1310/1550	1310/1550	1650(filtered)	1310/1550/1650	850/1300
Dynamic range (dB)	32/30	36/34	34	36/34/34	24/22
Pulse width (ns)	3/5/10/30/50/100/275/500/1000/2500/10000/20000				3/5/10/30/50/100/275/500/1000/2500
Event dead zone (m)	0.75				2
Attenuation dead zone (m)	3.5				10
Linearity (dB / dB)	±0.03				
Loss resolution (dB)	0.001				
Ranging resolution (m)	0.001				
Ranging accuracy (m)	±(0.75 + 0.005 % x distance + sampling resolution)				
Distance range(km)	0.1~180	0.1~240	0.1~240	0.1~240	0.1~5
Data format	SOR/PDF/HTML				
Laser Source					
Wavelength(nm)	1310/1550	1310/1550	N/A	1310/1550/1650	850/1300
Laser type	FP-LD				
Output power(dBm)	-20				-40
OPM (Options)					
Wavelength range (nm)	800nm~1700nm				
Measuring range (dBm)	-50~+10				
Measurement uncertainty	±5%				
Calibration wavelength (nm)	850/1300/1310/1490/1550/1625/1650				
Connector type	FC				
VFL (Options)					
Wavelength(nm)	630nm~670nm				
Working mode	CW/1Hz				
Output power(mW)	>1				
Connector type	FC				
General Parameter					
Memory capacity	16G(Extensible)				
Monitor type	5.5-inch IPS HD Display				
Power supply	Lithium battery:5V,6400mAh				
Operating temperature（°C）	10~40				
Storage temperature（°C）	-40~70				
Humidity	0 % to 95 %(Non-condensing)				
Weight（kg）	<1.150				
Dimension（mm）	200*110*65				

Note:
[1] All specifications are applicable at a temperature of 23 °C ± 1 °C
[2] Deadzone test conditions: SM1550/3ns/0.65km/60s; The event reflection coefficient is -45 ± 2dB

Ordering information

OT-100 Single fiber single&multi mode series OTDR

OT-100 — [ ] [ ] [ ][ ] — [ ] [ ] — [ ][ ] # [ ]

Number of wavelengths	
1	One wavelengths
2	Two wavelengths
3	Three wavelengths

SM/MM	
1	Single mode
2	Multi mode

Dynamic range	
24	24dB(MM 850)
32	32dB(SM 1310)
36	36dB(SM 1310)
40	40dB(SM 1310)
45	45dB(SM 1310)

OPM options	
X	None
P	Equipped

VFL options	
X	None
V	Equipped

Connector Type	
FP	FC/PC(MM)
FA	FC/APC(SM)
SP	SC/PC(MM)
SA	SC/APC(SM)
XX	Others

Optional wavelength
1310(SM)
1550(SM)
1625(SM)
1650(SM)
850(MM)
1300 (MM)

Example:
Model:
OT-100-2132-PV-FP # 1310/1550
OTDR dual wavelengths single mode, 32dB dynamic range, with OPM, with VFL, FC/PC adapter, wavelengths 1310 and 1550

OT-200 Multifiber MPO Optical Time Domain Reflectometer

In high-density cabling scenarios such as FTTX, data centers, and enterprise networks, the application of MPO/MTP is becoming increasingly widespread, emerging as an important trend in the development of optical communication. With the rapid growth of market demand, how to efficiently deploy MPO cables has become a key issue that the industry urgently needs to address.

Dimension's OT-200 series combines multi-core optical switches with OTDR and independently develops and manufactures a device that is specifically optimized for the requirements of multi-core high-density deployment and is suitable for various application scenarios of optical fiber links. This device supports one-stop fault diagnosis of multi-core optical fibers, covering up to 24-core optical fibers at most. It completely replaces the traditional method of "manually switching the optical path and testing as many times as there are cores", significantly improving the deployment efficiency, and at the same time greatly reducing the operation and maintenance difficulty for technicians.

Main Features

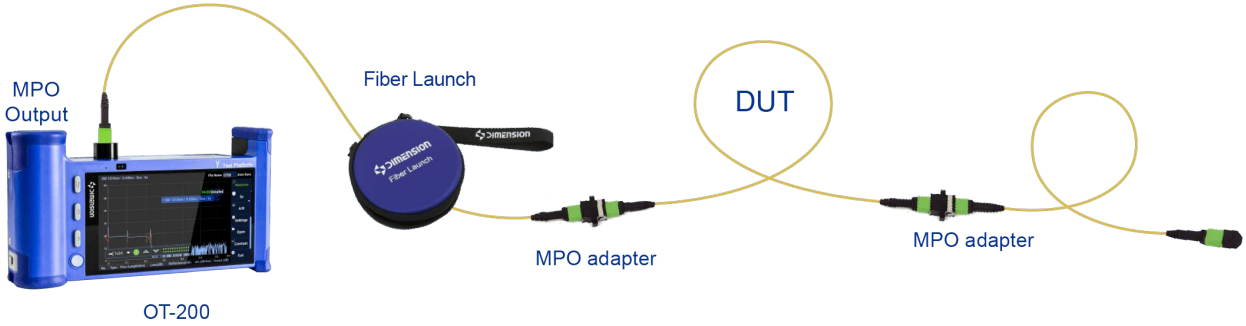
- One-click testing with automatic switching (supports up to 24 fibers).
- Users can customize the test channels.
- Platform-plus-modular design.
- Integrate multiple functions into one device.
- Intelligently display data in a graphical way.
- The MPO adapter comes with a built-in dust-proof design
- Small and portable, light in weight, and can be operated with one hand.
- Ultra-long battery life. With a unique replaceable smart battery.
- Single-mode and multi-mode fiber types can be selectable.

Applications

- Deployment of fiber-optic densely integrated projects such as data centers.
- Construction of MPO optical fiber cables for enterprise networks and central networks.
- Fault diagnosis of multi - core optical fiber links.

One-click testing, and the device can automatically switch channels (up to 24 cores).

This device supports one-stop fault diagnosis for multi-core optical fibers, covering up to 24-core optical fibers at most. It completely replaces the traditional method of "manually switching the optical path and conducting measurements as many times as the number of cores". This significantly improves the deployment efficiency and greatly reduces the operation and maintenance difficulty for technicians.



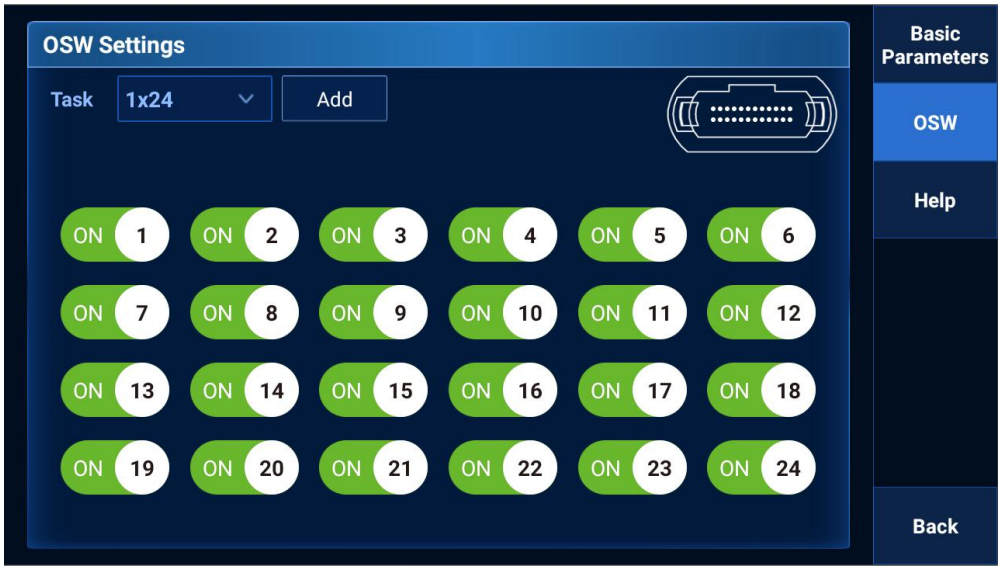
Users can customize the test channels

The OT-200 series can not only complete the relevant analysis of the basic MPO full-channel OTDR link, but also directly use the optical switch to control the multi-core link to specify the light output of the channel. The software has also been specifically designed in terms of the UI interface. In the upper right corner, the visualization of the current link is achieved by imitating the front view of the MPO end face, which improves the user's testing efficiency.

Multifunctional

Intelligently display data in a graphical way

The intelligent display of data visualizes the situation of the fiber cores of the currently preset tasks, and uses colors to remind users of the actual situation of each optical fiber link.

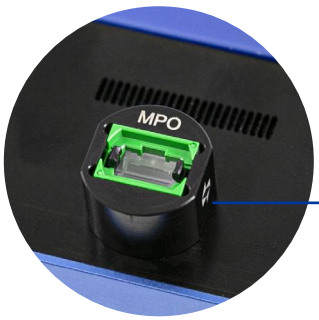


Optional single-mode and multi-mode fiber types

The OT-200 series optical switches support optional single-mode and multi-mode fiber types, meeting testing requirements in various environments.

The MPO adapter comes with a built-in dust-proof design

The adapter on the OT-200 device has a built-in dust-proof design, which effectively prevents the port from being contaminated or damaged when it is not in use.



built-in dust-proof design

Small and portable, light weight, one hand operation

Thanks to the excellent ergonomic design and small and portable body shape of Dimension Technology, it can be carried in different ways, young and fashionable. In operation, just press the shortcut key to complete the test, and the data can be automatically analyzed and saved. It only need a little training, novice can also complete the communication fault inspection.

Shoulder carrying

Single shoulder carrying

Carry with one hand

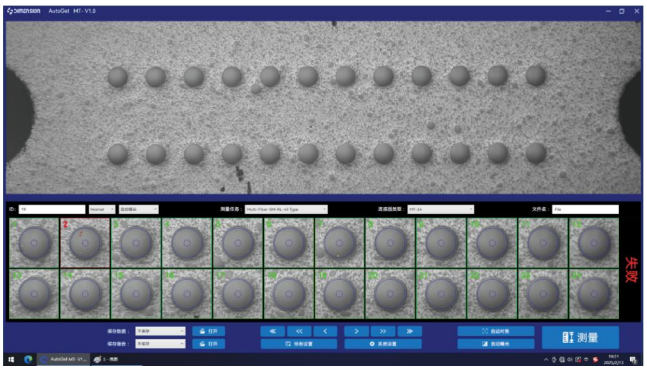
Test with one hand

Extension

The OTDR can be perfectly integrated into the product ecological chain of Dimension Technology. It can communicate through WiFi or USB, use Dimension's app to control other test equipment and become a main device. Besides, It can also be controlled by other main devices through WiFi or USB to become a test module in a test system.

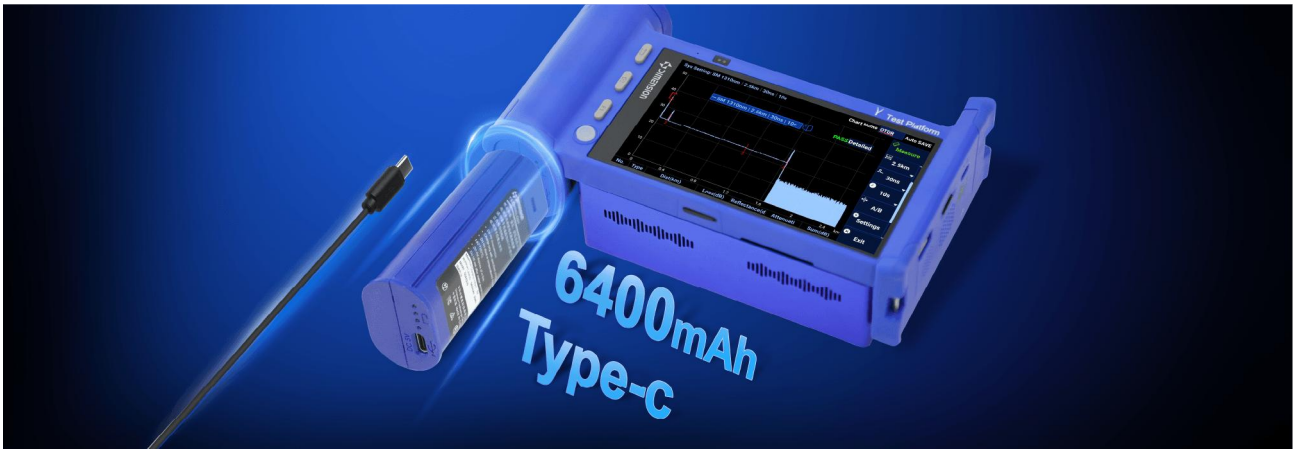
The OTDR is modular and supports programmable control via USB and RJ45 communication interfaces.

Establishes communication via USB toconnect with related ecosystem products



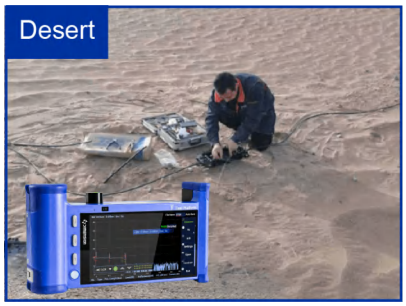
Long battery life, unique replaceable smart battery

The whole series of OTDR of dimension technology adopts replaceable high-capacity intelligent batteries. The battery can be charged independently, with a life time of up to 8 hours; The battery can be replaced at any time, So that you can work without worrying about power problems.



Adapt to a variety of environments

In order to cope with different scenarios and testers of different occupations, Dimension technology has made specially improvements for the reliability of such test equipment, making the use of equipment more flexible and applicable.



Specification

Product name	EasyCleaner-3	
Type	OT-200-2134-XX-MAF#1310/1550-12	OT-200-2222-XX-MAF#850/1300-12
Wavelength(nm)	1310/1550	850/1300
Dynamic range(dB)	34/32	22/22
Pulse width(ns)	3/5/10/30/50/100/275/500/1000/2500/10000/20000	3/5/10/30/50/100/275/500/1000/2500
Event dead zone(m)	0.75(2)	2(3)
Attenuation dead zone(m)	3.5(2)	10(3)
Linearity(dB/dB)	±0.03	
Loss resolution(dB)	0.001	
Ranging resolution(km)	0.0001	
Ranging accuracy(m)	±(0.75+ 0.005 % x distance + sampling resolution)	
Distance range(km)	0.1~120(4)	0.1~8(6)
Data format	SOR/PDF/HTML	

Optical Switch		
Switch Type	MEMS	
Wavelength(nm)	1310/1550	850/1300
Channel crosstalk(dB)	>50	22/22
Switch time	$>10^9$	
General Parameter		
Attenuation dead zone(m)	16G(Extensible)	
Linearity(dB/dB)	5.5-inch IPS HD display	
Loss resolution(dB)	Lithium battery:5V,6400mAh	
Ranging resolution(km)	10 ~ 40	
Ranging accuracy(m)	–40 ~ 70	
Distance range(km)	0 % to 95 %(Non-condensing)	
Data format	SOR/PDF/HTML	
Weight(kg)	<1.3	
Dimension(mm)	200*110*65	

Note:
[1] All specifications are applicable at a temperature of 23 °C ± 1 °C
[2] SM Deadzone test conditions: SM1550/3ns/0.65km/180s; The event reflection coefficient is -45 ± 2dB
[3] MM Deadzone test conditions: MM1300/3ns/0.65km/180s ; The event reflection coefficient is -45 ± 2dB
[4] SM distance testing conditions: SM1550/20μs/260km/180s; The event is a whole roll of optical fiber, with no other events.
[5] MM distance testing conditions: MM1300/2.5μs/20km/180s; The event is a whole roll of optical fiber, with no other events.

Ordering information

OT-200 — [ ] [ ] [ ] —XX— [ ] # [ ] — [ ]

Number of wavelengths	
1	One wavelengths
2	Two wavelengths

SM/MM	
1	Single mode
2	Multi mode

Dynamic range	
22	22dB(MM 850)
34	34dB(SM 1310)

Connector Type	
MAF	MPO/APC/Female

Optional wavelength
1310(SM)
1550(SM)
1625(SM)
1650(SM)
850 (MM)
1300(MM)

Channel	
12	12CH
16	16CH
24	24CH

Example:
Model:OT-200-2134-XX-MAF#1310/1550-12
12F OTDR, two wavelength 1310/1550,34dB dynamic range,MPO/APC/Female connector

EasyCleaner-3
Optical fiber connector cleaner

The EasyCleaner-3 series of optical connector cleaners are specially developed for optical connectors. They do not require cleaning solution and are easy to carry. With just a gentle press, dirt on the fiber end face can be removed, which can quickly and efficiently improve the reliability of communication services.

Main Features

- Small size, with a lifespan of 1000+
- High performance cleaning of dirt
- Convenient to carry and use features

Applications

- Clean the fiber optic connector

Small size, with a lifespan of 1000+

Adopting a transparent shell with compact size, the remaining amount can be observed at any time, and the maximum cleaning time exceeds 1000 times.

High performance cleaning of dirt

Adopting high-performance cleaning lines. Accurately and efficiently clean grease and dust on the end face of the connector.
The main body adopts anti-static grade materials to prevent dust from reattaching caused by static electricity.

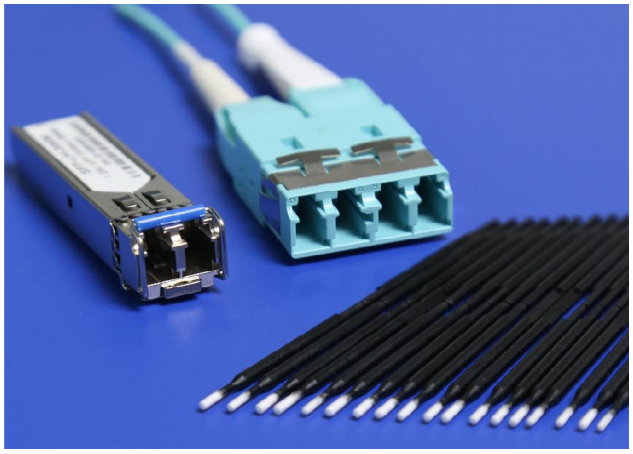
Convenient to carry and use features

Design a dust cap and connect it to the cleaning pen with a strap. When not using the cleaning pen, cover it with a dust cap. When using the cleaning pen, use a rope to prevent it from falling.

Specifications

Product name	EasyCleaner-3	
Model	EC-3-125	EC-3-250
Applicable connectors	LC,MU	SC,FC,ST,E2000
Applicable end face	PC,APC	
Size(mm)	163(L) x 22(H) x 15(W) mm	
Weight(g)	Approx. 20g	
Standard usage times	More than 1000 times	

EASYSTICK Fiber Cleaning Cotton Stick



EASYSTICK is a high-performance and cost-effective fiber cleaning tool specially designed for cleaning the endfaces of optical devices, transceivers, and flanges. It adopts a unique design, which can clean the inner wall of the ceramic sleeve while cleaning the fiber endface.

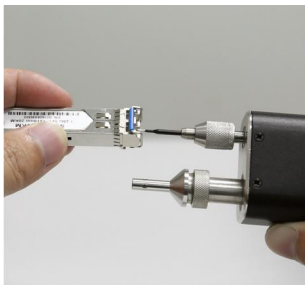
Main Features

- Efficiently clean all kinds of stains on the endface and the inner wall of the ceramic sleeve
- Clean endface of the 1.25mm and 2.5mm optical port and inner wall of the ceramic sleeve
- Easy to operate without secondary pollution
- Strong cleaning ability, only need a single cleaning

Applications

- Optical devices manufacturers and research institutes
- Maintenance of optical network installation and operation
- Equipped with OFFSOON Mark cleaning machine to automatically wipe the internal end surface of the optical device

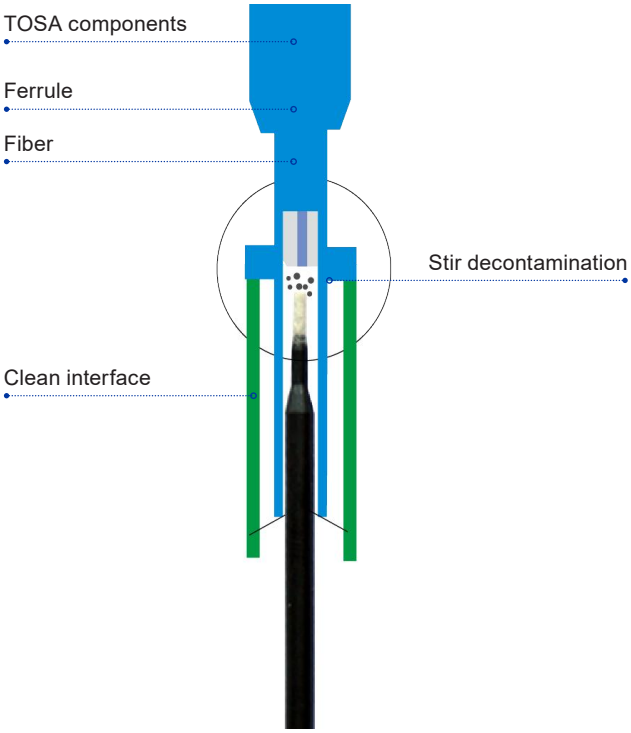
Used with cleaning machine



Inner Diameter

Inner Diameter

Before After

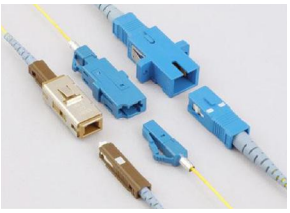


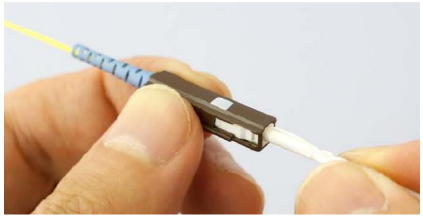
OPTIPOP® SERIES Optical Connector Cleaner Lineup

Many of the troubles in optical communication facilities are caused by contamination on the optical connector end face. By means of their microfibers developed specifically for optical connectors, the OPTIPOP Series optical connector cleaners remove even the smallest dirt invisible to the naked eye. We invite you to take advantage of the increased construction work efficiency and higher transmission service reliability this series can provide.

Applications

- Connector cleaning





POINT1 Removes dirt you can't even see without scratching the end faceBecause they use pure sterile microfibers, they remove dirt without scratching the ultra-fine core of the optical fiber.

POINT2 Compact design with workability in mind

Designed in response to the voices of actual on site workers, they show improvement in both excellent portability and working efficiency.

POINT3 No cleaning solution required means they are friendly to the environment1

In consideration of the health of workers and the surrounding environment, there is no need for any cleaning fluids such as organic alcohol, etc.

Specifications

Type	ATC-RE-01	ATC-RE-02	ATC-RE-03	ATC-RE-04
Cassette Grip Type	single core	multi-core	single core	single core
Number of Uses	over 400 times			
Compatible Connectors	SC, MU,SC2, LC,FC,MT,ST, MPO	SC, MU,SC2, LC,FC,ST	MT, MPO (with pin)	MT-RJ (with pin)
Size(mm)	W:124 × D:35 × H:83			
Model	ATC-RS-01 6 rolls/set			

Type			
Packing Specifications	Replacement card (100 sheets/set)	Ø1.25mm	Ø2.5mm
Number of Uses	12 times/sheet – 12 sheets		
Size(mm)	W: 57×H:120×D:16		
Model	ATC-CS-01 6 rolls/set		

Notes:

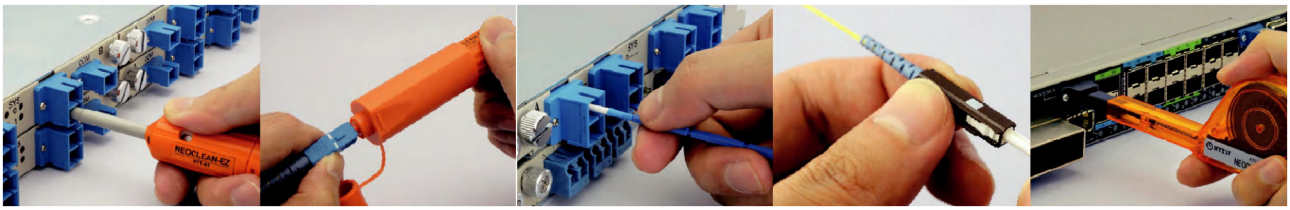
* OPTIPOP are registered trademarks of NTT Advanced Technology Corporation.
* Any other Company Names, product names, etc. recorded herein are trademarks or registered trademarks of the specified companies.
* Please understand that the contents recorded herein may be subject to change without notification.
* Catalog contents from October, 2013 to present.

NEOCLEAN™ SERIES
Optical Connector Cleaner Lineup

Many of the troubles in optical communication facilities are caused by contamination on the optical connector end face. By means of their microfibers developed specifically for optical connectors, the NEOCLEAN Series optical connector cleaners remove even the smallest dirt invisible to the naked eye. We invite you to take advantage of the increased construction work efficiency and higher transmission service reliability this series can provide.

Applications

- Clean the fiber optic connector



POINT1 Removes dirt you can't even see without scratching the end face

Because they use pure sterile microfibers, they remove dirt without scratching the ultra-fine core of the optical fiber.

POINT2 Compact design with workability in mind

Designed in response to the voices of actual on site workers, they show improvement in both excellent portability and working efficiency.

POINT3 Replacement cartridge system brings excellence in running cost management

NEOCLEAN-E uses a replacement system for consumables, greatly reducing running costs.

NEOCLEAN®-M

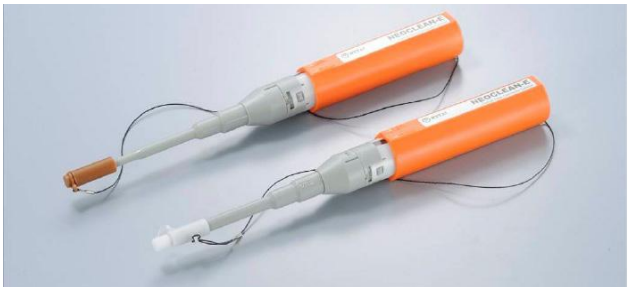
With just one click, the MPO connector can be cleaned immediately. Many problems in fiber optic communication equipment are caused by dirt on the endface of the fiber optic connector. The MPO/MTP connector cleaner NEOCLEAN-M uses microfibers specially designed for optical fiber connectors, and can remove the smallest dirt that is invisible to the eyes. Please use it to improve the efficiency of optical structure work and the reliability of communication services.

NEOCLEAN®-EZ pen

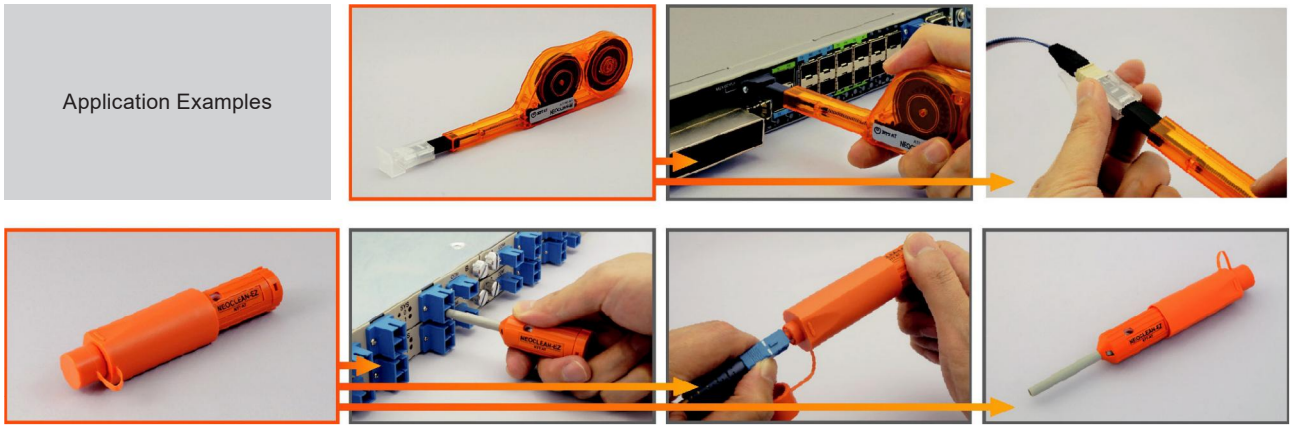
With just one click, you can clean the endface of the metal ring of the fiber connector. Especially the compact body designed to clean the narrow space of the fiber optic connector port. Fix the attachment at the rear end so that you can also clean the deep recesses of the fiber ports. Just remove the front cover, you can clean the optical plug.

NEOCLEAN®-E pen type

Just click to clean the endface of the metal ring in the device adapter. The cleaning box can be replaced, and each box can be cleaned about 750 times, greatly reducing the cleaning cost. Using the attached cover can also clean the endface of the metal ring in the plug.



Application Examples



NEOCLEAN-E, EZ series, and NEOCLEAN-M are all high performance hybrid type cleaners that provide cleaning for both optical connector plugs and adaptors in one unit.

NEOCLEAN®-S stick type

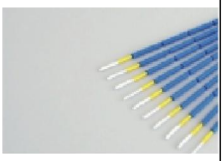
NEOCLEAN® rods made of antistatic materials can control the generation of static electricity during the cleaning process. Similar to the disc type, the cloth for the cleaning part is made of special cleaning fibers. It can be used to clean the endface of the connector inserted into the adapter and the housing.

NEOCLEAN disc type

The fiber optic connector cleaner NEOCLEAN can easily wipe off the dirt on the end surface of the fiber optic connector. Just like the previous products of our company, the cleaning belt does not generate dust, can produce special cleaning power, and prevent foreign materials from adhering to the belt. The main body is also made of antistatic material. It simplifies the advanced mechanism of the belt and minimizes the combined parts, thereby reducing the production and assembly costs.

Specifications

Target Use	Plugs/Adaptors				
Type	Pen Type				
Product Name	NEOCLEAN- E			NEOCLEAN- EZ	
	E1	E2	E3	EZ1	EZ2
Model #	ATC- NE- E1	ATC- NE- E2	ATC- NE- E3	ATC- NE- EZ1	ATC- NE- EZ2
Com-patible Con-nectors	MU, LC	SC,SC2, FC, FAS, FA	SC, FC, ST, E2000, PC/APC	MU, LC	SC, SC2, FC, FAS, FA
Size (mm)	L:240	L:230	L:230	L:113(when attachment removed:104/attached:167)	
Number of Uses	over 750 times			over 400 times	
Type	Replacement cartridges			One time use	
Product Name	ATC- NE- ES1	ATC- NE- ES2	ATC- NE- ES3		

Target Use	Plugs/Adaptors	Plug	Target Use	Adaptors		Ferrule Side Edges
Type	Pen Type	Simple Type	Type	Stick Type		Pipe Type
Product Name	NEOCLEAN - M	NEOCLEAN - R2	Product Name	NEOCLEAN - S		
				S125	S250	P125
						
Model #	ATC - NE- M1	ATC - NE- R2	Model #	ATC - ST - 01N	ATC - ST - 02N	ATC - NE- P1
Com-patible Con-nectors	MPO, MTP®(pin/no pin)	Single core, Multi - core (no pin)	Com-patible Con-nectors	Ø1.25mm	Ø2.5mm	Ø1.25mm
Size (mm)	L:197 × W:15 × H:51	W:115 × D:25 × H:55	Size (mm)	152mm (length adjustment:45/65/85/105mm)		100mm
Number of Uses	over 600 times	over 400 times(Disposable Type	Number of Uses	200 sticks/set		200 sticks/set

Professional Abbreviations

APC: Angled Pressed Connector

BER: 误码率
BER: Bit error rate

CW: 连续波
CW: Continuous Wave

CWDM: 粗波分复用
CWDM: Coarse Wavelength Division Multiplexing

DWDM: 密集波分复用
DWDM: Dense WaveLength Division Multiplexing

DFB 激光器: 分布式反馈激光器
DFB Laser: distributed feedback laser

DUT: 被测设备
DUT: Device Under Test

FP 激光器: 法布里 - 珀罗激光器
FP Laser: Fabry-perot laser

FPT: 光纤极性测试
FPT: Fiber Polarity Test

IL: 插入损耗
IL: Insertion Loss

MEMS: 微机电系统
MEMS: Micro-Electro-Mechanical System

MM: 多模
MM: Multi-mode

NRZ: 不归零 (码)
NRZ: Non-Return-to-Zero (Code)

ORL: 光回波损耗
ORL: Optical Return Loss

OSA: 光谱分析仪
OSA: Optical spectrum analyzer

OSW: 光开关
OSW: Optical Switch

PER: 偏振消光比
PER: Polarization extinction ratio

PON: 无源光网络
PON: Passive optical network

PRBS: 伪随机位序列
PRBS: Pseudo-Random Binary Sequence

SLED: 超辐射发光二极管光源
SLED: Super-Luminescent Light Emitting Diode

SM: 单模
SM: Single mode

SMSR: 边模抑制比
SMSR: Side Mode Suppression Ratio

UPC: Ultra-physical contact

WDM: 波分复用 (器件)
WDM: WaveLength Division Multiplexing (Device)

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