DIMENSION

Testing creates value

Optical Performance Test

Return Loss And Polarity Test

Fiber Endface Interferometer

Fiber Cleaning

Desktop Fiber Endface Inspector

Portable Fiber Endface Microscope

Concentricity Core Tuner

Fiber Cleaning Tool

Fast Connector

Dimension Technology Co.,Ltd

Professional Optical Testing Solutions Provider

Founded in Shenzhen in 2007, Dimension has developed into a global leading optical testing solutions provider with the spirit of "imaging, acting, innovating and leading", providing first-class optical device testing and fiber endface inspection solutions and equipments. After years of hard work, Dimension has built a global marketing and service support network and provided nearly one hundred kinds of optical inspection and testing equipments to more than 5,000 customers worldwide.

Dimension's products include: Universal optical test platform with Stable light source, Optical switch, Optical attenuator, Optical power meter, Return loss meter, BER tester and other optical testing modules, and Fiber endface interferometer, Desktop fiber endface inspector, Portable fiber endface microscope, Fiber endface cleaning machine, Fiber polarity tester, Core tuner S fiber connector tester, etc. Used in Optical communication manufacturers, as well as Optical fiber sensing, Optical network engineering, Scientific research institutes, Power, Security, Medical, Education and other fields. Dimension can also provide customized services according to the special needs of customers.

"Testing creates value", Dimension is committed to helping global customers create more value, with continuous innovative inspection and testing products. Not only to meet the current testing needs of manufacturers and related industry customers , but also to meet their future needs, with advanced forward-looking technology and leading solutions.

Mission: Testing creates value

Values: Imaging Acting Innovating Leading

Imaging

Innovating

Leading

Acting

Committed to solving customers' current and future testing needs

Strength

- Professional optical testing R & D team;
- Leading optical fiber visual inspection technology;
- One-stop optical testing solution, support customization;
- Continuous R & D investment;
- Timely and accurate delivery ;
- Perfect global marketing and service support network

Honor

6+

Domestic direct sales branches

16+

Years focus on optical testing, long-term technology precipitation

50+

Global distribution service agencies

80+

Technology patents

80%+

Chinese optical communication enterprises use our products

5000+

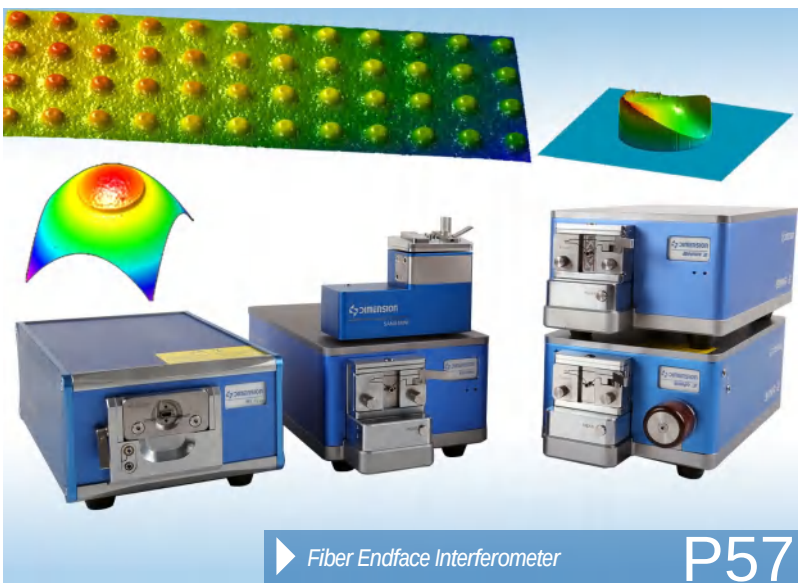
Global customers

Global marketing and service support system

Optical Performance Test P05

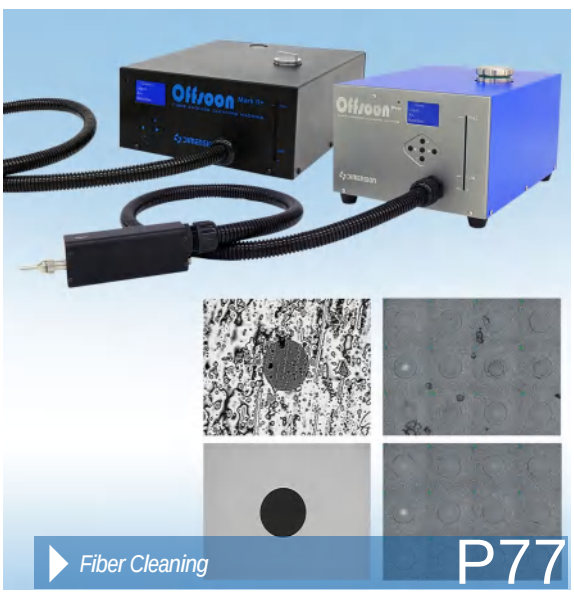
Return loss and polarity test P34

Desktop Fiber Endface Inspector P83



Fiber Endface Interferometer P57

Portable Fiber Endace Microscope P101



Fiber Cleaning P77

Contents

Universal Optical Test Platform

Automation testing for optical manufacturing can effectively improve the production efficiency and reduce production costs, the multi-application programmable universal optical test platform, is the ideal solution for optical manufacturing automation testing system.

Dimension Universal Optical Test Platform, provides a whole set of multi-application optical test solutions for laboratories and high standard manufacturing enterprises. It provides dual-slot ALPHA test platform and 11-slot OMEGA test platform, innovatively adopts the architecture of core board + backplane + functional test module slot, the core board communicates the functional test module via standard USB protocol. The platform can seamlessly compatible with various optical test modules, to realize one-stop automated testing of multiple performances for optical devices.

Main Features

• 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.

• Control and automation

The platform supports Ethernet and USB control functions, can builds automated test systems together with other instruments.

• 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 to 10 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.

Applications

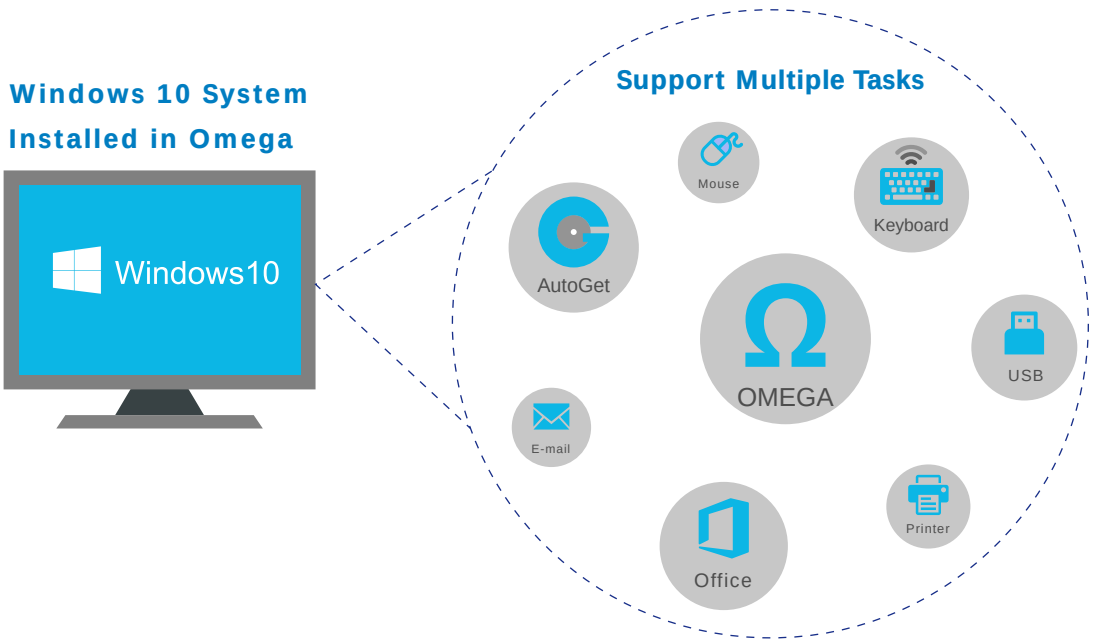
- Laboratory performance testing
- Optical component manufacturing testing system
- Optical telecom equipment automatic testing system
- Manufacturing and industrial robot control system

OMEGA optical test platform

OMEGA is a scalable and programmable 11-slot universal optical test platform, it's motherboard applies Intel Skylake-U architecture, the onboard I5-6300U 2.4GHz (standard) / I7-6600U 2.6GHz (customize) supports dual channel DDR4 and SO-DIMM memory slot, memory capacity up to 32GB, support multiple displays like VGA, HDMI etc, and support dual channel independent display.

The OMEGA test platform's airborne Windows 10 operating system, apart from the built-in softwares that comes with Windows and the applications that developed by Dimension, users can also install any supported third-party applications. Various USB devices supported too.

1. Fast start, powerful processing capability, support multitasking
2. Compatible OFFICE software, convenient and fast
3. Accessible to printer, camera, mouse, keyboard, Bluetooth-WIFI module, AutoGet endface microscope and other equipments



ALPHA optical test platform

ALPHA is a compact and programmable dual-slot universal optical test platform. It adopts ARM + linux architecture, with 3.5'' touch-screen and GUI, supports buttons control and touch control, can quickly and accurately starts measurement without PC or any other controlling devices, which is quite flexible and convenient. The ALPHA chassis has a built-in gravity sensor that supports horizontal or vertical placement, it is ideal for laboratory or automated production testing environment.

Specifications

Parameter	OMEGA	ALPHA
Processor	I5-6300U 2.4GHz (Standard) 、I7-6600U 2.6GHz (Custom)	ARMV7
Chipset	Skylake-U	NA
Ram	Dual channel DDR4 1866/2133MHz SO-DIMM, UP to 32GB (non-ECC)	1G
Hard Disk	M.2*1, SATA2*1, built in 256G SSD	built in 8G
Protocol	USB2.0	USB 2.0
Module NO.	11-slots, 10Functional modules	2-slots, 2 functional modules
Serial Port	RS232*1	
Network Card	10M/100M/1000M Ethernet	10M/100M Ethernet
USB	USB3.0*3, USB2.0*1	USB2.0*2
Display Joint	HDMI*1, VGA*1	NA
Trigger Port	Yes	
Power Supply(module)	24V/2A	
Support Modules	Stable light source / optical power meter / optical switch / programmable optical attenuator / polarity tester/ BERT etc.	
Input Voltage	AC 90~260V 50Hz	
Working Temperature	10°C~40°C	
Storage Temperature	-40°C~80°C	
Size	462mmX374mmX171mm	359mmX274mmX115mm

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

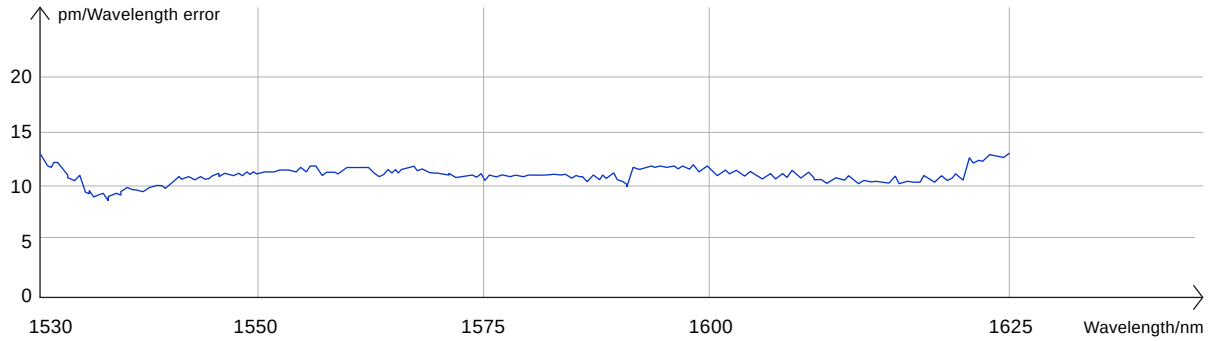
- Wavelength accuracy ±20pm
- Scanning speed up to 100 nm/s
- High signal-to-noise ratio
- Mode-hop-free with rapid sweeps up to 100 nm/s
- Wide wavelength tunable range

Main application

- 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

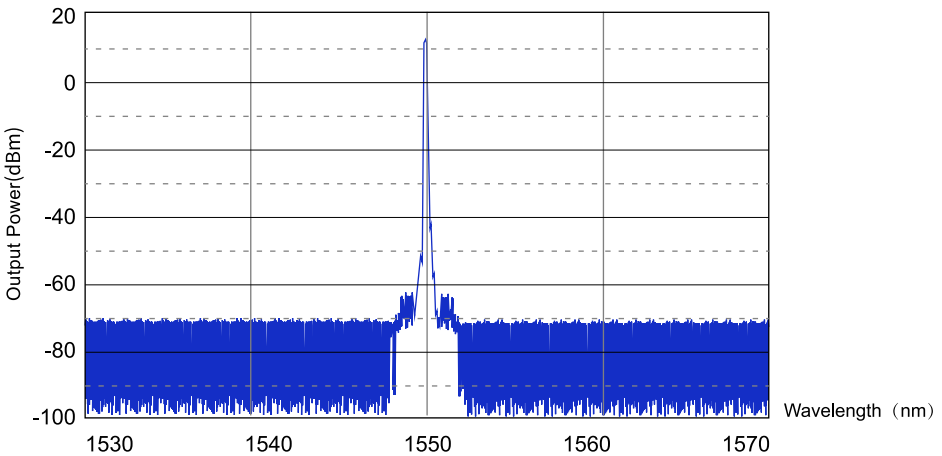
TopLight's tunable laser source ensures that the wavelength accuracy of the light source can reach ±20pm through precise electromechanical control. The repeatability and stability of the wavelength remain reliable even during high-speed scanning. In different test environments, TopLight can also compensate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

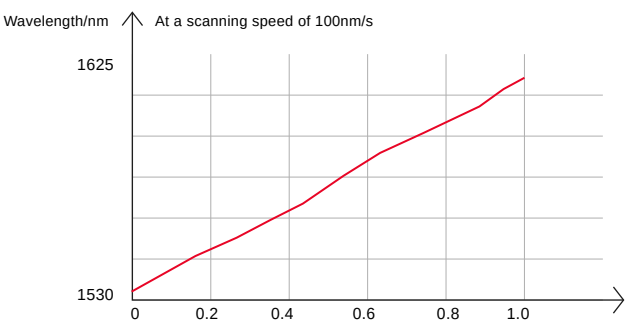
High output spectrum signal-to-noise ratio and side mode suppression ratio

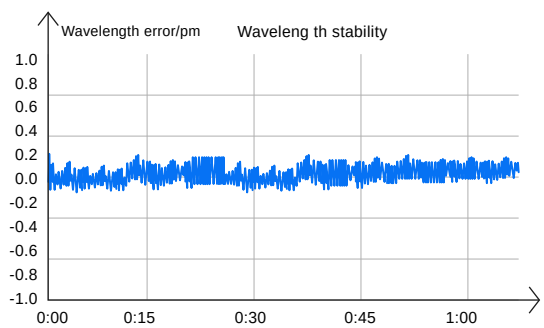
TopLight uses the principle of external cavity resonance to tune the wavelength. Through precise optical and electromechanical control systems, it ensures that the narrow linewidth laser output from the resonant cavity always has a good signal-to-noise ratio and side mode suppression ratio, providing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



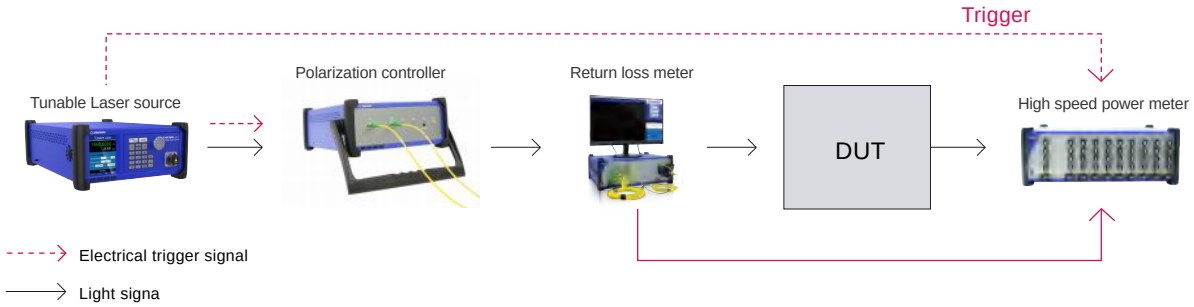
Achieve mode-hop-free within the entire band,ensuring continuity of the wavelength curve

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.

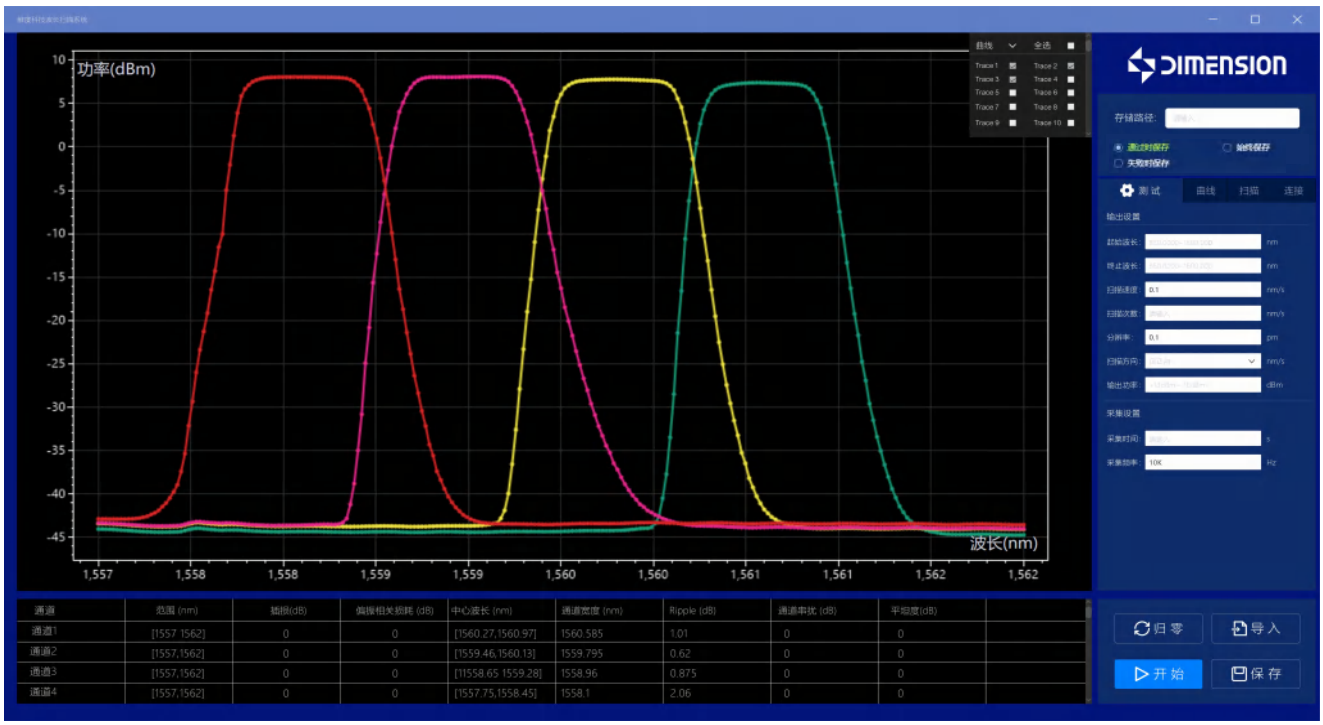




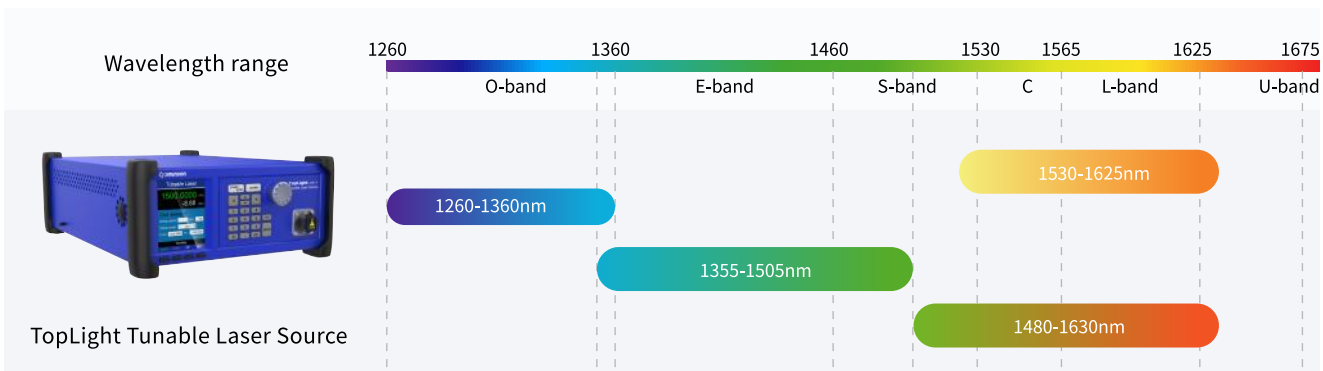
Used with wavelength scanning system to realize optical device scanning test



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/1530nm-1625nm
	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/1525nm-1630nm
		Full wavelength tuning range		+13~-15dBm
	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
5363	1530nm~1625nm

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-5363A-FA-P, TopLight tunable laser source, wavelength range 1525nm~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℃.

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

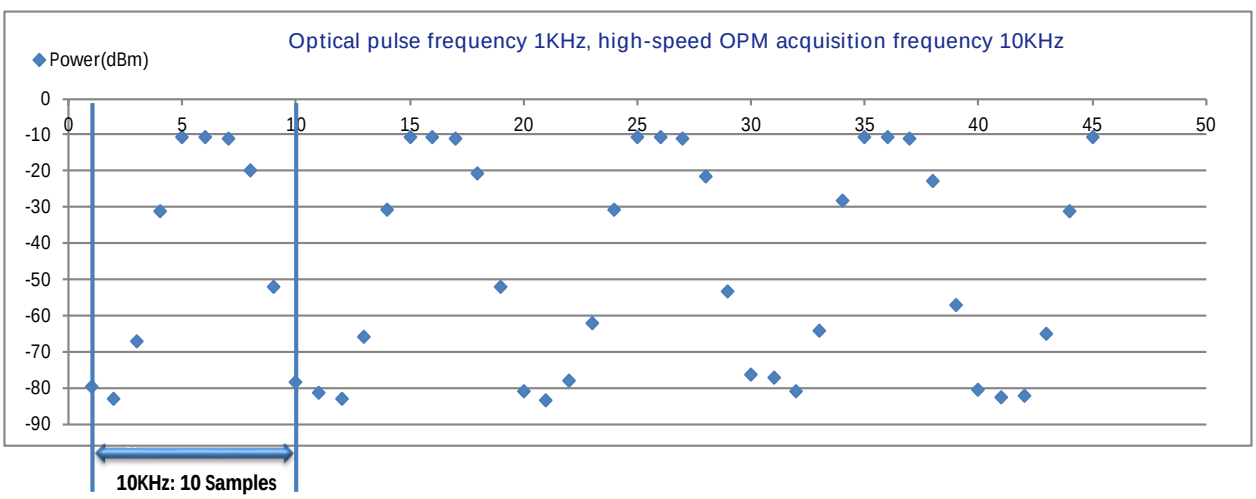
- Continuous acquisition frequency up to 10KHz (full power range)
- Support automatic gain shift acquisition measurement in high-speed mode
- Each channel has a storage depth of up to 10 million
- Support continuous trigger acquisition mode
- Support single trigger batch acquisition mode
- Support fixed 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

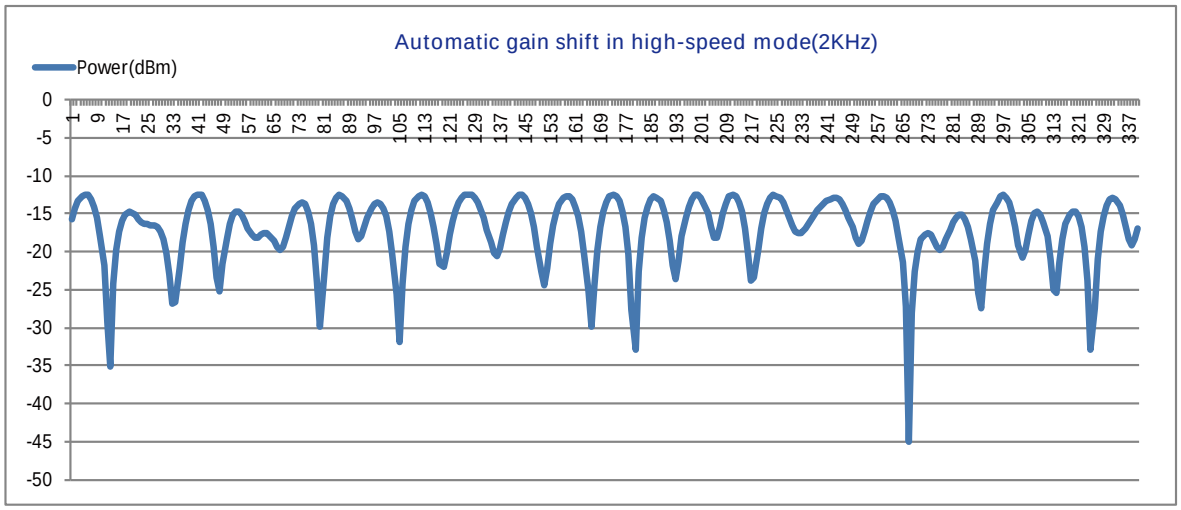
Continuous acquisition frequency up to 10KHz (full power range)

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

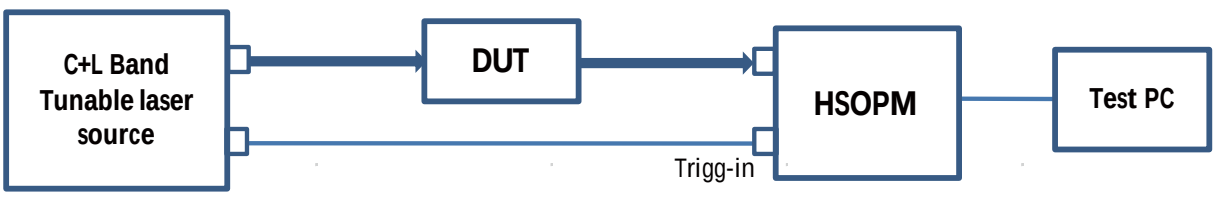
Provides fast automatic gain shift acquisition in high-speed mode, which is very important for accurate acquisition and measurement of power changes in large dynamic range scenarios.

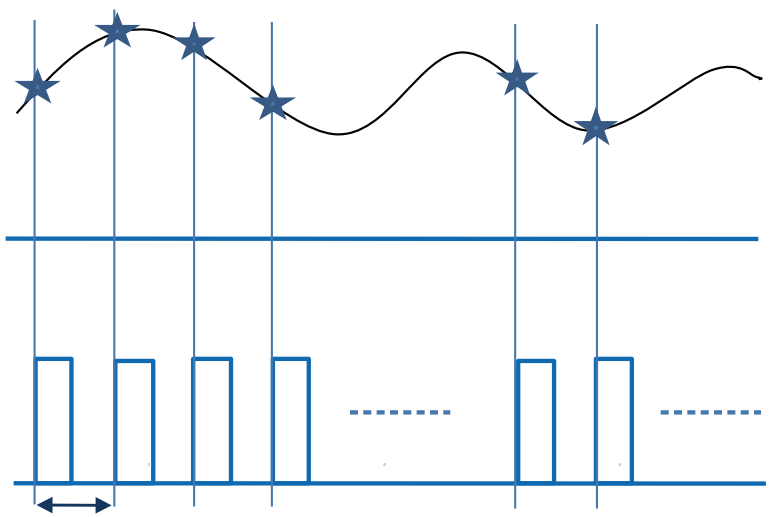


Each channel has a storage depth of up to 10 million

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.

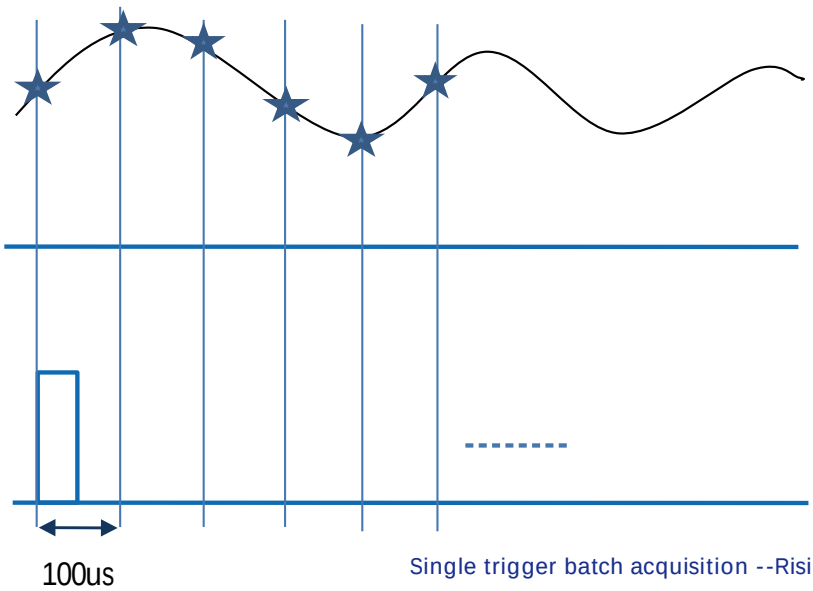




Continuous trigger acquisition-Rising edge trigger 2KHz

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.

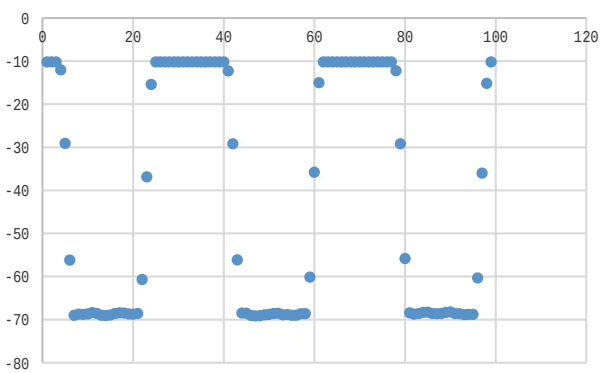


Single trigger batch acquisition --Rising edge trigger 2KHz

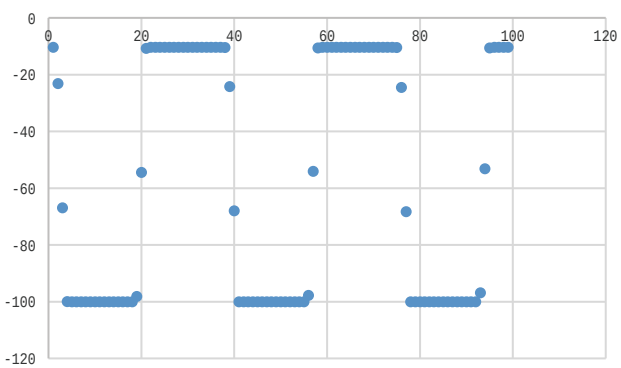
Support fixed gain compensation setting

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)



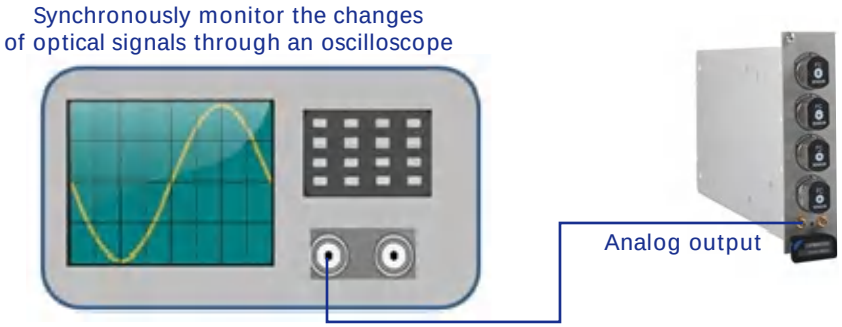
Fixed gain compensationshift acquisition(2KHz)



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

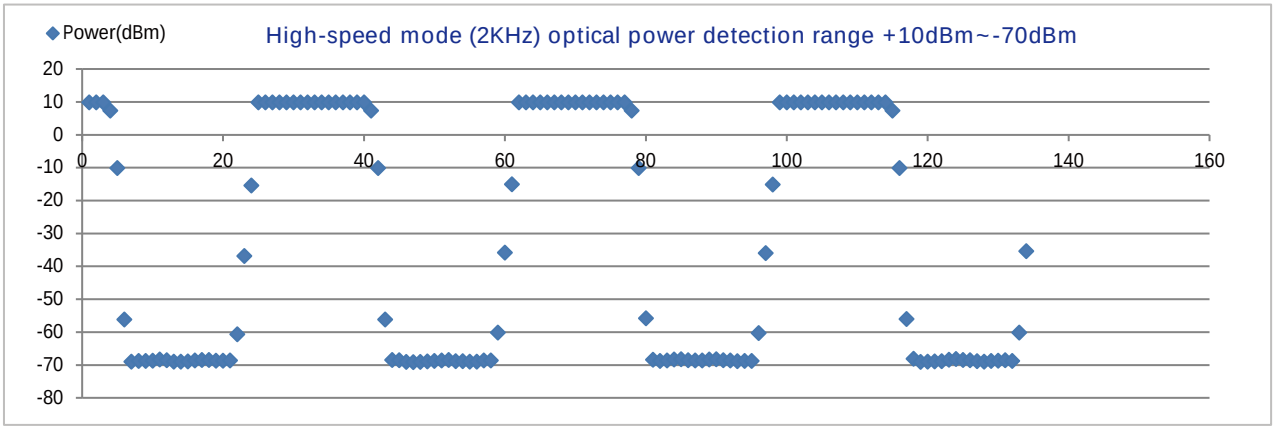
User-configurable analog output port

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



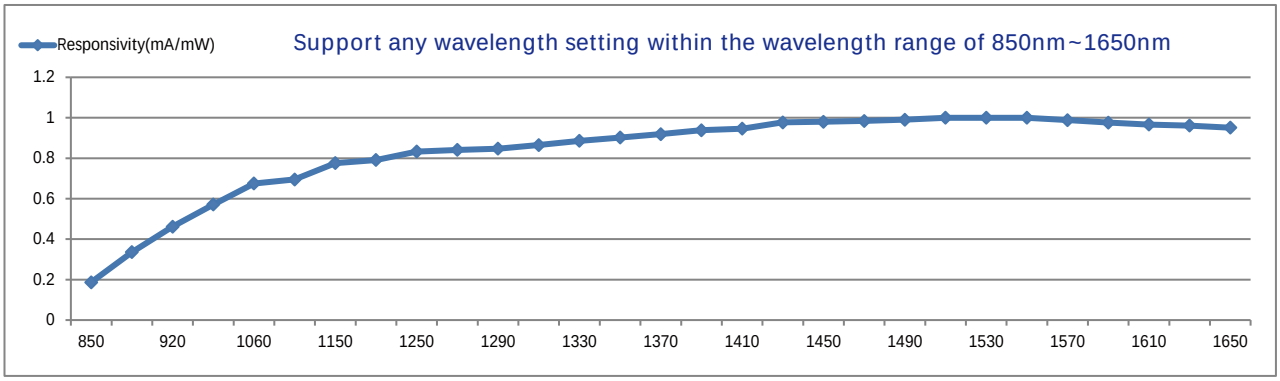
Support optical power detection range in high-speed mode: +10dBm~-70dBm

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

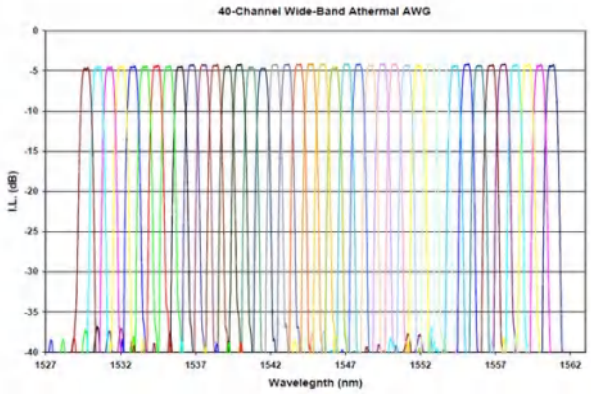
In order to ensure the accuracy of power measurement at any wavelength in the range of 850nm to 1650nm, Dimension Technology has accurately calibrated light sources of different wavelengths. Therefore, our power meter supports users to set any wavelength and ensures the accuracy of power.



Typical application

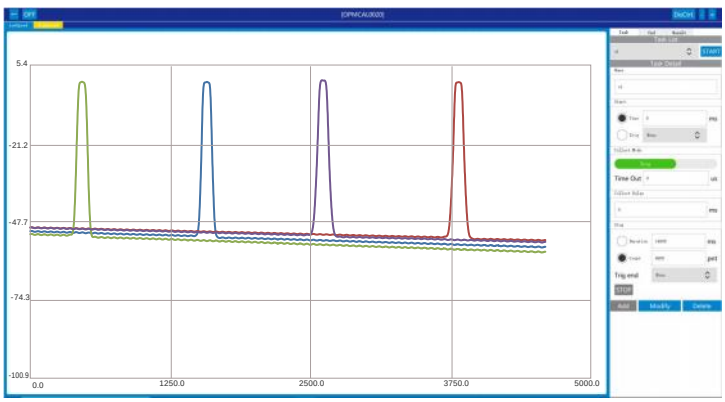
Combined with a tunable light source, the main application of high-speed optical power meters in the wavelength scanning test of optical passive devices.

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	OPM2XXXA
Number of detectors	1/2/4
Detector type	InGaAs
Detector size	2mm
Wavelength range	850nm~1650nm
Power 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）
Display accuracy	0.001dB
Wavelength resolution	1nm
Sampling rate	10Khz(MAX)
Return loss	>55 dB
Buffer size	10 million/CH
Trigger input	Support
Analog output	Support
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℃~40℃
Storage temperature	-40℃~70℃
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
3	3mm

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.

High-Performance 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%+30pW)
Display accuracy	0.001dB
Wavelength resolution	1nm
Averaging time	10us~1s
Return loss	>55 dB
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	OPM2XXXA
Number of detectors	1/2/4
Detector type	InGaAs
Detector size	2mm
Wavelength range	850nm~1650nm
Power 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）
Display accuracy	0.001dB
Wavelength resolution	1nm
Sampling rate	10Khz(MAX)
Return loss	>55 dB
Buffer size	10 million/CH
Trigger input	Support
Analog output	Support
Fiber type	SM/MM

High-power series

Main Features

- One, two or four detectors on a single module
- Wavelength range: 850nm~1650nm
- Up to +26dBm, +36dBm two high-power model options
- User-configurable trigger input and analog output
- Compatible with single-mode and multimode fiber

Applications

- Amplifier characterization test
- Absolute power measurement
- Laboratory application

Specifications [4]

Model	OPM3XXXB	OPM3XXXC
Number of detectors	1/2/4	1/2/4
Detector type	InGaAs	InGaAs
Detector size	2mm	2mm
Wavelength range	850nm~1650nm	850nm~1650nm
Power range	+26dBm~-50dBm(Typ.)	+36dBm~-40dBm(Typ.)
Maximum safe power	+30dBm	+40dBm
Linearity [1]	±0.25dB（+15dBm~-30dBm）	±0.5dB（+20dBm~-25dBm）
Polarization-dependent responsivity [2]	±0.01dB（0dBm~-50dBm）（Typ.）	±0.01dB（0dBm~-40dBm）（Typ.）
Uncertainty [3]	±（5%+1nW）	±（5%+10pW）
Display accuracy	0.01dB	0.01dB
Wavelength resolution	1nm	1nm
Averaging time	10us~1s	10us~1s
Return loss	>55 dB	>55 dB
Buffer size	NA	NA
Trigger input	Support	Support
Analog output	Support	Support
Fiber type	SM/MM	SM/MM

High-sensitivity series

Main Features

- Wavelength range: 850nm~1650nm
- Up to -90dbm weak signal detection and wide dynamic range (100dB)
- User-configurable trigger input and analog output
- Compatible with single-mode and multimode fiber

Applications

- Optical weak signal power measurement field
- Laboratory application

Specifications [4]

Model	OPM4XXXA
Number of detectors	1/2
Detector type	InGaAs

Detector size	300μm
Wavelength range	850nm~1650nm
Power range	+10dBm~-90dBm(Typ.)
Maximum safe power	+13dBm
Linearity[1]	±0.05dB（+5dBm~-50dBm） ±0.15dB（-50dBm~-70dBm）
Polarization-dependent responsivity[2]	±0.01dB（0dBm~-50dBm）（Typ.）
Uncertainty[3]	±（5%+1pW）
Display accuracy	0.001dB
Wavelength resolution	1nm
Averaging time	10us~1s
Return loss	>55 dB
Buffer size	NA
Trigger input	Support
Analog output	Support
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℃~40℃
Storage temperature	-40℃~70℃
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.

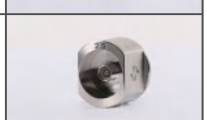
[2] The temperature is 23 °C ± 1 °C, using a non-angle FC connector, 1550nm wavelength, the power is constant

[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 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

OPM [ ] [ ] [ ] [ ] [ ]

OPM Mode	
1	High-Performance series
2	High-speed series
3	High-power series
4	High-sensitivity series
5	Cost-elective series

Channel Quantity	
1	1CH
2	2CH
4	4CH

Detector type	
1	InGaAs detector
2	Si detector

Detector size	
1	300μm
2	2mm
3	3mm

Expanded option	
A	MAX power (+10dBm)
B	MAX power (+26dBm)
C	MAX power (+36dBm)
D	MAX power (+6dBm)
X	Specified by Customer

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

Stable Light Source

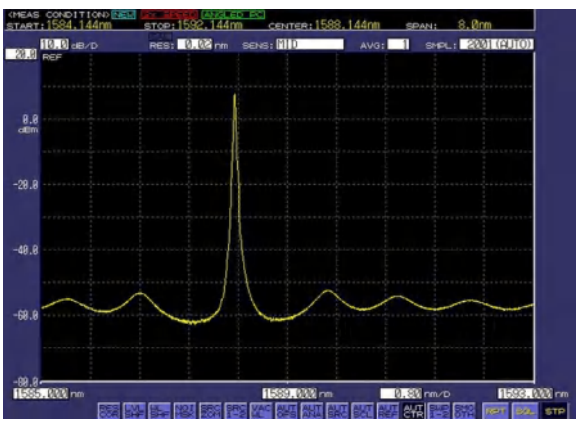
Stable light source plays an irreplaceable role in all optical testing and researching area. In order to satisfy different application scenario needs, Dimension developed 4 kinds of stable light sources: DFB laser source, FP laser source, SLED broadband light source, and ultra-narrow linewidth laser 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 -3dBm 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

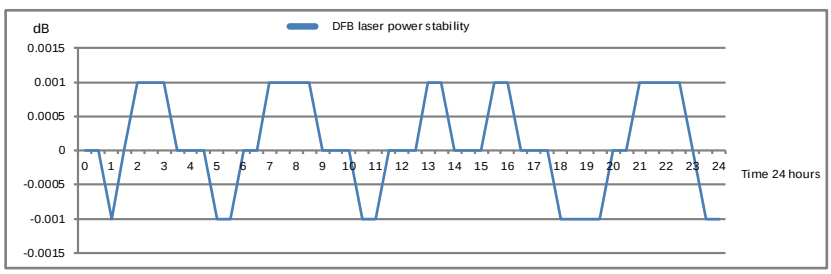


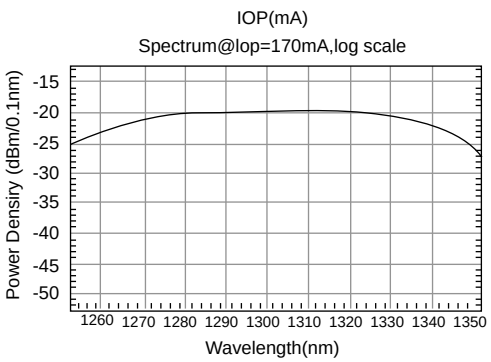
Chart1-1 Parameters of DFB Stable Laser Source[1][2][3][4]

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℃ ~ 40℃	
Storage temperature	-40℃~70℃	
Size	Machine: 359mm*274mm*115mm; Module: 285mm*133mm*36mm	
Input power	AC 90~260V 50Hz	

SLED broadband light source

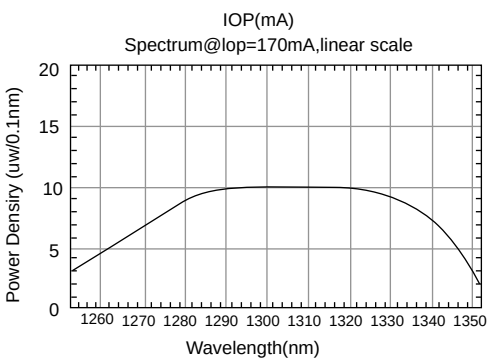
Main Features

- 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℃～40℃
Storage temperature	-40℃～70℃
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

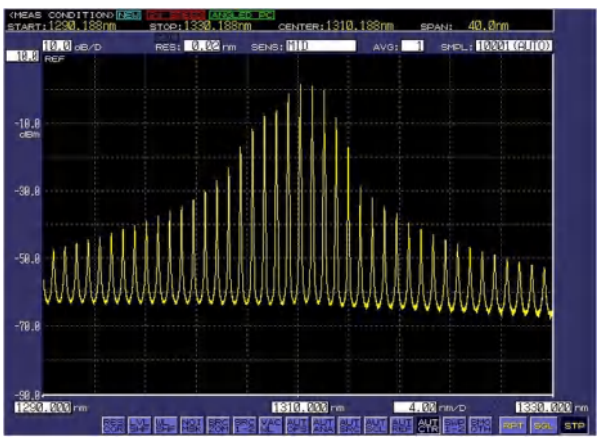


Chart1-3 Parameters of FP Laser Source [1][2][3][4]

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℃～40℃	
Storage temperature	-40℃～70℃	
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

Remarks:

[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℃

[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.

Optical Switch

Optical switch has an irreplaceable important role in all automated optical test system. It's the core device to realize multiple objects testing and automated testing for various optical parameters, can avoid measurement uncertainty in multiple insertion and plug-pull of optical connectors.

Dimension offers a series of high-performance OSW optical switch modules for automation testing systems. These modules fit well in laboratories and in high standard manufacturing environments, applied together with Dimension's universal test platform, it can automatically route optical signals under program control, enabling parallel measurements for multiple optical channels and multiple optical components, significantly reducing the test time. So as to improve the total efficiency of testing procedures and reduce the overall cost.

Main Features

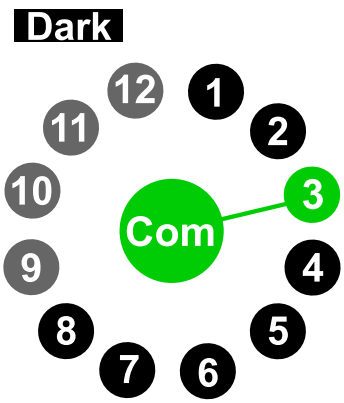
- Programmable, multi-switch between time, button and software control
- Low insertion loss, low polarization dependent loss and high channel consistency
- High repeatability with service life more than 10 million times
- Short switching time, less than 30ms
- Platform + module design
- Support multiple control methods such as remote control

Applications

- Optical path switching
- Optical loop protection and switching
- Optical network remote monitoring
- Optical device testing and research

Programmable, supports multiple trigger modes

OSW optical switch, can flexibly set the trigger modes of path switching by its program function. It can be triggered by external TRIG signal, waiting time, touch-screen, physical button or other modes, to provide various interfaces for the subsequent development of automation program.



High repeatability

OSW can reach 10 million times of random switch, MEMS optical switch can even reach to 1 billion times. The repeatability of insertion loss for 100 times random switch is less than 0.02dB, can provide users a high reliable optical path. [1]

Low insertion loss, low polarization dependent loss, high channel consistency

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

Platform + modular design, support multiple control modes

Dimension's universal test platform, is compatible with a wide range of functional test modules including OSW optical switches, offering significant advantages such as hot-pluggable, programmable, scalable, easy to maintain&manage, and low overall cost. Supports Ethernet control, USB control, touchscreen and physical buttons.

OMEGA Test Platform

ALPHA Test Platform

Technical Specifications

Module	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	≥10^{7}	≥10^{9}
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	AC90 ~ 260V/50HZ	
Operation temperature	10℃ ~ 40℃	
Storage temperature	-40℃ ~ 70℃	
Size [3]	MainFrame: 359mm×274mm×115mm single-module: 285mmX133mmX35mm Dual-Slot Module: 285mmX133mmX71mm	

Ordering Information

OSW □ □ □ □ — □ □

Fiber type	
1	SM 9/125
5	MM 50/125
6	MM 62.5/125
7	MM 100/125
8	MM 200/225
9	MM 300/325

Number of input	
1	1
2	2
4	4

Number of output	
02	2
04	4
08	8
12	12
13	13
…	…
99	Customized

Mechanism	
A	Mechanical
B	MEMS
C	Customized

Interface type	
FA	FC/APC
FP	FC/PC
SA	SC/APC
SP	SC/PC
LA	LC/APC
LP	LC/PC
X	Customized

Example:
Module: OSW1112A-FA,Mechanical 1X12,optical switch,Single mode 9/125,interface type FC/APC

[1] Lifetime of mechanical optical switch is longer than 10, lifetime of MEMS switching life is longer than 10

[2] Excluding connectors.For mechanical optical switches the polarization dependent loss less than 0.05dB,for MEMS the polarization dependent loss less than 0.1dB.The insertion loss is related to the number of optical switch ports.The insertion loss of mechanical optical switches,is shown in the table below.

[3] Depending on the number of optical switch ports, there is single-slot, dual-slot, and multi-slots, where the width of multiple slots is a superposition of single-slot widths.

[4] Repeatability test condition is 23℃±3℃, MEMS optical switch test 100 times, using FC/APC interface; The number of mechanical optical switch channels is 24 or less.

Brand new

Multi&single Mode 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

- Multi-mode ring flux control, calibration with multiple light sources
- Large attenuation range (MM>55dB, SM>40dB)
- Lower insertion loss, 200% increase in attenuation rate
- Ultra-high attenuation accuracy and repeatability
- Built-in power monitoring, three control modes
- Supports custom task settings and programming

Main application

- 800G optical module testing
- Optical path loss simulation
- Optical device BER (Bit Error Rate) testing
- EDFA (Erbium-Doped Fiber Amplifier) manufacturing and inspection
- WDM (Wavelength Division Multiplexing) power balancing

Strictly control multi-mode EF (Encircled Flux), adaptable to different types of light source injection

Due to the different encircled fluxes when different multi-mode lasers transmit within the optical fiber, there will be significant errors in the calibration data of the attenuator without calculating EF. Weidu Technology's multi-mode attenuator, through the mode controller and strict encircled flux detection equipment, strictly controls the EF within the standards of IEC-61280-1-4 and TIA-455-203, ensuring good testing accuracy under the injection of different light sources.

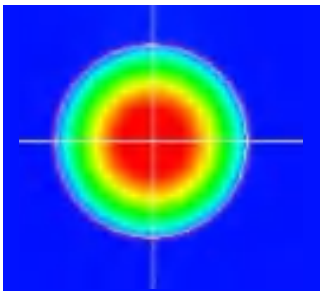


Figure 1 Overfill injection

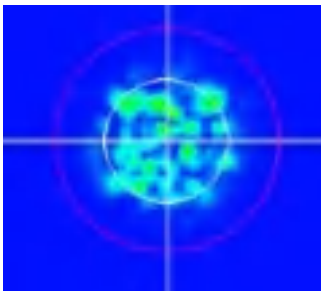


Figure 2 Under injection

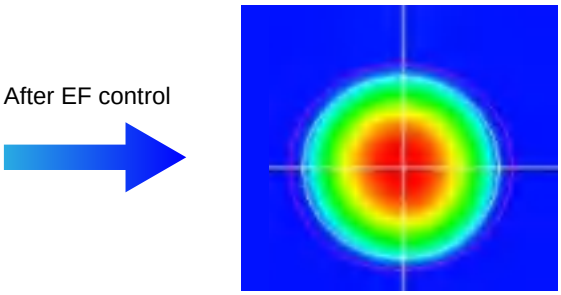
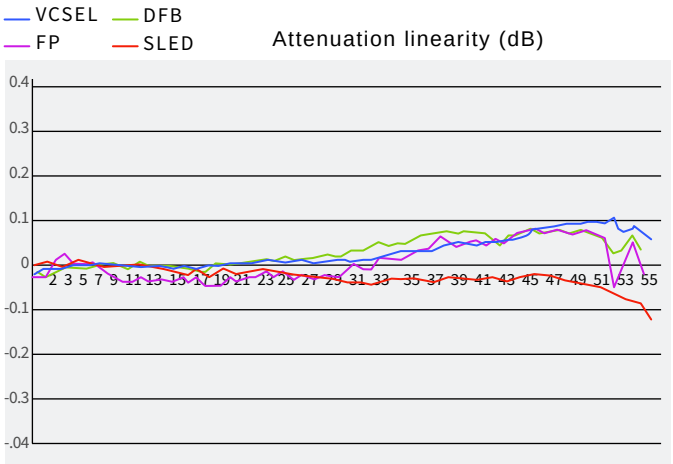
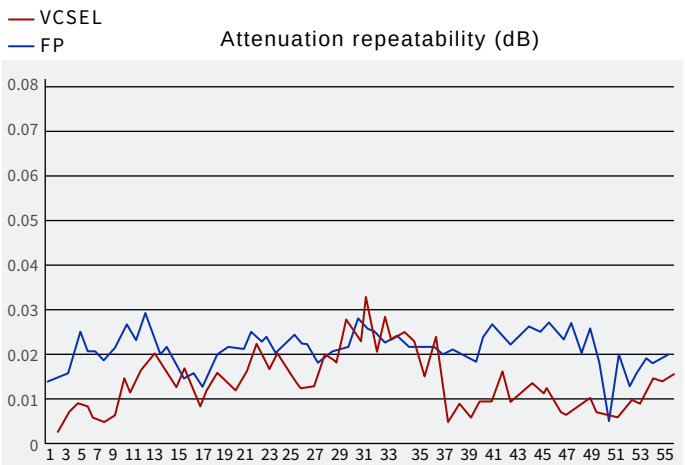


Figure 3 Complies with EF standards

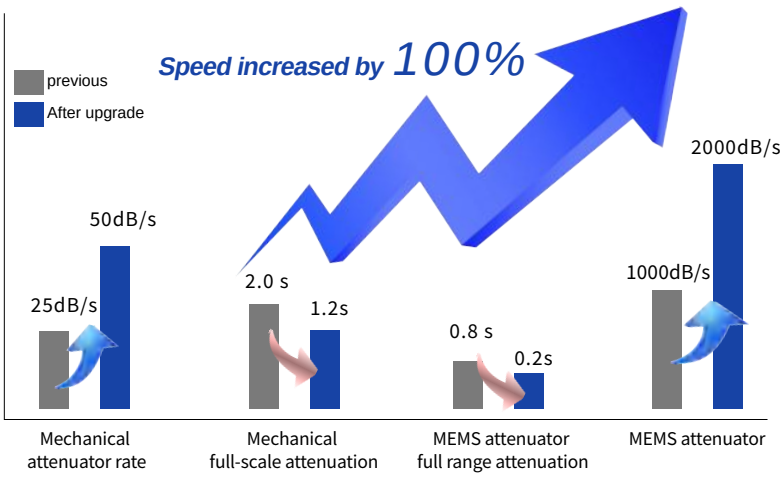
Test results after optimization: attenuation linearity ±0.10dB





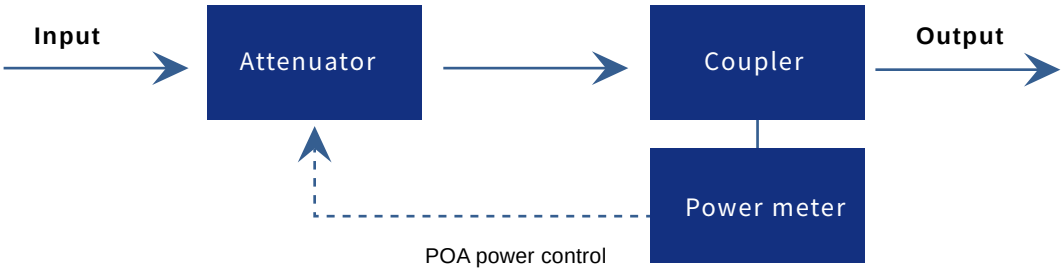
Ultra-low insertion loss and ultra-fast attenuation speed

The next-generation programmable optical attenuator, through optical path structure optimization, has achieved a further reduction in insertion loss (SM<1.0dB, MM<2.0dB). At the same time, the optimized design structure can meet higher attenuation rate requirements. The rate of mechanical attenuators has been upgraded from 25dB/s to 50dB/s, with full-range attenuation in 1.2 seconds; MEMS attenuators have been increased from 1000dB/s to 2000dB/s.



Built-in power monitoring with semi-open loop detection, controlling attenuation in three modes

To accurately measure the power value after attenuation, POA has added an optional optical power meter component after the attenuation optical path, monitoring the optical path attenuation in a semi-open loop. With the addition of the power meter, real-time feedback adjustment is made in power monitoring mode, achieving an attenuation accuracy of ±0.10dB.



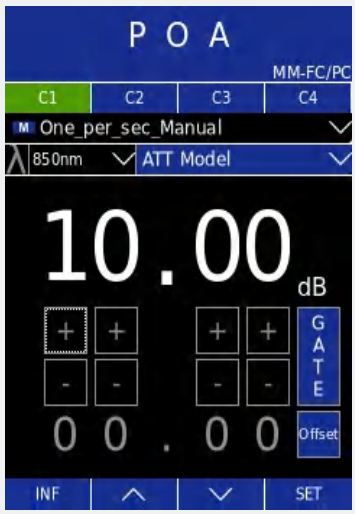
The all-new generation of attenuators has been designed with three control modes to cater to different application scenarios and meet various needs:

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.

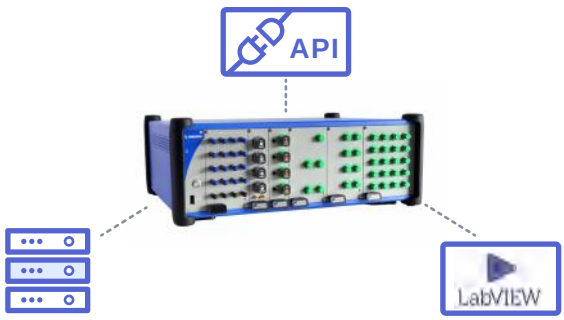


Attenuation Mode

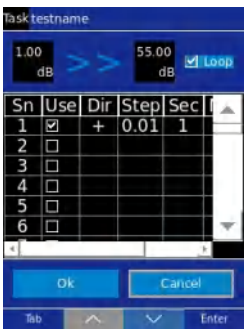
Directly adjust the attenuation value.

Programmable support for remote control and automatic testing, platform + modular design

For users with a high degree of automated integration in their testing systems, Weidu's new generation of programmable optical attenuators offers various remote control methods, including API interfaces, control commands encapsulated in LabVIEW statements, and OMEGA client software, etc., to help users quickly embed into the testing system.



For use cases in laboratories and universities, providing a setup interface on visual software makes it more convenient for users. Therefore, Weidu Technology offers a highly customizable automatic attenuation task feature, allowing for quick test task setup.



Specifications [1]

Product type	Mechanical	MEMS
Product model	POA2XXXA-FP	POA3XXXC-FA
Fiber Type	MM 50/125 or 62.5/125 μm	SM 9/125μm
Wavelength range	830/1350 nm	1260~1650 nm
Attenuation range	>55dB	>40dB
IL [2]	<1.5dB without power monitoring <2.0dB with power monitoring	<1.0dB-with power monitoring
RL [2]	>30dB	>50dB
Attenuation accuracy	±0.10dB	±0.3dB
Attenuation resolution	0.01dB	0.01dB
Attenuation repetition	±0.05dB	±0.15dB
Attenuation speed	25dB/S	1000 dB/s
Max. input power	+27dBm	+27dBm
Closed-loop power range (Typ.)	+20~-47dBm	+20~-37dBm
Power monitor linearity	±0.15dB	± 0.15 dB
Power setting repeatability	± 0.03 dB	± 0.03 dB
Power setting resolution	0.01 dB	0.01 dB
Warming up time	20 minutes (if the storage temperature is different from the service temperature, the preheating time is 60 minutes)	
Recommended recalibration period	2 years	
Operating temperature	10℃~40℃	
Storage temperature	-40℃~70℃	
Size	Machine：359mmX274mmX115mm；Module：285mmX133mmX71mm	

Ordering Information

POA □ □ □ □ — □ □

Model	
2	Mechanical MM
3	MEMS SM

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 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	custom

Example:

Model: POA2450A-FP four-way adjustable optical attenuator, multi-mode 50/125, no built-in Power Meter, interface type FC/PC

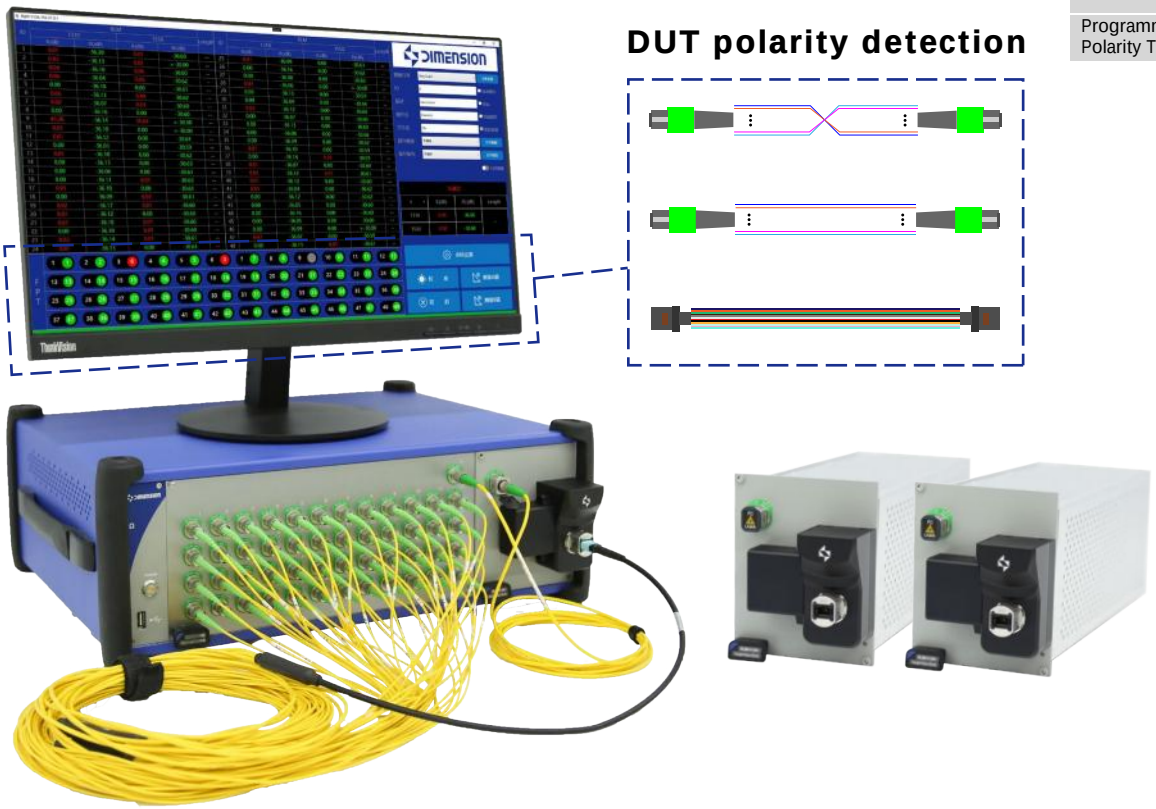
[1] Test wavelength:1310 nm/1550 nm for single-mode,850 nm/1300 nm for multimode.

[2] Including connectors.

[3] All the specfication are tested in 23℃±3℃.

[4] SM MEMS only can be chosen POA3409C.

Multi-channel polarity IRL



The current insertion and return loss meters on the market can only test the insertion loss and return loss,the polarity measurement can not be synchronously resulted for multiple optical fibers.
Dimension Technology's polarity insertion return loss tester has completed the three-in-one automatic test of multi-core optical fiber IL, RL, and polarity through innovative design and technology.The device has not only be able to measure the polarity of the simplex fiber,but also has a polarity learning function, which greatly improves production efficiency, reduces equipment investment costs, and guarantees IL under the premise of improving efficiency. .Reliability and accuracy of RL measurements.

Main Features

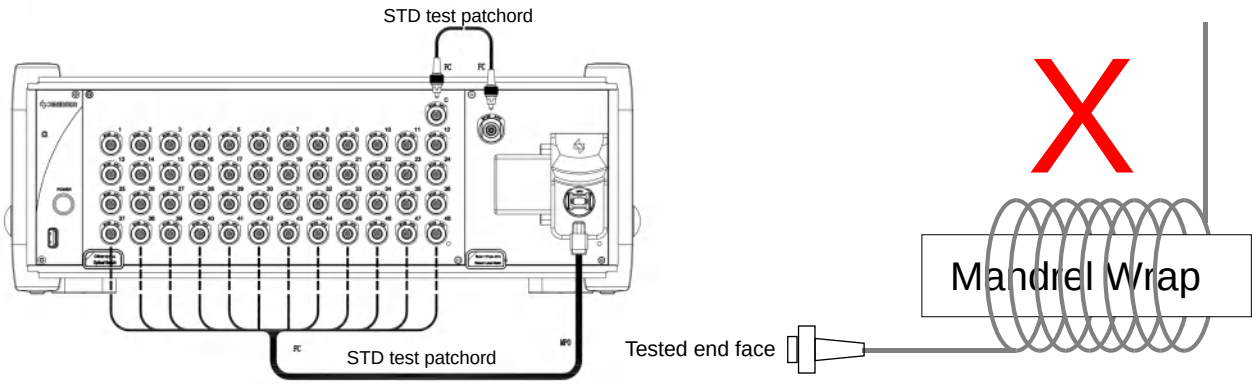
- RL mandrel-free, IL, RL and polarity detection, single channel test time as low as 1.5S
- Support various optical devices to test fiber polarity
- Three-in-one automatic test of mpo fiber IL.RL and polarity
- Save work stations and increase production and test efficiency by more than 6 times
- Abundant 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

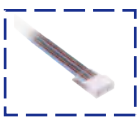
RL mandrel-free test, IL, RL and polarity detection, single channel test time as low as 1.5S

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 channelto 1.5S (fast mode)



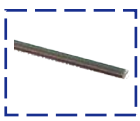
Support various optical devices to test fiber polarity

Based on the years of the experience accumulation researching on optical lenses. it has realized a large photosensitive area, and the polarity learning of optical devices within the area can be easily customized and completed.


FA Fiber Array


MT Ferrule


MPO Connector


Ribbon Bare Fiber

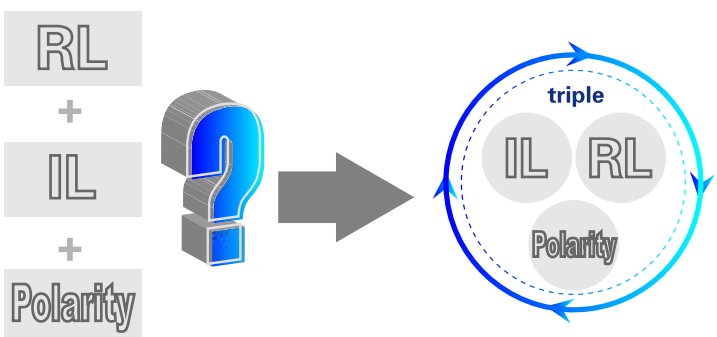

Polarity Learning Setup


IL.RL and polarity 3-in-1 test

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

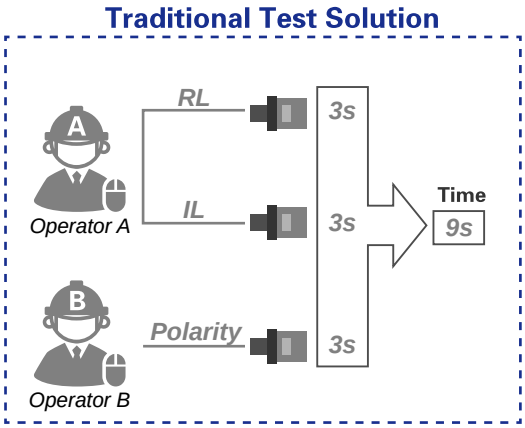
Multi-channel polarity insertion return loss tester can quickly realize mandrel-free multi-core optical fiber.Patch cord return loss test and insertion loss test, at the same time can realize multi-core optical fiber.

Polarity detection, truly realizing the three-in-oneautomatic test of loss and polarity.

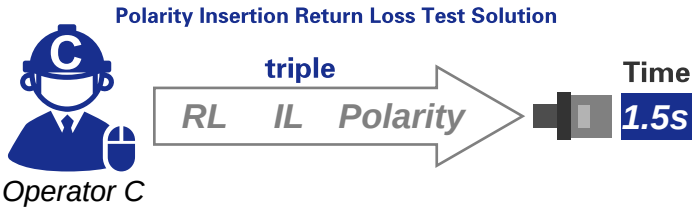


Save work stations, increase production and test efficiency by more than 6 times

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 1.5S (fast mode). The test efficiency is increased by more than 600%, and the cost of customer equipment investment can also be reduced.

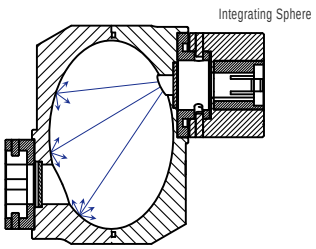


Efficiency developed to 600%



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.

Main Specifications

	Basic product model	RLM1612A-1FA-24	RLM5656A-1FP-24
Light source	Fiber type	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm
	Source Type	Laser	Laser
	Encircled Flux Standard	NA	IEC-61280-4-1
IL section	IL Accuracy*	0~1dB:±0.02dB 1~5dB:±0.1dB 5~10dB:±0.5dB	0~1dB:±0.02dB 1~5dB:±0.1dB
	IL Stability*	±0.02dB（<0.5H） ±0.03dB（<8H）	
	IL Repeatability*	±0.02dB	
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	<18s（Fast Mode：SM MPO12<18S;MM MPO12<18S）	
	Display resolution	0.01dB	
Mainbody	Input power	AC90～260V/50HZ	
	Warming up time	30 minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)	
	Recalibration period	2years	
	Working temperature	10℃～40℃	
	Storage temperature	-40℃～70℃	
	Size	ALPHA platform：359mm×274mm×115mm,OMEGA platform：462mm*374mm*171mm，Module：285mmX133mmX71mm	

*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 □ □ □ □ □ — □ □ — □

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

Detector type	
6	InGaAs 2mm (polar integrating sphere)

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

RL test	
A	Mandrel-free (OMEGA-Standard)
C	Mandrel-free (OMEGA-Lite)

Laser output port	
1	1CH
2	2CH

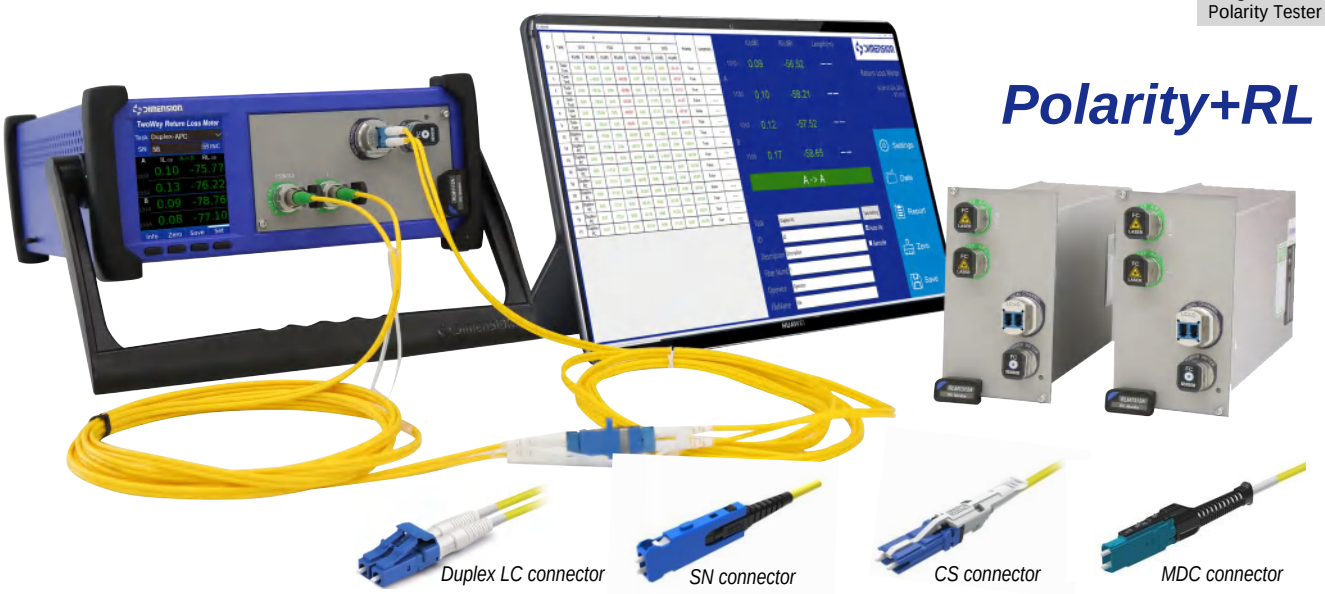
Laser Connector Type	
FA	FC/APC
FP	FC/PC

Number of cores
12:12 cores
24:24 cores
48:48 cores

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



TwoWay fiber polarity and return Loss meter is a new product that Dimension uses innovative design concepts to sol problems encountered in the current duplex fiber jumper test, which can realize the simultaneous automatic test of I and Polarity. The testing time of IL, RLand Polarity at the same time is less than 1.2s (fast mode), which can greatly improve the testing efficiency and reduce the cost of test equipment investment. At the same tim it also guarantees the reliability of IL and RLmeasurement under the premise of improving efficiency. The minimum can achieve -80dB Return loss detection (single mode). TwoWay' s fast and accurate measurement function is an effective tool to imp rove production efficiency and quality control.

Main Featu res

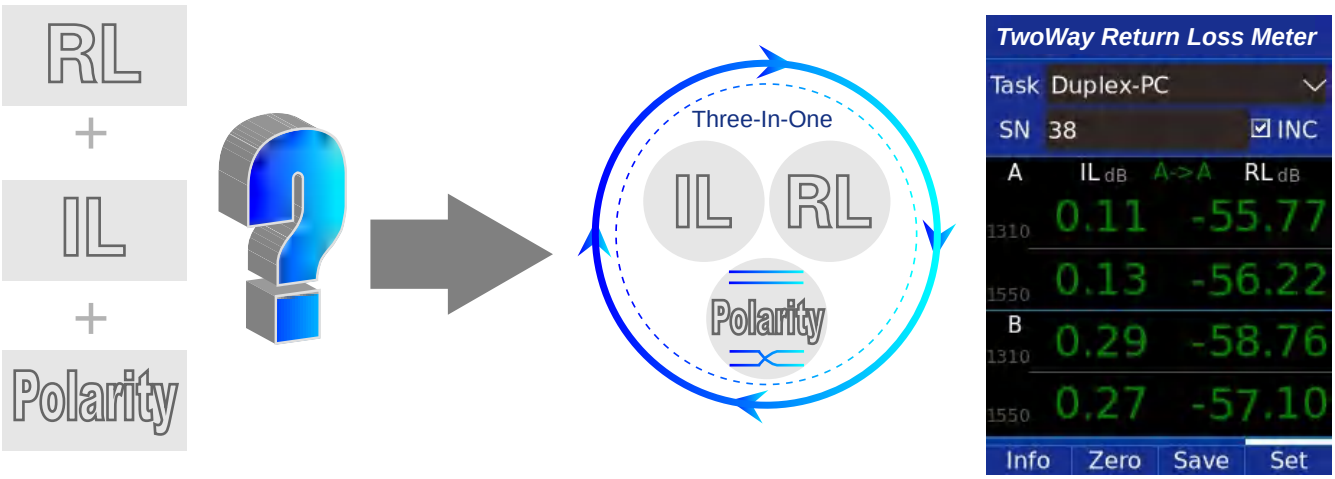
- Three-in-one automatic test of duplex fiber IL,RL and polarity
- RL mandrel-free test, IL,RL and polarity test time is less than 1.2s
- Reduce test work station and increase production test efficiency by more than 300%
- RL minimum detectable down to - 80dB(SM)
- Minimum measuring fiber length 0.7 m
- Support single-core and duplex LC, CS, SN,MDC and other fiber patchcord tests.
- Rich interchangeable, high reliability detector adapter
- Support physical button, touchscreen, network, USB control methods
- Platform + module design, multi-application and scalable
- Support PC-side control software, automatic saving test data/report, support remote network control

Applications

- Fiber patchcord and connector performance test
- Other optical passive device performance test

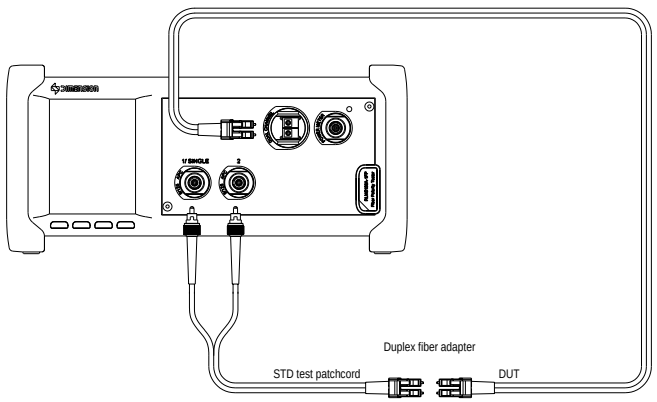
Three-in-one automatic test of duplex fiber IL,RL and polarity

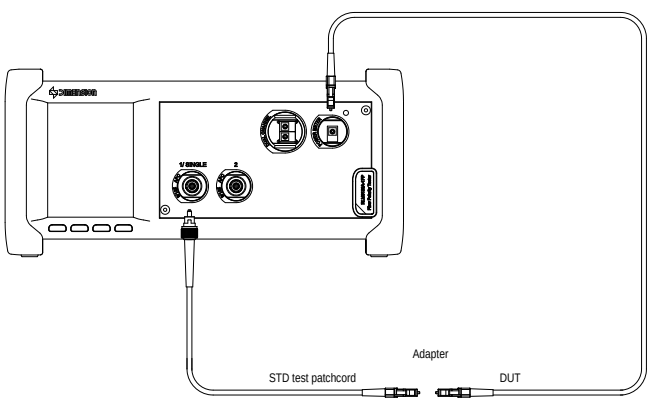
TwoWay fiber polarity and return Loss meter can quickly complete the winding-free return loss and insertion loss test of the duplex fiber jumper. At the same time, it can realize the polarity detection of the duplex fiber, and truly realize the three-in-one automatic loss and polarity test.

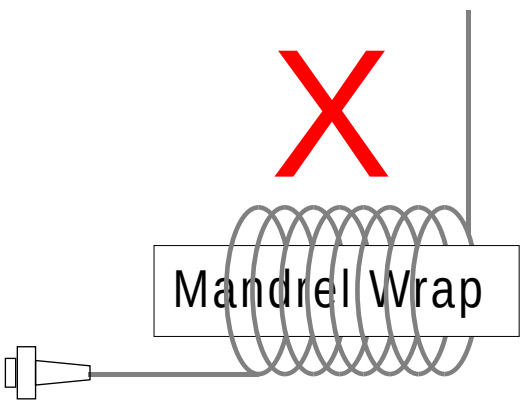


RL mandrel-free test, IL,RL and polarity test time is less than 1.2s

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)

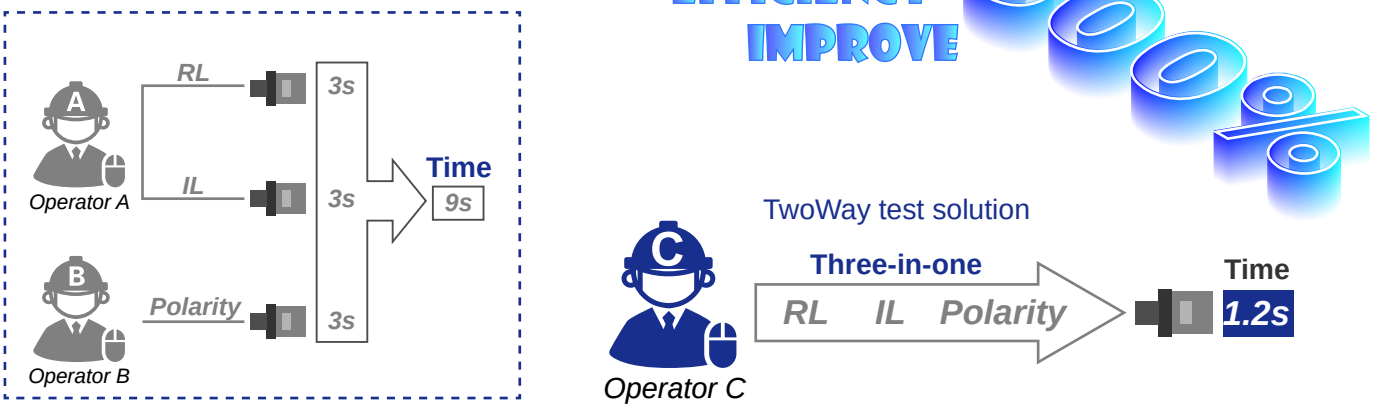






Reduce test work station and increase production test efficiency by more than 300%

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

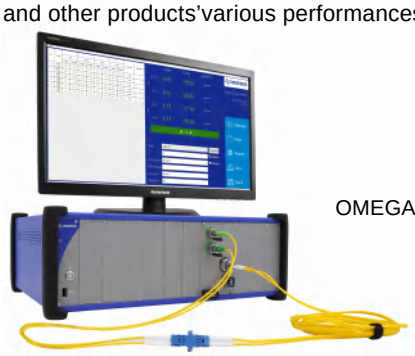
Support PC-side control software, automatic saving test data/report, support remote network control

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		RLM1312A-2FA	RLM5356A-2FA	RLM-L-1312A-2FA	RLM-L-5356A-2FA
Product series		Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability *	±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
RL section	RL Range	-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~-65dB:±1.0dB -65~-70dB:±2.0dB	-15~-50dB:±1.0dB -50~-55dB:±2.0dB
Others	Fiber length (Min)	DUT reflections (both ends)>50dB: 0.6m DUT reflections (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	30 minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)			
	Recalibration period	2years			
	Working temperature	10℃~40℃			
	Storage temperature	-40℃~70℃			
	Size	ALPHA platform: 359mm×274mm×115mm,OMEGA platform ;462mmX374mmX171mm Module: 285mmX133mmX71mm			

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

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 □ □ □ □ □ □ — □ □

Module	
-L	Lite
/	Pro

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

Detector type	
3	InGaAs 2mm (TWOWAY)

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	
2	2CH

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

Eg: RLM1312 A-2FA TWOWAY Mandrel-free IRL test module Pro,1310/1550 ,SM 9/125 ,InGaAs 2mm (TWOWAY),Laser output 2CH FC/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

Dimension Multifiber IRL meter uses a high stability laser source and a high precision optical power meter for mandrel-free return loss testing and high-speed insertion loss testing. The single-wavelength loss test time is less than 0.5s, and the minimum loss detection can be achieved -80dB. Includes 6 testing wavelengths for single mode and multiple mode (multiple mode :850nm, 1300nm, single mode :1310nm, 1490nm, 1550nm, 1625nm).The optimized integrating sphere can measure the loss of a dense multi-core MTP/MPO connector as well as the loss of a duplex-LC device. RLM fast and accurate measurement function make it an ideal tool for improving production efficiency and quality control.

Main Features

- Platform + module design, multi-application and scalable
- RL mandrel-free test, dual wavelength test speed less than 1s
- RL minimum detectable down to -80dB(single mode)
- Minimum measuring fiber length 0.7m
- Rich interchangeable, high reliability detector adapter
- Support network, USB connection etc control methods
- Auto save test data + report, support remote control function

Applications

- Fiber patchcord and connector performance test
- Other optical passive device performance test

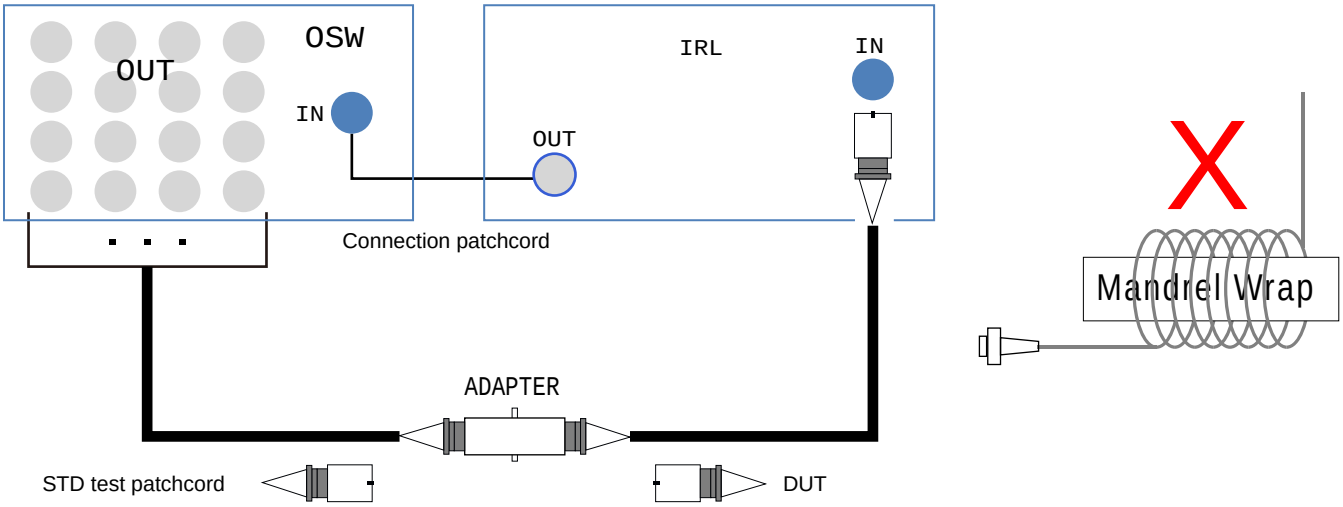
Platform + module design, high scalability

Dimension's 11-slot OMEGA universal optical test platform provides a whole set optical test solution, which is compatible with a wide range of functional test modules such as IRL test module. With hot swappable, programmable, and scalable, easy to maintain&manage, with low overall cost.

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.

RL mandrel-free test, dual wavelength test speed less than 12s（MPO12）

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 wavelength test is less than 12s（MPO12）.

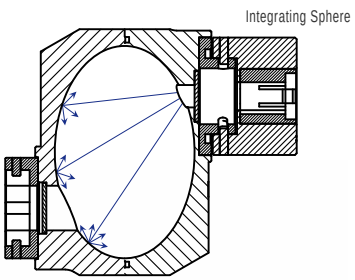


RL minimum detectable down to -80dB(single mode), Minimum measuring fiber length 0.7 m

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		RLM1412A-1FA-24	RLM5456A-1FA-24	RLM-L-1412A-1FA-24	RLM-L-5456A-1FA-24
Product series		Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability*	±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
RL section	RL Range	-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～-65dB:±1.0dB -65～-70dB:±2.0dB	-15～-50dB:±1.0dB -50～-55dB:±2.0dB
Others	Fiber length (Min)	DUT reflections (both ends)>50dB: 0.6m DUT reflections (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	30 minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)			
	Recalibration period	2years			
	Working temperature	10℃～40℃			
	Storage temperature	-40℃～70℃			
	Size	ALPHA platform: 359mm×274mm×115mm,OMEGA platform ;462mmX374mmX171mm Module: 285mmX133mmX71mm			

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

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	
L	Lite
/	Pro

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

Detector type	
1	InGaAs 2mm (Detachable integrating sphere)
2	InGaAs 5mm (Detachable integrating sphere)
4	InGaAs 2mm (Fixed integrating sphere)

Laser wavelength	
0	640nm VFL
1	1310
2	1550
3	1490
4	1625
5	850
6	1300
X	Customized

RL test	
A	Mandrel-free (OMEGA-Standard)
C	Mandrel-free (OMEGA-Lite)

Laser output port	
1	1CH
2	2CH

Laser connector type	
FA	FC/APC
FP	FC/PC

Number of cores	
12	12
24	24
48	48

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

Dimension single fiber IRL meter uses a high stability laser source and a high precision optical power meter for mandrel-free return loss testing and high-speed insertion loss testing. The single-wavelength loss test time is less than 0.6s, and the minimum return loss detection can be achieved -80dB. Includes 6 testing wavelengths for single mode and multiple mode (multiple mode :850nm, 1300nm, single mode :1310nm, 1490nm, 1550nm, 1625nm). RLM fast and accurate measurement function make it an ideal tool for improving production efficiency and quality control.

Main Features

- Platform + module design, multi-application and scalable
- RL mandrel-free test, dual wavelength test speed less than 0.6s
- RL minimum detectable down to -80dB(single fiber, single mode)
- Minimum measuring fiber length 0.7m
- Rich interchangeable, high reliability detector adapter
- Support physical button, touchscreen, network, USB control methods
- Auto save test data + report, support remote control function

Applications

- Fiber patchcord and connector performance test
- Other optical passive device performance test

Platform + module design, high scalability

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, programmable, and scalable, easy to maintain&manage, with low overall cost. Supports many remote control modes, including network, USB, touch screen and physical button , etc.

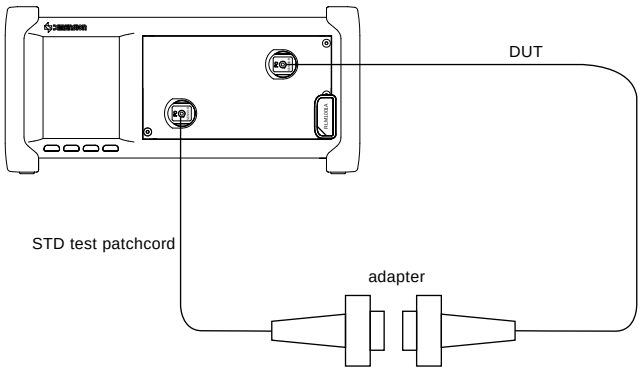
Users can integrate and expand different functional modules in following-up, such as optical switches, stable light sources, POA testers, BER testers, and high-speed optical power meters, to achieve one-stop test for optical devices and other products' various performances.

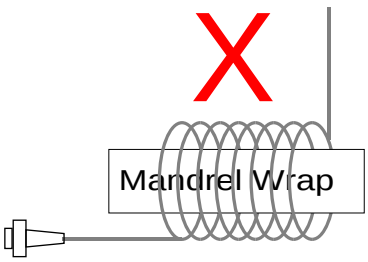
OMEGA test platform

ALPHA test platform

RL mandrel-free test, dual wavelength test speed less than 0.6s

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 engh test is less than 1s(Fast mode:1310/1550 dual wavelength test speed 0.6S).

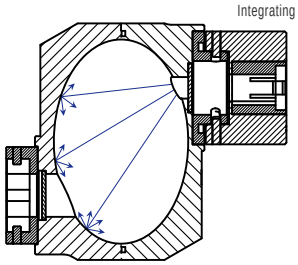




RL minimum detectable down to -80dB(single fiber single mode), Minimum measuring fiber length 0.7m

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).

Integrating Sphere

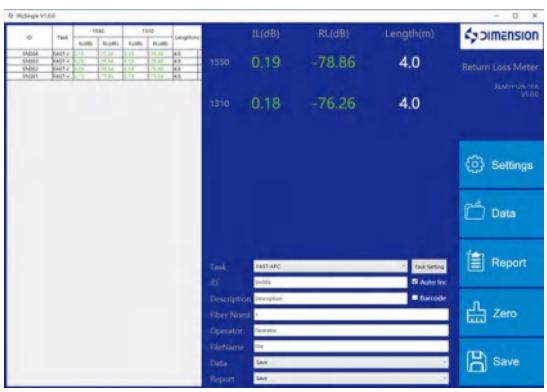


Rich interchangeable, high reliability detector adapter

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 integrat - ing sphere, compatible with MPO/ duplex LC adapters, no need to repeatedly plug and plug in one test.

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		RLM1312A-2FA	RLM5356A-2FA	RLM-L-1312A-2FA	RLM-L-5356A-2FA
Product series		Professional	Professional	Lite	Lite
light source	Fiber Type	SM 9/125	MM 50/125	SM 9/125	MM 50/125
	Wavelength	1310/1550nm	850/1300nm	1310/1550nm	850/1300nm
	Source Type	Laser	LED/Laser	Laser	LED/Laser
	Encircled Flux Standard	NA	IEC-61280-4-1	NA	IEC-61280-4-1
IL section	IL Stability*	±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
RL section	RL Range	-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～-65dB:±1.0dB -65～-70dB:±2.0dB	-15～-50dB:±1.0dB -50～-55dB:±2.0dB
Others	Fiber length (Min)	DUT reflections (both ends)>50dB: 0.6m DUT reflections (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	30 minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)			
	Recalibration period	2years			
	Working temperature	10℃～40℃			
	Storage temperature	-40℃～70℃			
	Size	ALPHA platform: 359mm×274mm×115mm,OMEGA platform ;462mmX374mmX171mm Module: 285mmX133mmX71mm			

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

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

RLM □ □ □ □ □ □ — □ □

Series	
L	Lite
/	Pro

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

Detector type	
1	InGaAs 2mm
2	InGaAs 3mm
4	InGaAs 2mm (Fixed integrating sphere)

Laser wavelength	
0	640nm VFL
1	1310
2	1550
3	1490
4	1625
5	850
6	1300
X	Customized

RL test	
A	Mandrel-free

Laser output port	
1	1CH
2	2CH

Laser connector type	
FA	FC/APC
FP	FC/PC

Eg: RLM1112A-1FA Mandrel-free IRL test module,1310/1550,SM 9/125,InGaAs 2mm, 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/B supports four single-mode wavelengths, and XX should be selected for the two-digit coding.

Programmable Fiber Polarity Tester

Fibre Polarity Tester(FPT) is a programmable fiber polarity testing instrument. Quickly and accurately, FPT can measure the polarity for up to 72 channels passive fibre optical components. With modular design, Dimension FPT is flexible and extendable. Polarity channel account and mapping are configurable. The polarity mapping can also be acquired from existing samples.

Main Features

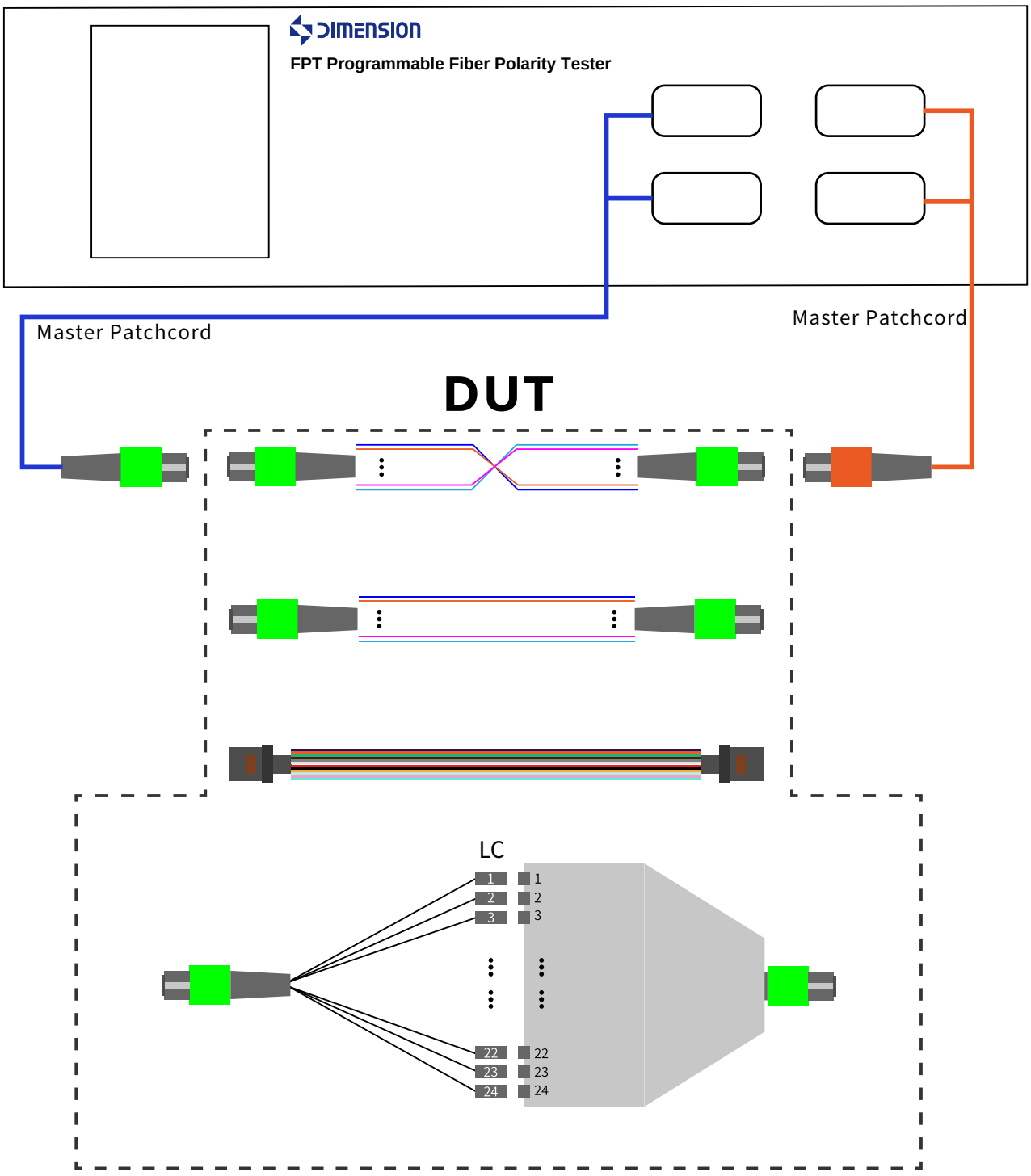
- Programmable Polarity Tester
- Intelligent Self-learning Sample Polarity
- Real Time Testing Result
- Compatible with SM and MM Fibre
- 2~24，2~32，2~72 Channels
- Platform/Modular Design
- No Physical Contact
- Vertical/Horizontal Working
- 20dB Dynamic Range
- 3.5” Touch Screen

Applications

- Polarity Testing for MPO and MTP
- Polarity Testing for Multi-Channel Optical Components
- Polarity Testing for Fiber Optical Modules

Programmable Polarity Testing Mapping

Customer can edit the polarity testing mapping conveniently. Based on the features of the products to be tested, customer can edit the specific polarity mapping and save it for future testing.


DIMENSION
FPT Programmable Fiber Polarity Tester
Master Patchcord
Master Patchcord
DUT
LC
1
2
3
22
23
24
1
2
3
22
23
24

Intelligent Sample Learning Function

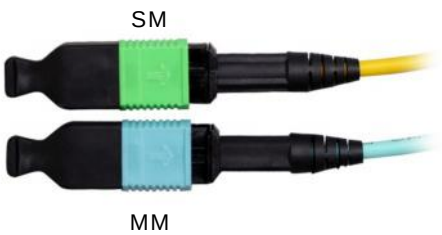
FPT can acquire the mapping setting from the existing product directly, then generates the same mapping configuration as the sample.

Real Time Testing Result

It costs only 50ms for FPT to complete whole testing and result displaying. No action is needed to trigger the testing.

Compatible with SM and MM fibre

FPT is compatible with Single mode and Multi-modefibres, applicable for various applications.



2~24, 2~32, 2~72 Mapping

FPT offers three individual modules to measure 2~24, 2~32 ,2-72channels.

Platform and Modular Design

Replace different modules for different testing functions.

No Physical Contact

Protect FPT and testing devices from damage. Applicable for UPC and APC connector.

Support Vertical and Horizontal Working

Customer can place the FPT vertically or horizontally, based on the available space and working habit.

20dB Dynamic Range

FPT has 20dB dynamic power range. It's capable for high attenuation testing.

Specifications

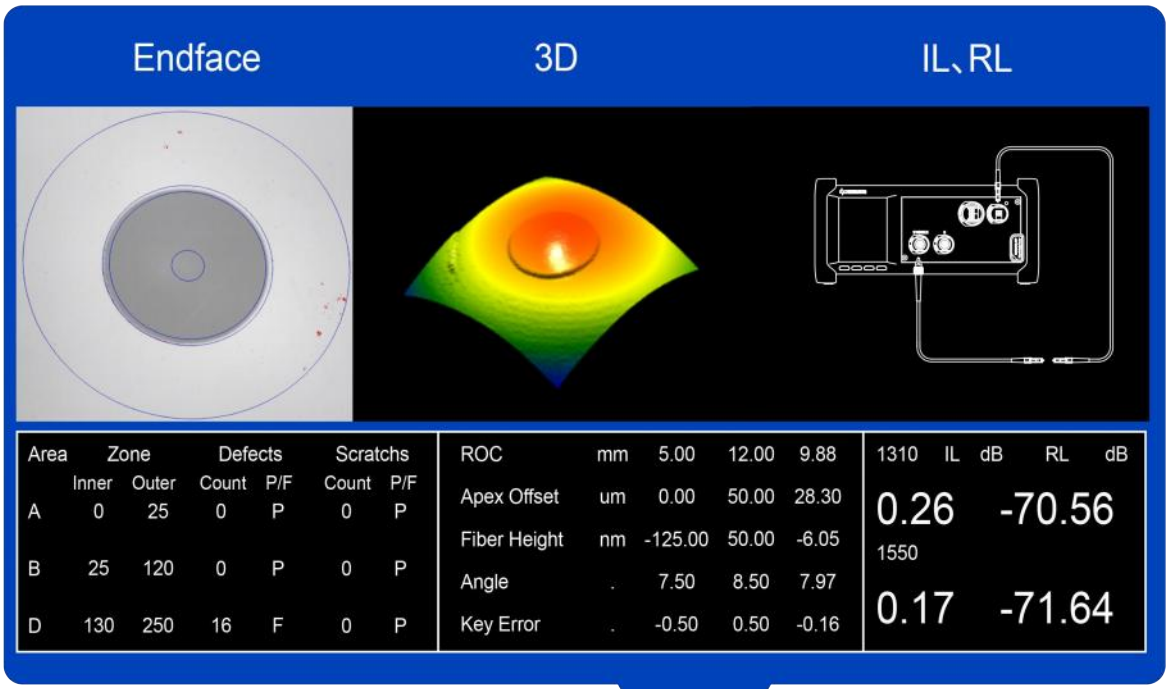
Products	FPT1024A	FPT1032A	FPT1072A
Channels	2 ~ 24	2 ~ 32	2 ~ 72
Fibre Modes	SM、MM		
Optical (Output)	2*MT12	2*MT16	6*MT12
Optical (Input)	2*MT12	2*MT16	6*MT12
Testing Time	<0.05S	<0.1S	
Sensitivity	>20dB		
Communication	USB2.0, Ethernet		
Working Temp	10℃ ~ 40℃		
Storage Temp	-40℃ ~ 70℃		
Power	90 ~ 260V AC		
Size	359mm×274mm×115mm		
Weight	4.05kg		

Order Info

Model	Channels
FPT1024A	2 ~ 24
FPT1032A	2 ~ 32
FPT1072A	2 ~ 72

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

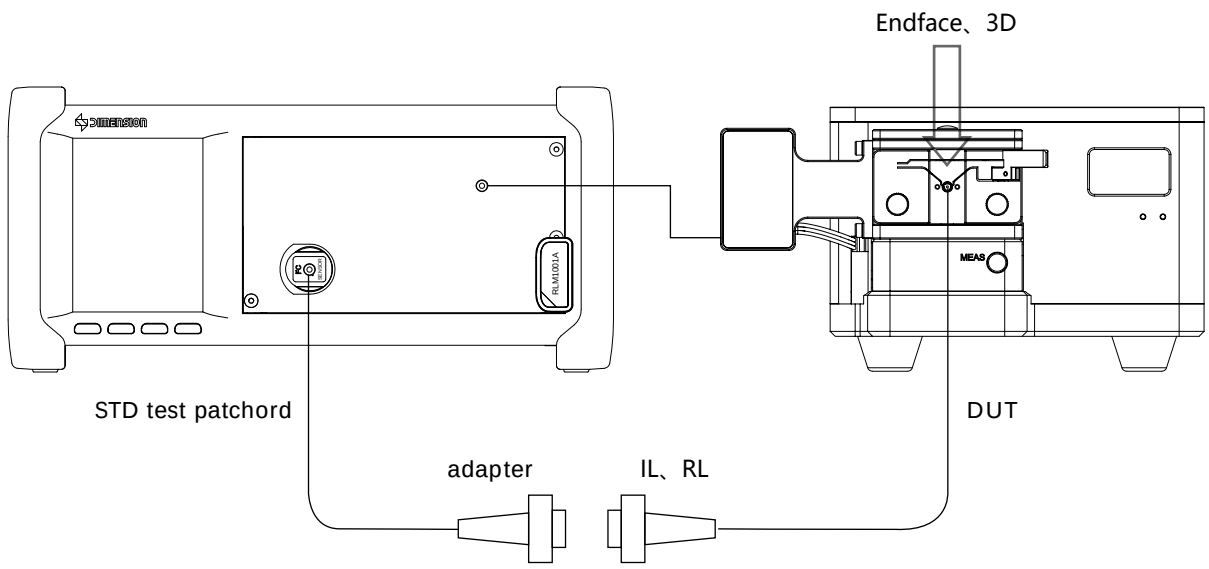
- All-in-one fully automated testing for IL, RL, 3D interferometry, and 2D End-face inspection
- Compatible with variety of connectors
- 400% efficiency increased with less working space and deployment resource
- Minimizes the needs of repeated insertions and removals while testing
- Flexibility to meet 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

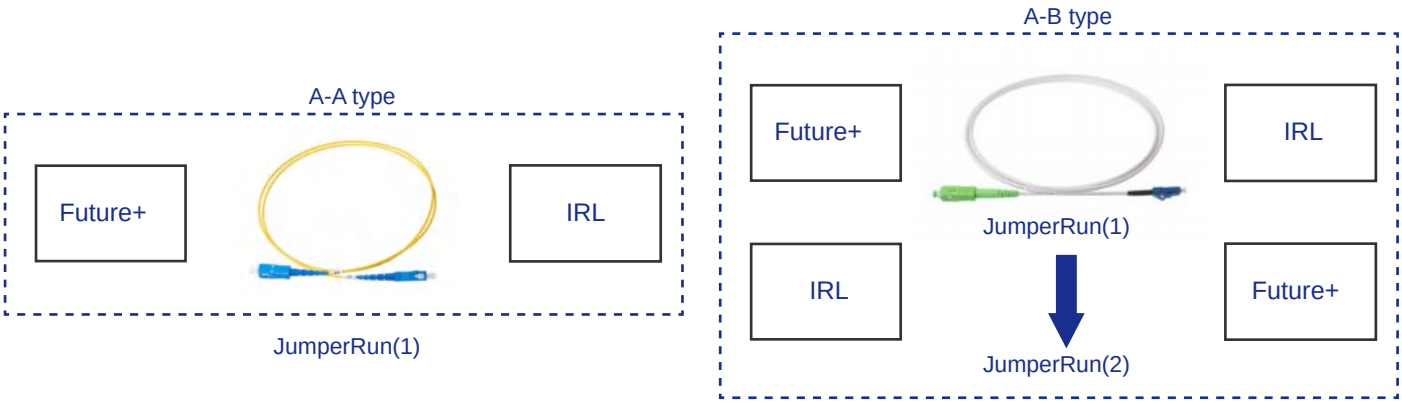
All-in-one fully automated measurement

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.



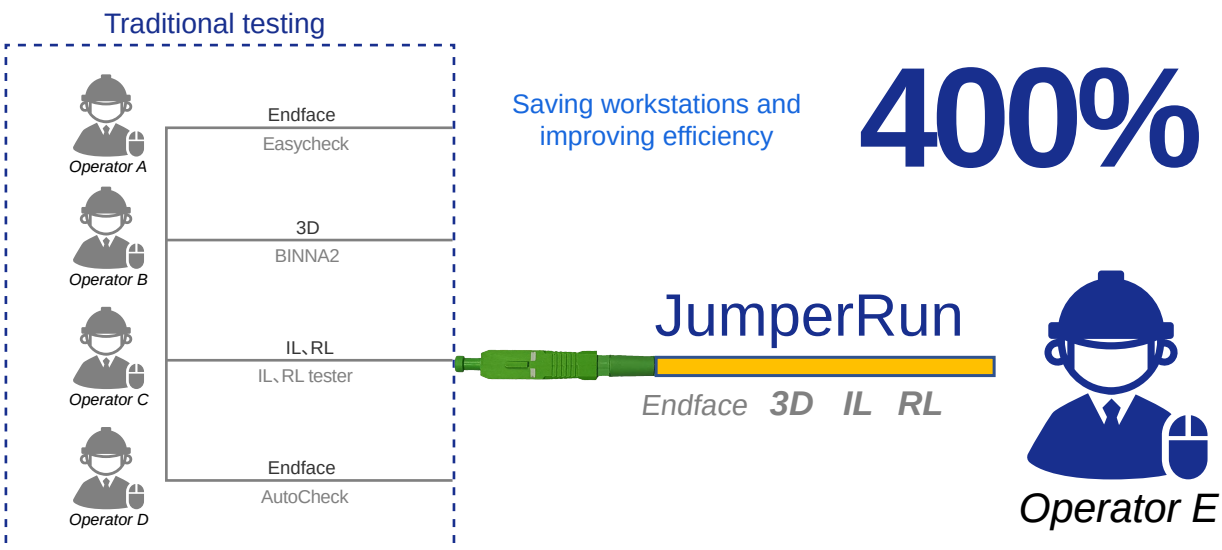
Compatible with variety of connectors

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.

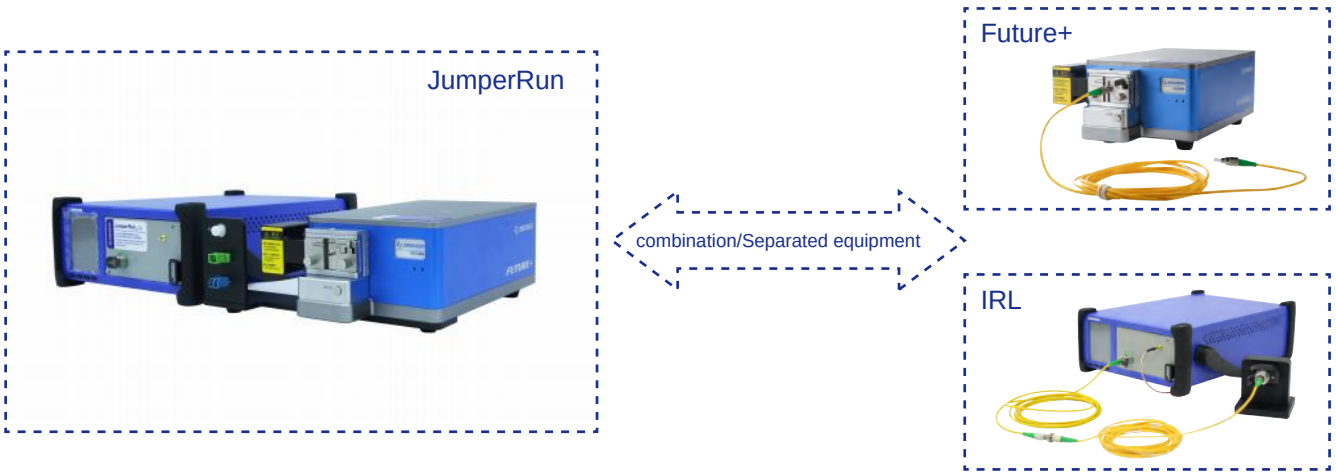


Well protect of the connectors wear

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.

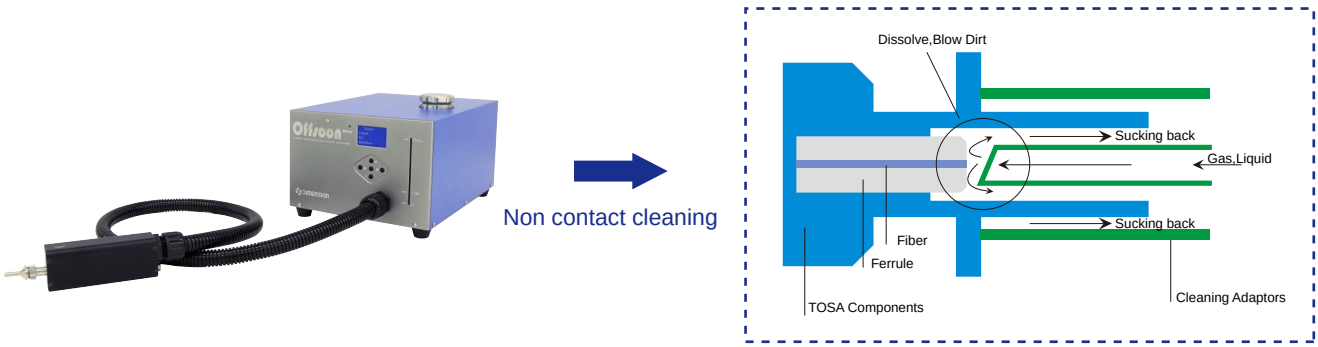
Flexibility to meet variety of demands

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.



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

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 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
	IL Repeatability*	±0.02dB	
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	30 minutes (if the storage temperature is different from the service temperature, the preheating time is 90 minutes)	
	Recalibration period	2years	
	Working temperature	10℃~40℃	
	Storage temperature	-40℃~70℃	
	Size	ALPHA platform: 359mm×274mm×115mm,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

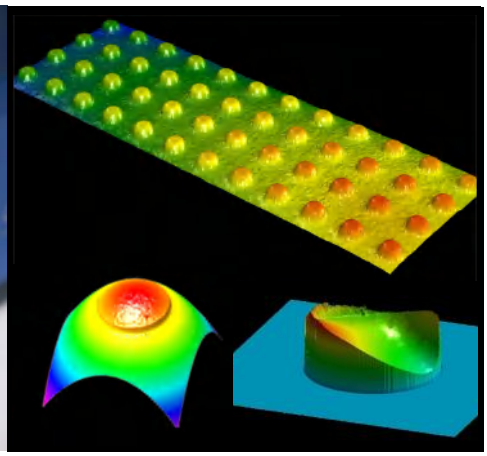
Laser output port	
1	1CH
2	2CH

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

Eg: IRL1112A-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.

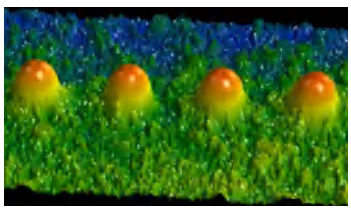
Main Features

- 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

Up to 1.5um image resolution

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



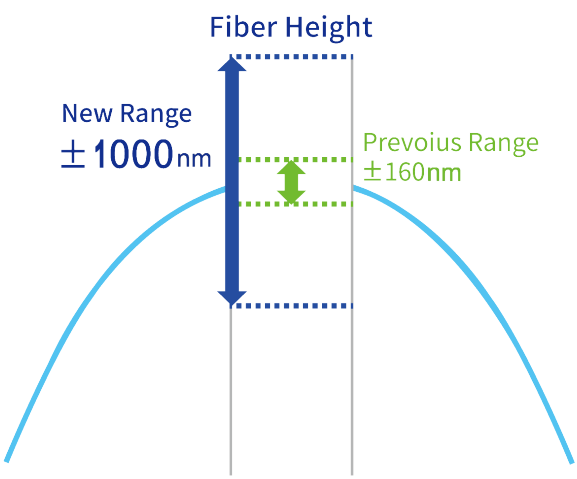
Facets of Multi Channel SM Fiber

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.



High repeat-ability

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

Repeat-ability of Fibre Height, 12 core MPO

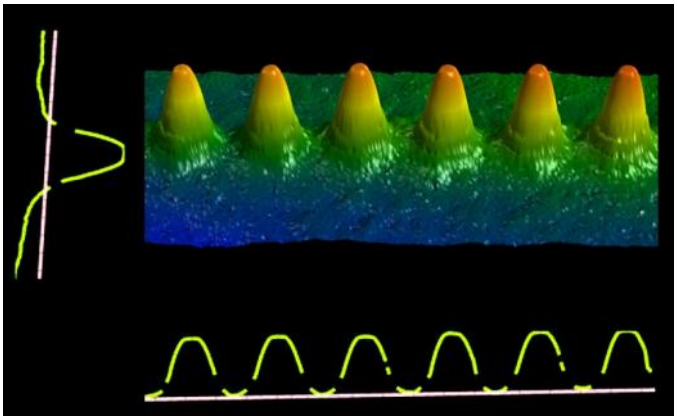
MT Pro	Fiberheight											
ID	Fiber1	Fiber2	Fiber3	Fiber4	Fiber5	Fiber6	Fiber7	Fiber8	Fiber9	Fiber10	Fiber11	Fiber12
Unit	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)	(nm)
Min	1393	1476	1523	1487	1486	1475	1466	1473	1451	1442	1452	1479
Max	1412	1492	1540	1499	1501	1490	1482	1488	1465	1456	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

Accurate testing result

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.

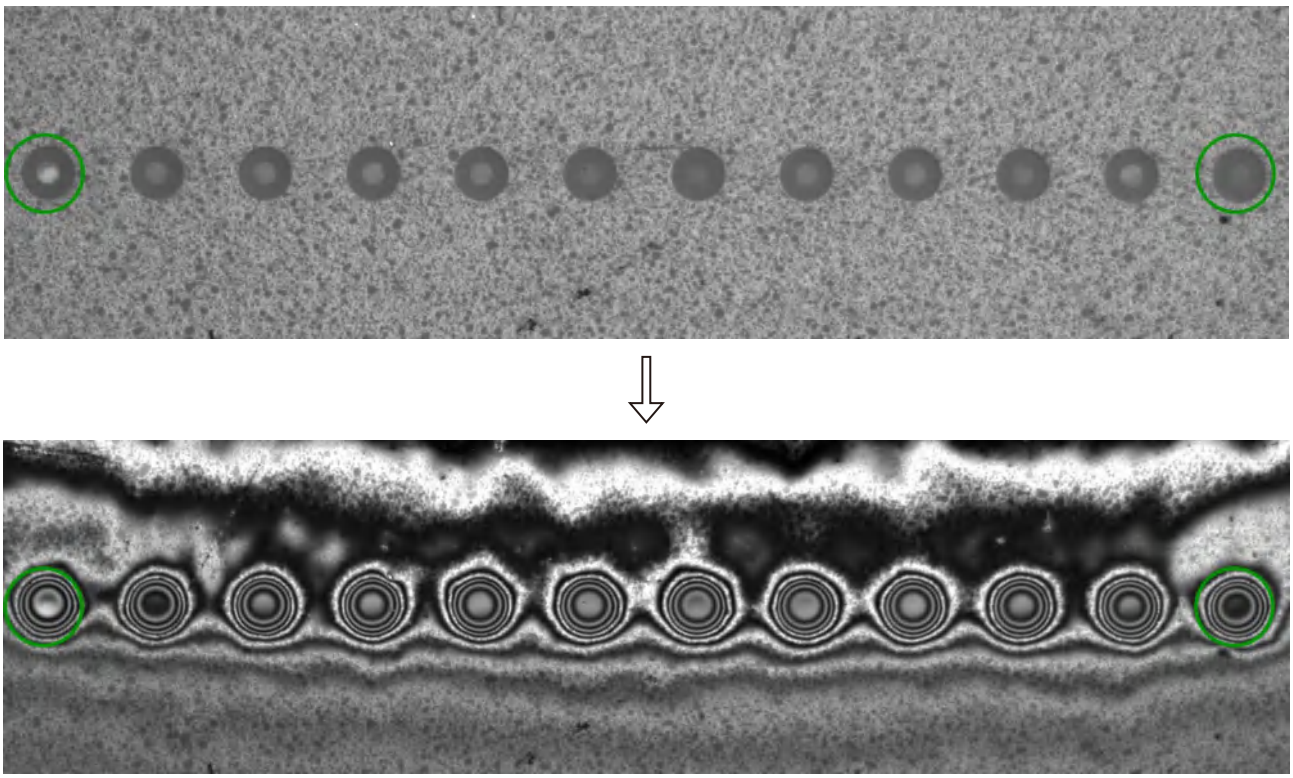


Coredip（nm）	6	7	3	6	4	5

Almost identical Coredip value and fiber morphology

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.



Auto calibration with reference mirror

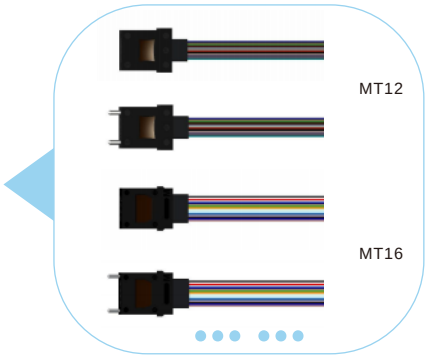
MT Pro applies reference mirror to calibrate the instrument automatically and maintains the peak performance at all conditions. Compared with manual tuning stage and data compensation, the auto calibration is quick and accurate.

Fast and accurate calibration

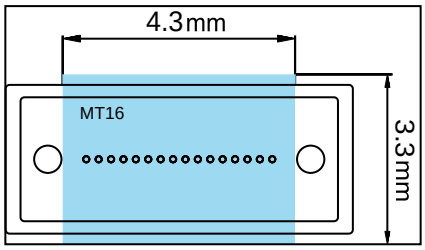
Unique frame mounting fixture for MT ferrule

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

Frame Mounting



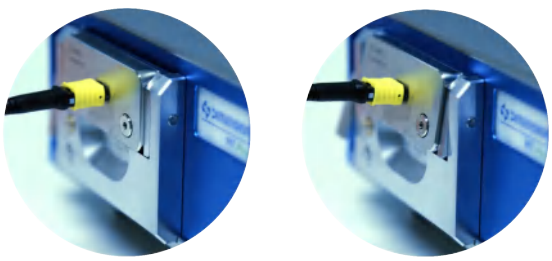
1. The frame mounting fixture for MT ferrule is compatible with MT4, MT8, MT12, MT16, MT24, MT32, MT48 and MT72. Only one fixture is needed to test all MT ferrules.
2. Committed accuracy and repeat-ability for Ferrule angle measurement .
3. Endurable and long life time fixture.
4. Safe to PIN hole of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



Wide enough FOV of MT16 measurement

Quick switch between 0° and 8° fixtures

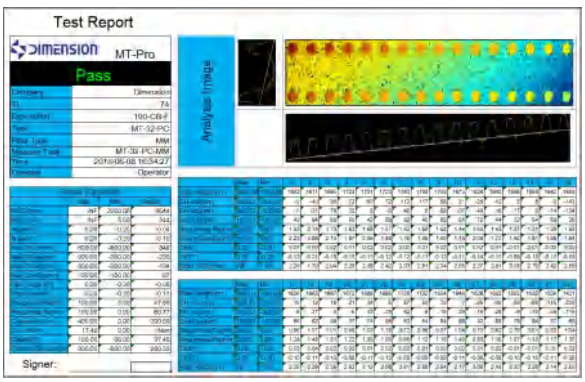
With the special designed fixture platform, 0° and 8° fixtures can be switched quickly. No extra calibration is needed. The high repeat-ability and reproducibility are guaranteed. The fixture platform is compatible for all types of MT/MPO PC and APC products.



Quick switch between PC and APC

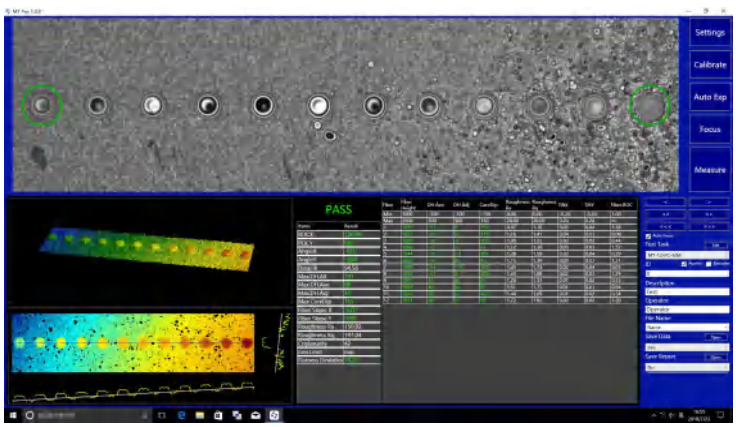
One click operation

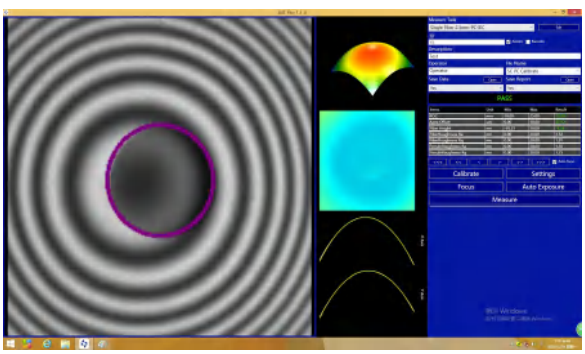
Only one clicking is needed to complete the whole measurement procedures, including auto focus, scanning, analysis and all calculations. The testing report will be ready in seconds.



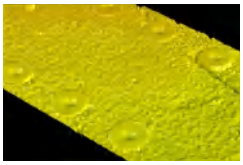
Intuitive software interface and excellent 3D rebuilding

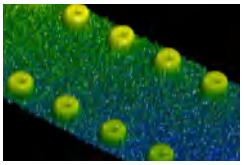
MT Pro applies intuitive and modularized software interface. The real time image, 3D profile, cross section, roughness and testing results are displayed in the user interface. The operation and configuration are convenient and user-friendly.

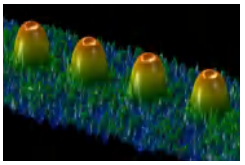


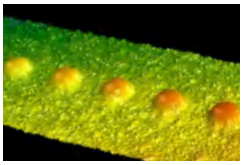


The details of the 3D profile visualize the polishing result and helps to analyze and improve the polishing process.


Endface polishing and damage


Large Core dip


Slight Core dip


Core dip in SM

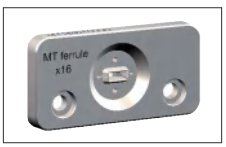
Quick measurement

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)

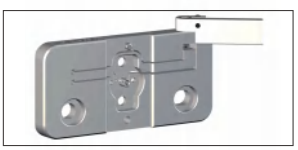
MTP-16 Connector

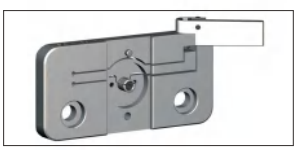


MT ferrule X16(PIN positioning)

MT ferrule X12(PIN positioning)

MTP/MPO Connector


LC

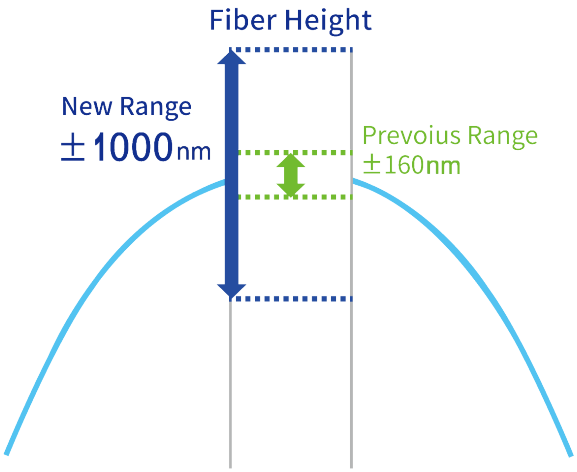

SC

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

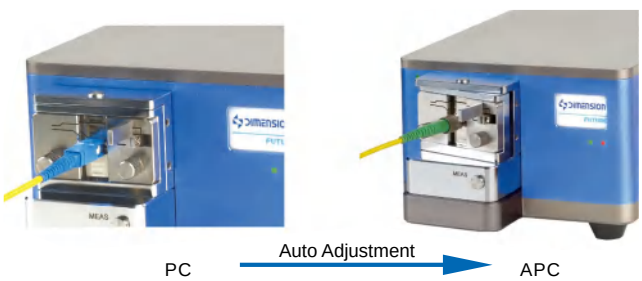
- Used for testing optical fiber devices during polishing and assembly.

-1000nm~1000 nm Fiber Height

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

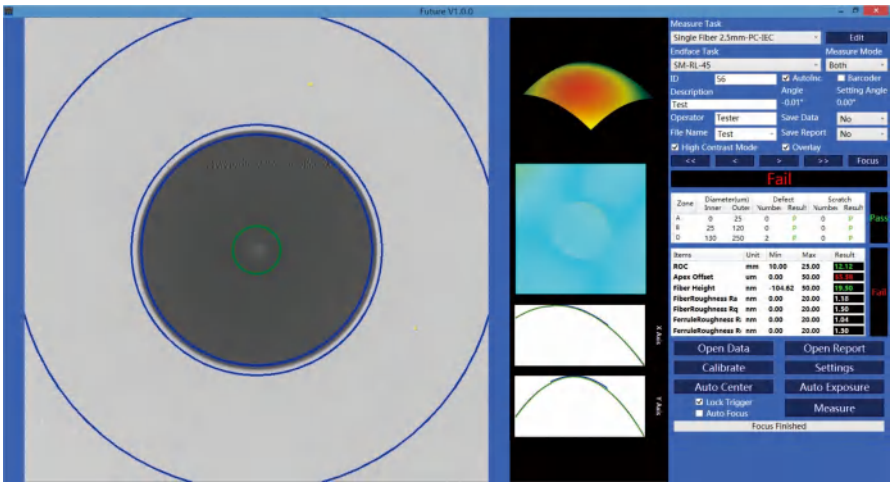
0~12° APC Angle Auto Tuning

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



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

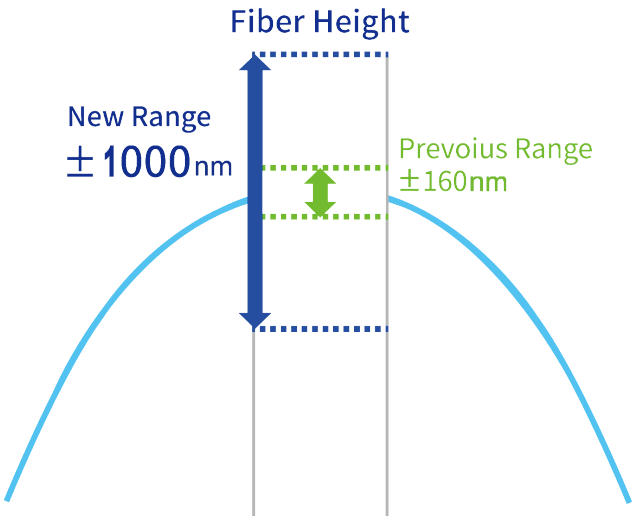
The calibration for FUTURE is fully automatic. After each calibration, FUTURE will compensate on the software and hardware setting automatically.

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	

* Sigma Values

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

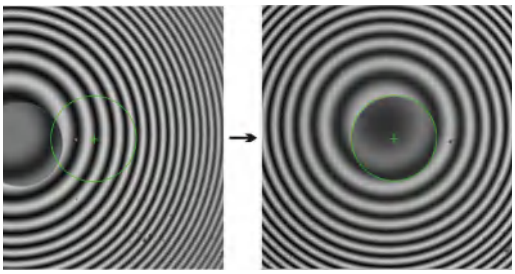
Applications

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

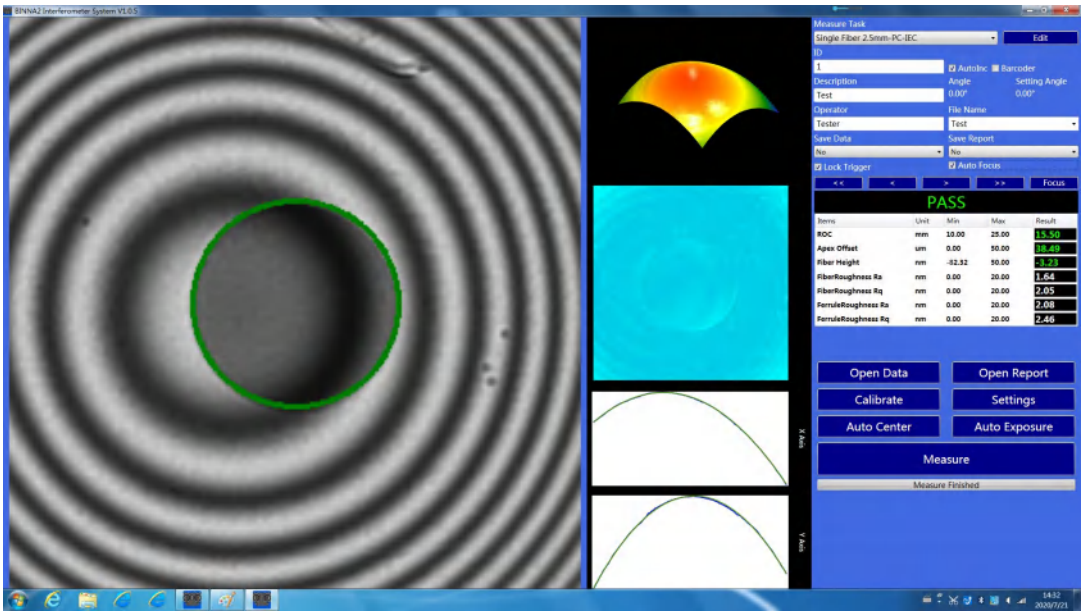
-1000nm~1000 nm Fiber Height

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

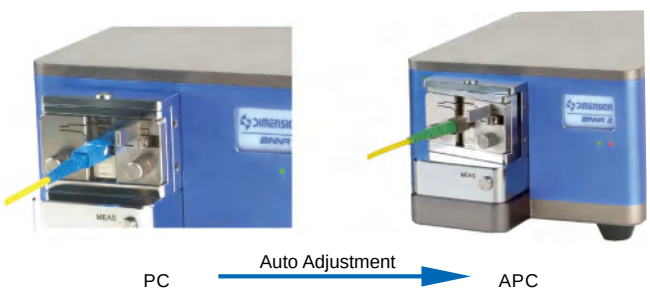
Beside of Clicking the MEASURE button, operator can press the button next to fixture to start the measurement. BINNA2 can also be configured to start the process automatically, after the fixture is detected to be locked.

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

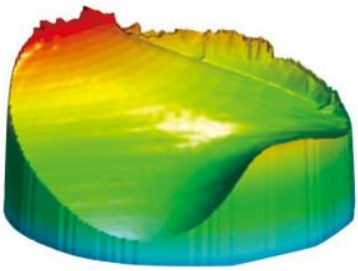
The accuracy of APC angle control is 0.003° . The angle tuning is automatic with preset range from 0~12° .

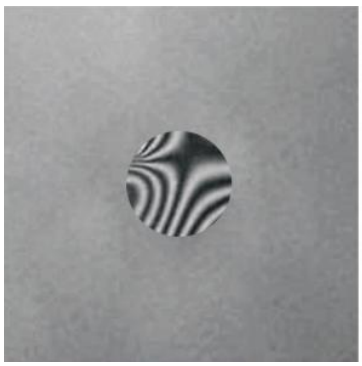
Self-adapted Locking Strength

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.



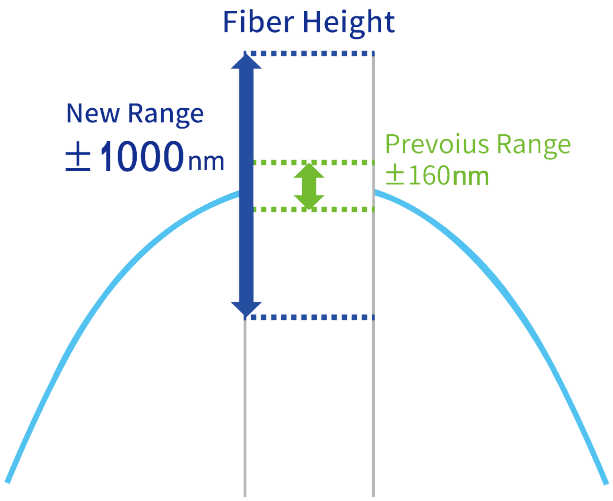


Specifications

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

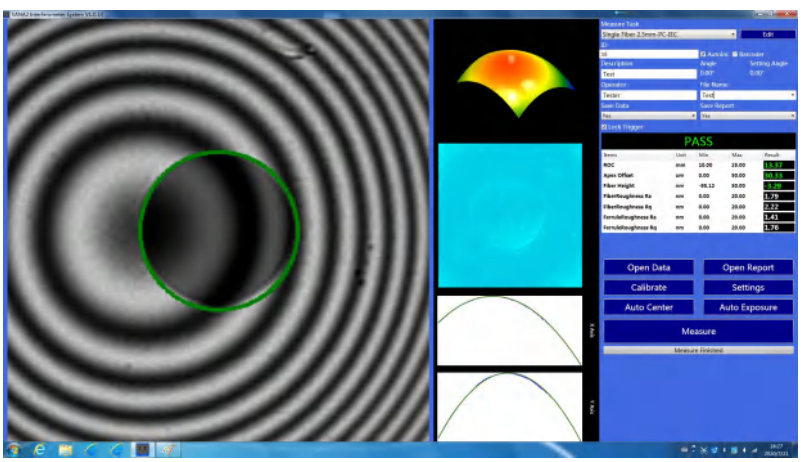
- Fiber End-face Interferometer
- Automatic Measurement;
- 0~12° APC Angle Auto Tuning;
- Auto Centering Images;
- Cleave Angle Measurement;

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.

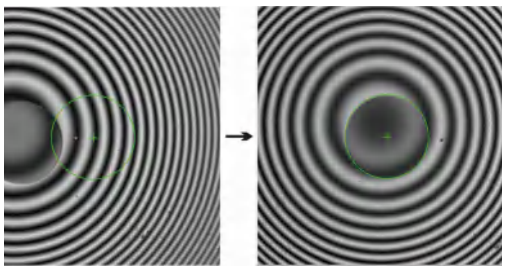


-1000nm~1000 nm Fiber Height

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

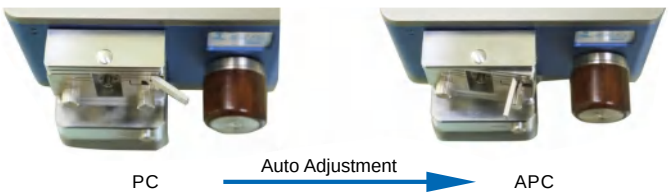
Auto Centering Images

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

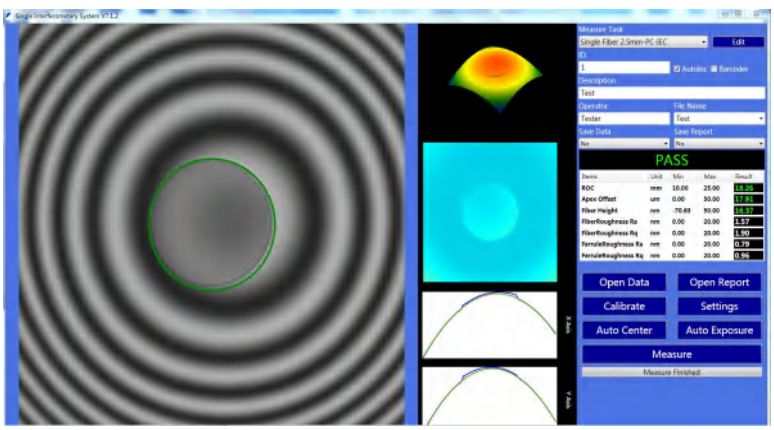
- Portable fiber endface interferometer
- 1 USB needed to provide data link and power supply
- Auto centering fiber
- 2s need for single measurement
- Bare fiber and bare ferrule measurement
  Easy PC /APC changing Series of fixtures

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.

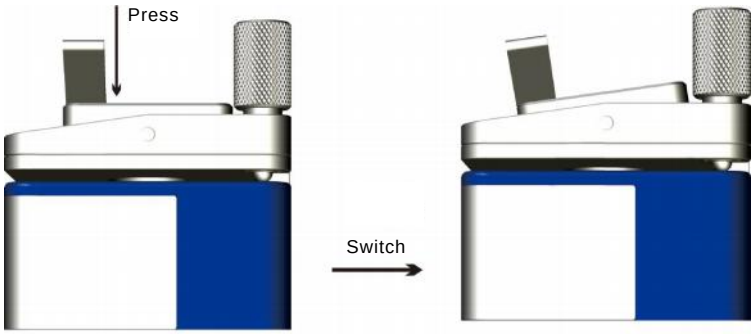


User Friendly Interface and Excellent 3D Image

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 Abilit

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)	3~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 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

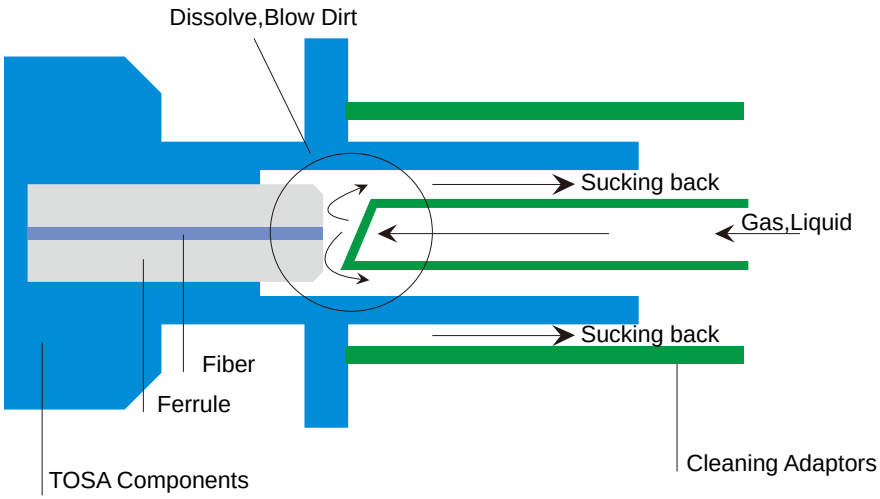
- Over 98% High Cleaning efficiency
- Non-contact to protect fiber endface
- Built-in High-precision filtering system
- Equipping display and keyboard on the surface
- Time editable for solvent spraying, gas jetting, and sucking back
- Support Single/Multi-fiber endfaces cleaning
- Support fully automated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

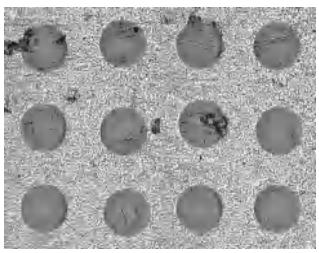
Applications

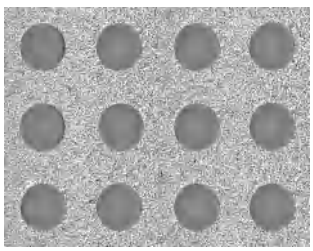
- Fiber connector cleaning
- Optical module cleaning
- TOSA/ROSA cleaning
- MT ferrule cleaning

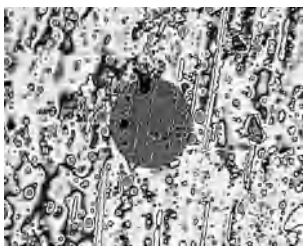
Non-contact, Over 98% High Cleaning efficiency

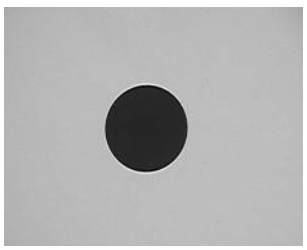
Offsoon Pro uses a precise non-contact gas-solvent-gas sequence to blast and remove contamination particle with Over 98% High Cleaning efficiency, and the entire cleaning process is only 2 seconds.




Before cleaning

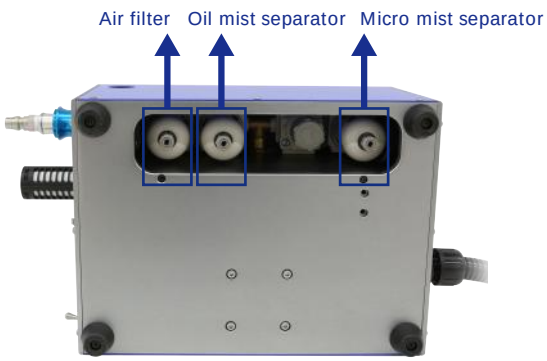

After cleaning


Before cleaning


After cleaning

Built-in high-precision filter system

OffsoonPro is equipped with high-precision air filter, oil mist separator and micro mist separator to ensure that there is no external dirt during the cleaning process, and the filter devices are located at the bottom ,convenient to be replaced and cleaned easily.



Bottom view

Equipped with a display and setting buttons

Offsoon Pro is equipped with a display that can intuitively display the cleaning times and the duration of solvent spraying, gas jetting, and sucking back. It has built-in default parameters for common cleaning types for users to refer to.

+ : Increases in value —: Decrease in value

◀ : Cursor to the lef ▶: Cursor to the right

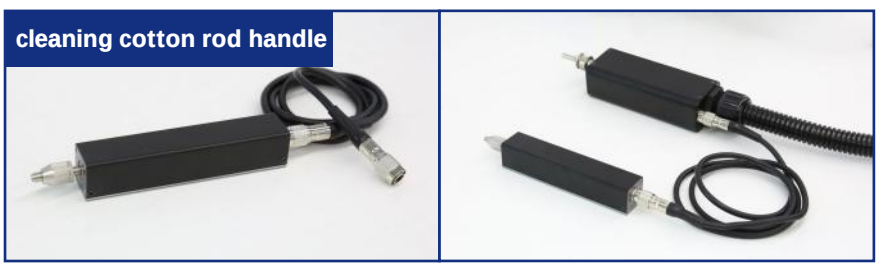
OK : It's editablewhen the cursor blinks, you can press "OK" to exit the editing after the parameter setting is completed

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

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.

cleaning cotton rod handle



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 ,CO ,or air
Gas Pressure	0.5Mpa—1.0Mpa
Power Consumption	15W
Operating temperature	+5℃~+35℃
Storage temperature	-10℃~+55℃
Power Consumption	DC 24±0.5 V
Cleaning time	2S
weight (including handle)	7.75Kg
Volume	Mainframe: 378mm X 200mm X 162mm Handle: 166mm X 43 X 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

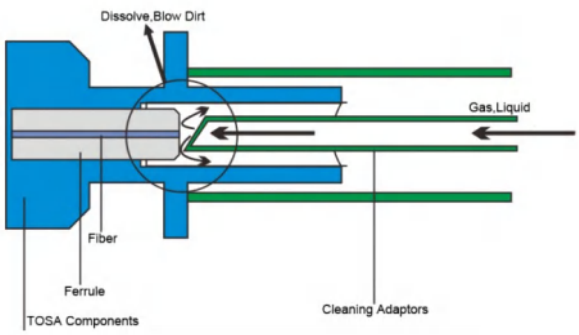
- Non-contact to protect fiber endface
- Over 95% High Cleaning efficiency
- Safety and humanized design
- Easier operation
- Fully functional, one key operation
- Various cleaning tips

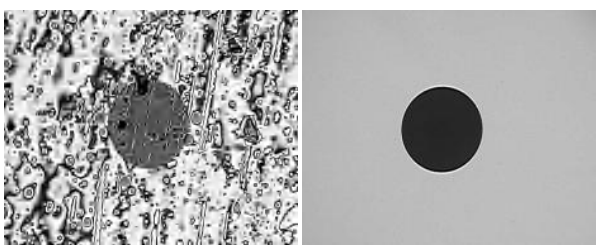
Applications

- 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.





Before After

Over 95% High Cleaning efficiency

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

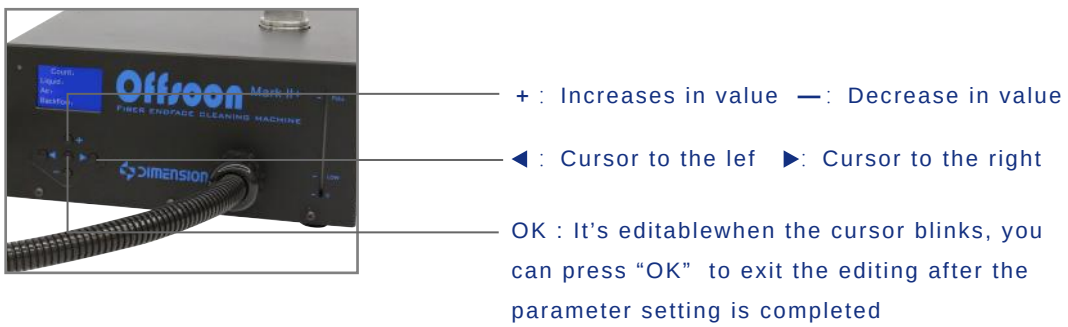
Safety and humanized design

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 N2, CO2, or air
Gas Pressure	0.4MPa-0.6MPa
Power Consumption	5W
Power Consumption	+5℃~+35℃
Storage temperature	-10℃~+55℃
Power	DC 12±0.5 V
Cleaning time	2S
weight	6.05KG
Volume	Mainframe,W205mm*H92.5mm*L256mm Handle,W24mm*H45mm*L110mm

SmartCheck Integrated Fiber Endface Inspector

Smartcheck is the first intelligent endface inspector developed by Dimension Technology. It has many automatic intelligent functions such as auto analyze, auto focus and auto change fiber functions. It makes inspection smart and efficient.

Main Features

- Automatic Analysis
- Automatic Decision
- Automatic Focusing
- Automatic Fiber Switch
- High Test Speed: 5S for 12 core MT connector
- Easy exchanged between PC & APC,
- Multi fixtures for most types of connectors

Automatic Analysis

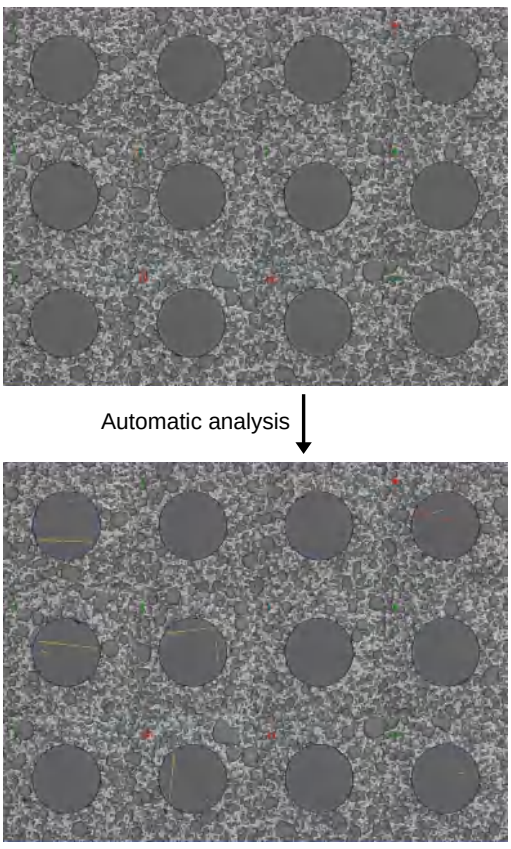
With advanced software algorithms, SmartCheck can detect and judge the slightest defects and scratches on the endface accurately and automatically without manual intervention.

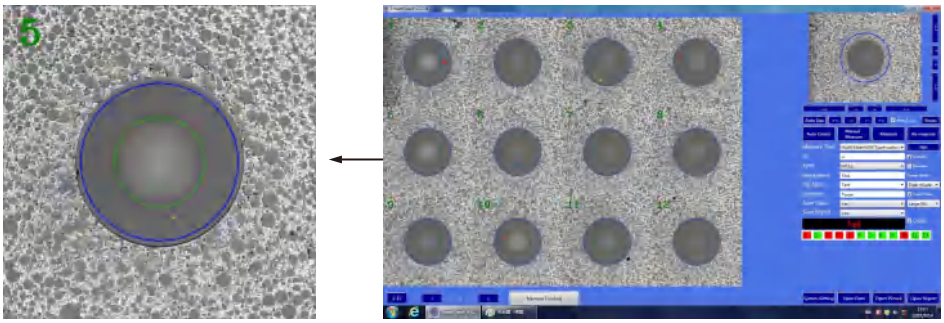
Automatic Reporting

SmartCheck can generate data and reports in Excel format for each measurement automatically, which can make each inspection easy to record and traceable.

Applications

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





High Test Speed

With well designed optical system and automatic platforms, Smartcheck only needs 5s to test 12 core multi-fiber connectors efficiently.

One-click Operation

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

High Definition Images

Equipped with high quality optical components and high solution CCD, SmartCheck can get the ultra clear images to ensure the accuracy of inspection. With locked USB wire, Smartcheck can keep a stable data connection, and work well under vibration condition.

Real-time Statistic System

Designed by server/user way, Smartcheck can transmit the testing results to the operator for real-time browsing by internet to help monitor and control the quality.

Customizable Inspection Standard

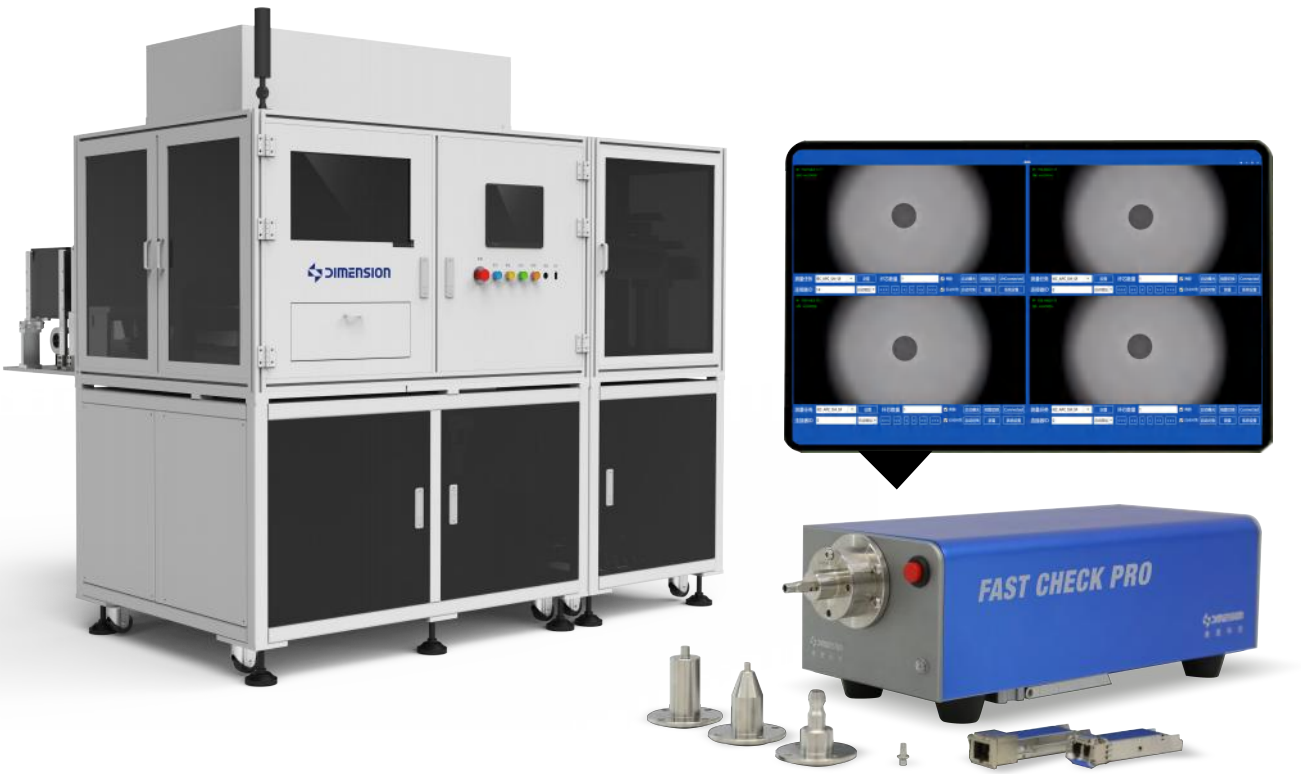
Smartcheck offers many kinds of judgment standards to meet the customized needs of different customers. You can set and adjust the range of the zone, quantity, length and width of the scratches, quantity and size of defects easily, which will save labor time and improve production efficiency.

Specifications

Item	Parameters	
Type	400X	200M
Magnification	20X	10X
Resolution	0.27um	0.54um
Testing Connectors	Singer fiber, MTRJ, MPO, MTP（2-72 core）	Multi-core optical module
Testing Speed	5s (12 core,excluding the auto focusing time)	
Scan Distance	6mmX15mm	6mmX3mm
Operating temperature	-10℃~ 55℃	
Storage temperature	-20℃~ 60℃	
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

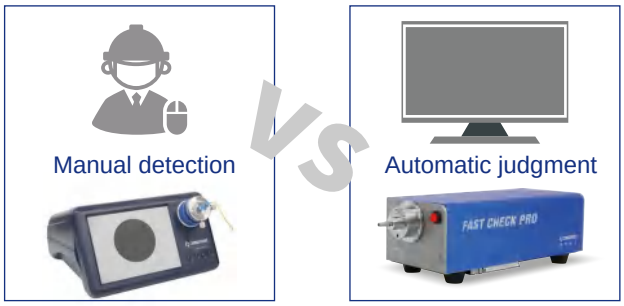
- Inspection of optical fiber connectors
- optical transceiver modules
- TOSA/ROSA components, etc.

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.

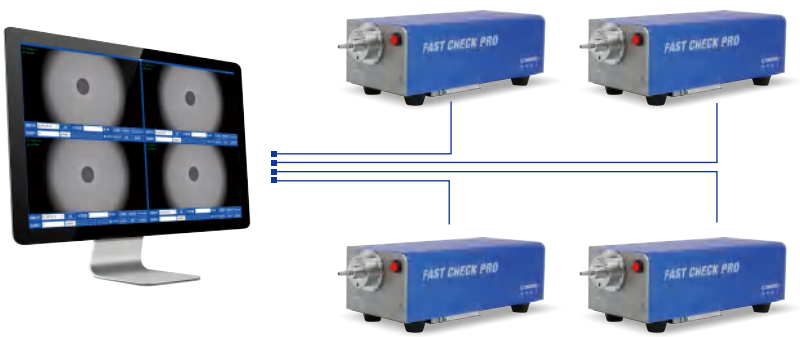


The image quality is clear

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℃~ 40℃
Storage temperature	-20℃~ 55℃
Voltage	DC 24V
Weight	2.7kg
Size	286mmX101mmX86mm

EasyCheck V2 Digital Fiber Endface Inspector

Digital solution

High resolution

Network transmission

Support scan gun

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 ' s EasyGet Digital handheld fiber probe , scan gun or foot switch, etc.

Main Features

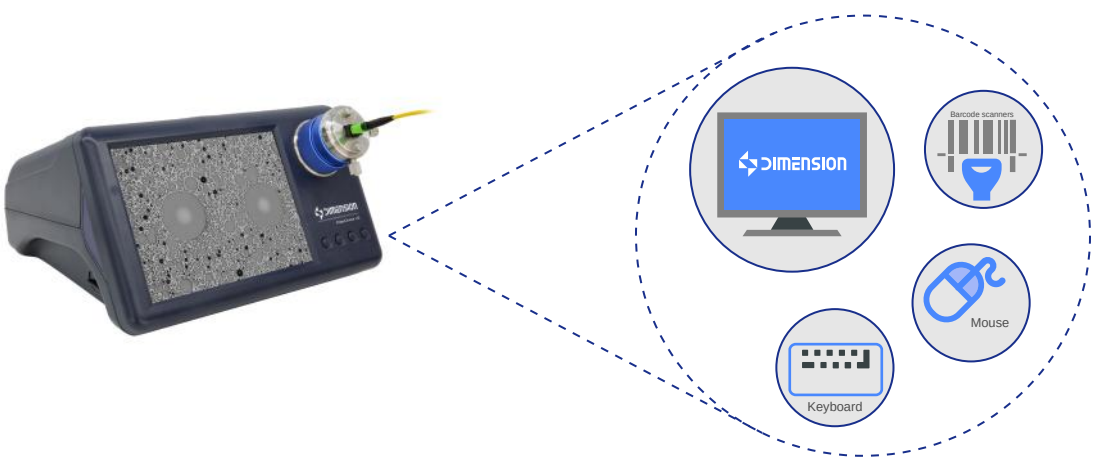
- Digital solution with high image resolution and low noise
- Stable performance, good consistency, low failure rate
- Stored images clearer
- Support SD card, U disk and network transmission
- Inspect female connectors with Dimension ' s EasyGet Digital probe
- More accessibility features
- Multiple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

Applications

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

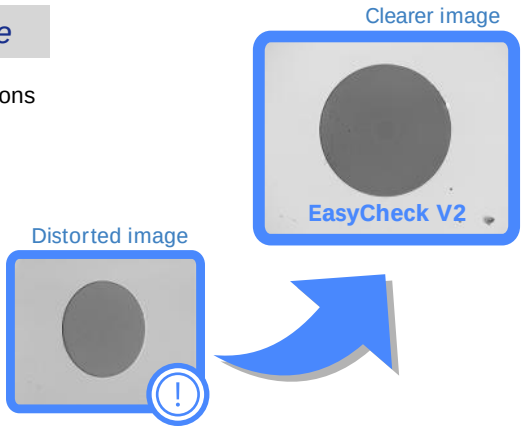
Excellent image quality

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.

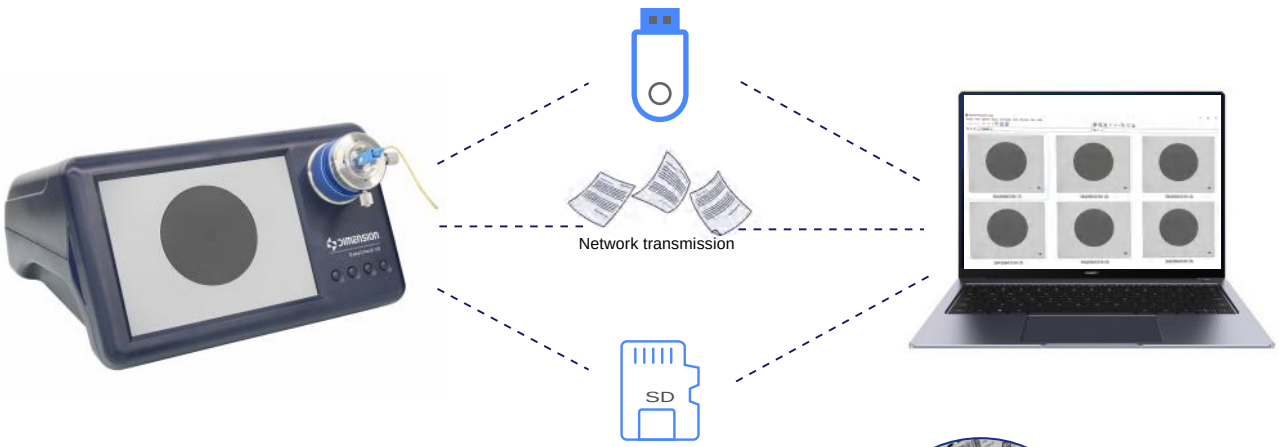


Image input and output

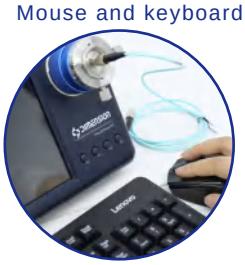
EasyCheck V2 provides image input and output functions, which can be connected to the HDMI interface display screen to meet the special needs of users; it can be interconnected with EasyGet Digital handheld fiber probe to easily inspect various female connectors.

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



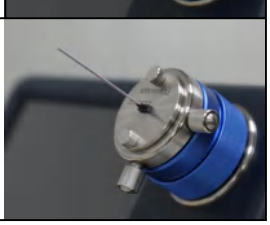
HDMI

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

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	270mmX245mmX155mm

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

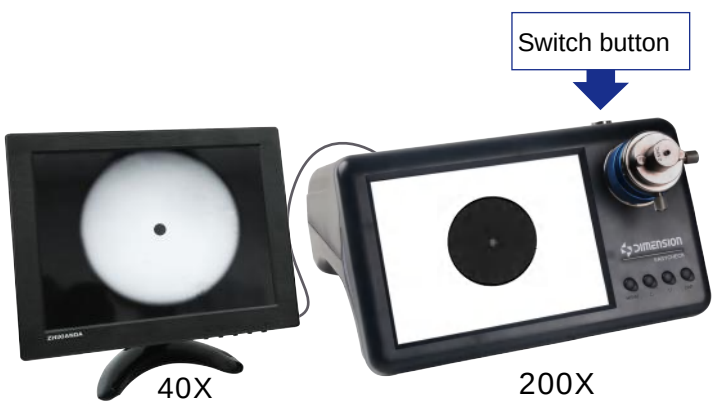
- Dual Magnification Inspector
- High definition image
- Various interface designs
- Automatic scan code to store picture(EC400/200)
- Optional foot switch to switch magnification(EC400/200)

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/RO-SA etc.

EC200/80KML

Various interfaces

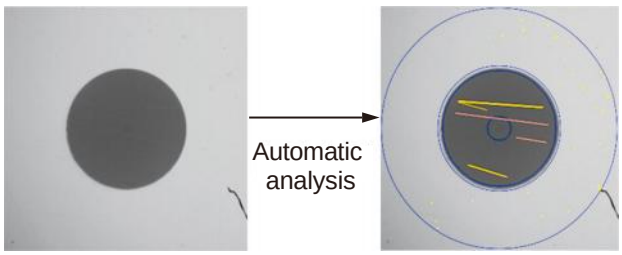
Convenient auxiliary functions(EC400/200)

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	O		O	O
Focus	Manual		Manual	Manual
Image Output	Digital		AV OUT	AV OUT
Monitor	8 ” TFT 800*600 PIX		8 ” TFT 800X600 PIX	8 ” TFT 800*600 PIX
Interface	3*USB、1*SD、1*Ethernet		——	——
Power consumption	3W		3W	3W
Working Temperature	-10℃~ 40℃		-10℃~ 40℃	-10℃~ 40℃
Storage Temperature	-20℃~ 55℃		-20℃~ 55℃	-20℃~ 55℃
Power Supply	DC 12V		DC 12V	DC 12V
Weight	1.6kg		1.6kg	1.6kg
Size	270mmX245mmX155mm		270mmX245mmX155mm	270mm*245mm*155mm

AutoCheck Integrated Fiber Endface Inspector



AutoCheck is the first intelligent integrated fiber end-face inspector developed by Dimension Technology. With the advantages of Dimension image analysis software and high performance embedded system, AutoCheck can identify the tiny defects accurately, conveniently and simply. The fiber end-face inspection complies with IEC standard and customized criteria.

Main Features

- Automatic Analysis
- Automatic Reporting
- Android Embedded System
- Built-in IEC Criteria
- Wireless and Wired Internet Access

Applications

- Optical fiber connector endface inspection

Pre-set IEC Criteria

AutoCheck offers IEC and customized criteria for fiber optic endface inspection. The latest IEC standard is configured as the default criteria. Just select the criteria as you want, click the Measure button, then you can get the testing results with high accuracy, reliability and repeatability.

Automatic Analysis

AutoCheck can detect the tiny defects, marks and scratches on the images totally automatically and precisely without human intervention.

Multi Accesses to Testing Result

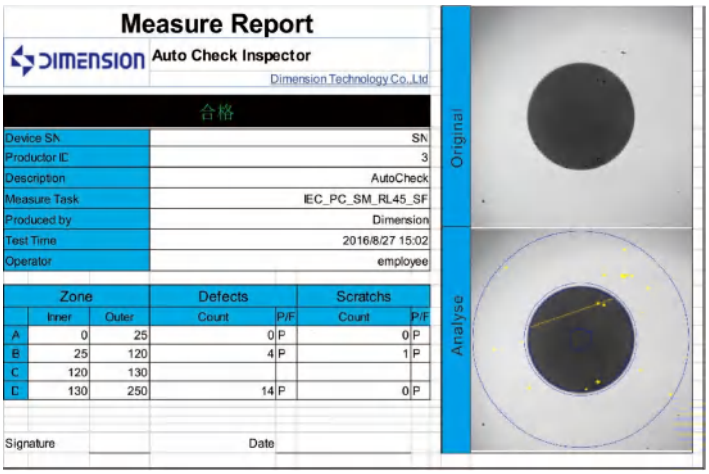
The testing reports will be saved on SD card or server by wireless or wired internet. It's convenient to document the testing results for reference in the future. The universal interface design has more capability and compatibility to inspect different connectors and modules.

Android Embedded System

AutoCheck is a stand-alone Android embedded system. No extra parts are required to perform inspection and reporting. System monitoring and upgrading are convenient and simple.

Intelligent Inspection

AutoCheck can be configured to start the inspection automatically. After the position of fiber endface locked, AutoCheck will focus and center the image automatically, then start the measurement.



Measure Report

DIMENSION Auto Check Inspector

Dimension Technology Co.,Ltd

合格

Device SN	SN
Productor IC	3
Description	AutoCheck
Measure Task	IEC_PC_SM_RL45_SF
Produced by	Dimension
Test Time	2016/8/27 15:02
Operator	employee

Zone			Defects		Scratchs	
	Inner	Outer	Count	P/F	Count	P/F
A	0	25	0	P	0	P
B	25	120	4	P	1	P
C	120	130				
C	130	250	14	P	0	P

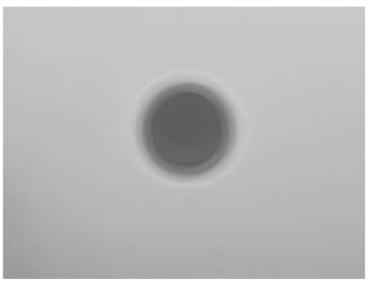
Signature Date

Specifications

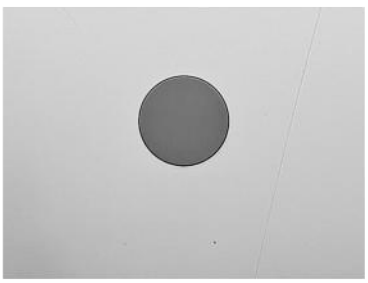
AUTOCHECK has different configurations like 200x or 400x magnification, fixed or adjustable X/Y positions. Refer the bellowing table for the details.

Item	AC200	AC400
Magnification	200X	400X
XY Adjustable	O	O
CCD Resolution	1.3million Pixel	
Image Analysis	Auto	
Focusing	Manual	
Image format	Digital	
Power consumption	3W	
Operating temperature	-10℃ ~ +40℃	
Storage temperature	-20℃ ~ +55℃	
Interface	3XUSB, 1XSD, 1XEthernet	
LCD Display	8″ TFT 800*600 PIX	
Power supply	DC 12V	
Weight	1.6kg	
Size (HXWXD)	270mmX245mmX155mm	

EASYCHECK AF
Autofocus Fiber Endface Inspector



Autofocus



Button autofocus

Auto trigger focus

Dimension launches EasyCheck Autofocus(AF) Fiber Endface Inspector for speedy and accurate visual inspection. In manufacturing of optical components, the widely used manual focus inspector is usually the bottom neck of testing efficiency. The operation of manual focus inspector relies on the experience of the operator, it takes a longer inspection time and the inspection accuracy could be various depending on the training level. Easycheck AF with new digital video solution improves the inspection efficiency with high resolution image and precise auto focus procedure. The view-angle adjustable monitor and foldable design help to make the inspector more user friendly.

Main Features

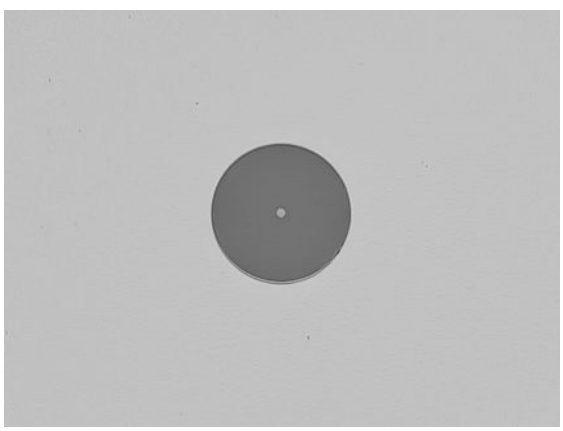
- Fast-autofocus，Improve the efficiency of visual inspection
- Vertical foldable screen，Improve testing experience
- Digital solution with high image resolution
- Convenient adapter storage
- Network accessible
- Record traceable
- Various and compatible adapters
- Selectable magnifications: 80X, 200X

Applications

- Visual Inspection for Fiber connectors, Transceivers, TOSA/ROSA.

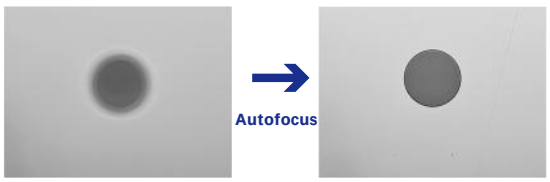
Excellent image quality

EasyCheck AF adopts the digital video solution to improve image quality, resulting in clearer images, lower noise and higher contrast in fiber endface inspection.



Fast-autofocus, Improve inspection efficiency

Offers one-click autofocus mode and fully autofocus mode. Simplifies the visual inspection, improves the testing accuracy, consistency and efficiency.



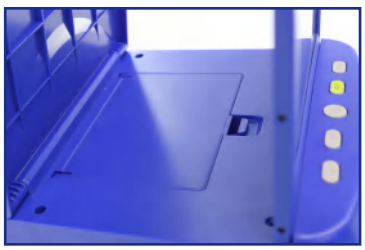
Button autofocus　　Auto trigger focus

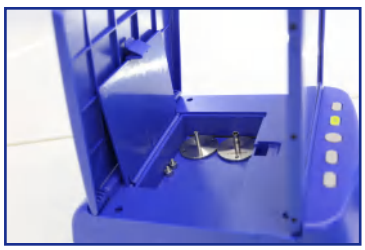
View-angle adjustable monitor, Improve testing experience

The view-angle of the monitor can be adjusted individually to be more user-friendly. EasyCheck AF can be fully folded for easy storage and transportation.

Built-in storage warehouse

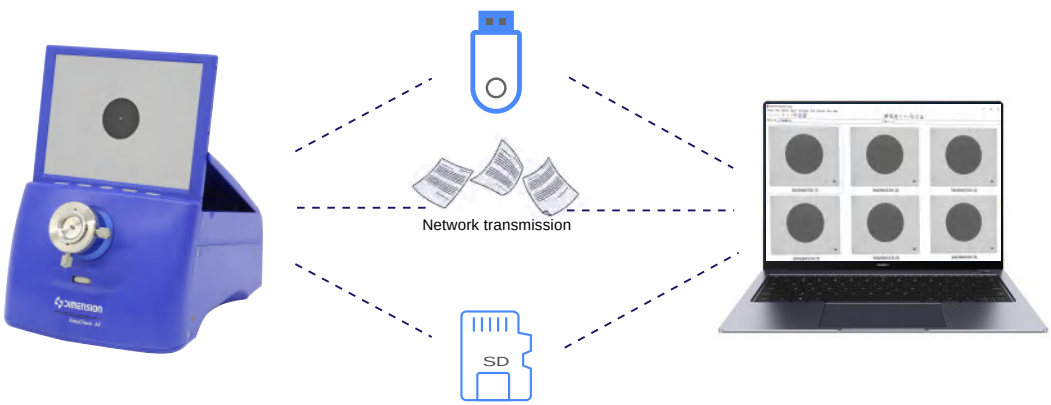
EasyCheck AF is compatible with multiple interfaces, and the built-in accessory storage warehouse is convenient for interface storage to prevent loss.





Network transmission

EasyCheck AF has images acquisition function and supports multiple storage media, including SD card, U disk and network transmission storage. The name of the image is editable and automatically entered for further analysis.

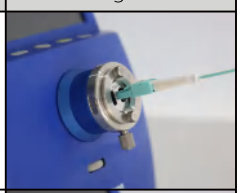
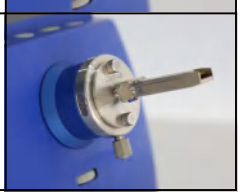


Video input and output

EasyCheck AF 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.

Interface list

EasyCheck AF 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-N001	201010004	2.5mm/PC Ferrule adaptor		Conventional 2.5mm/PC ferrule SC/PC male / FC/PC male ST/PC male / E2000/PC male	
EC-K-N006	130101000065	SMA/PC ferrule adaptor interface		SMA/PC male	
EC-K-N013	201010016	FC/APC adaptor		FC/APC adaptor	
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	

More accessibility features

EasyCheck AF has multi communication ports to access external devices, like LAN router, bar code scanner, foot pedal, mouse and keyboard. It offers more choices to input text, start measurement and manage testing results.

Lan

Mouse and keyboard

HDMI

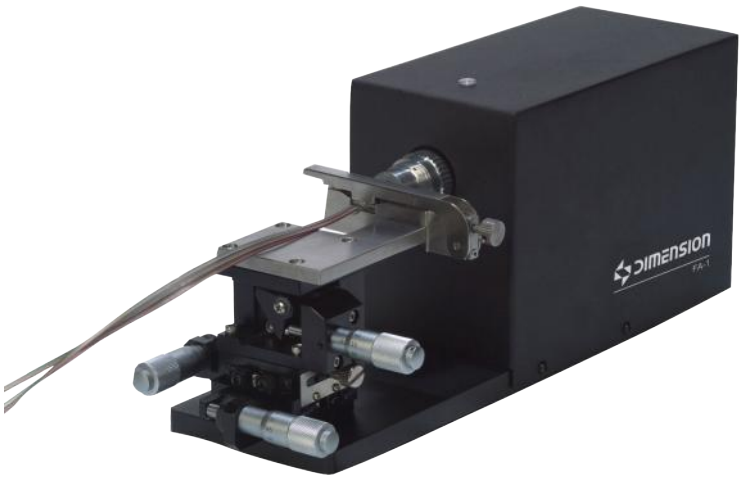
Scan code gun

Foot switch

Specifications

Type	Parameter
Magnification	80X, 200X
Image I/O format	Digital video
CMOS camera	1/2 inch, 2 million pixels
Fiber core size	16mm, 40mm
Adjustable range	X:4mm; Y:4mm
X Y adjustment	Yes
Focus	Manual, Auto
EGT digital Input port	Yes
Monitor	8 ” TFT 1024*768 PIX
Interface	USB*2, SD*1, LAN*1, HDMI*1
Power consumption	6W
Working temperature	-10℃~ 40℃
Storage temperature	-20℃~ 55℃
Power supply	DC 24V
Weight	2.6kg
Size	L195mm*W273mm*H148mm (Fold) L195mm*W273mm*H288mm (Vertical)

FA-1 Fiber Array Endface Inspector



FA-1 fiber array inspector is designed for fiber array endface inspection. We developed fixtures and platforms that have very good function for fiber array inspection. We provide fixtures for different polish angles in fiber arrays. The platform is precise and very comfortable to operate, the image is very stable and clear when maintain in position and you don't need to adjust the focus and Y axis because the microscope with good quality. It can reveal the slightest scratches and defects in the endface. It is the best partner in 40G, 100G transceivers manufacturing.

Main Features

- Multiple Magnification
- High Efficiency and Effectiveness
- Long adjustable distance for up to 128 core fiber arrays
- Measuring angle: 0°,6°,8°,10°,45°

Applications

- Fiber array endface inspection

Professional XYZ Stage

FA-1 applies high quality XYZ stage to hold Fiber array and adjust the XYZ positions. The high accuracy on positioning and ultra long life time distinguish FA-1 from the competitors in the market. The adjusting handle is redesigned for comfortable feeling, even in frequent and long time operation.

Considerate Fixture Design

The fixture is designed in the view of operator, for high efficiency and convenience . It's safe to the Fiber array under test. Loading and unloading are easy. It's a must-have-tools for Fiber array assembly, coupling and inspection.

High Quality Image

FA-1 has fixed 300x magnification. The professional optical design and high grade optical components ensure the consistent performance on image quality.

Specifications

Magnification	200X	300X	400X
Video Output format	PAL		
Power consumption	3W		
Fiber Array Compatibility	128 core		
Fiber Array Angle (°)	0°, 6°, 8°, 10°, 45°		
Power	DC 12V		
Size (H*W*D)	300mmX100mmX120mm		
Weight	1.8kg		

AutoGet Wifi Intelligent Fiber Endface Microscope

Fully automated multifiber connector inspection and analysis

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

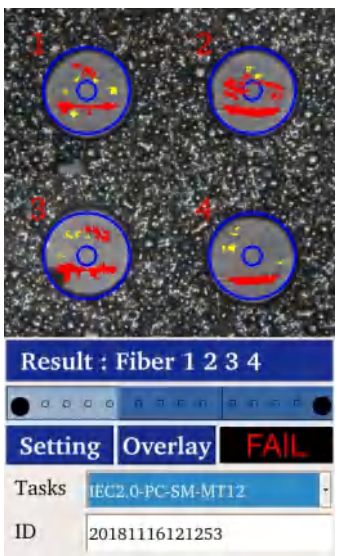
- 5G optical network construction and maintenance
- Data center
- High reliability fiber connection
- Laboratory and manufacturing test

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.

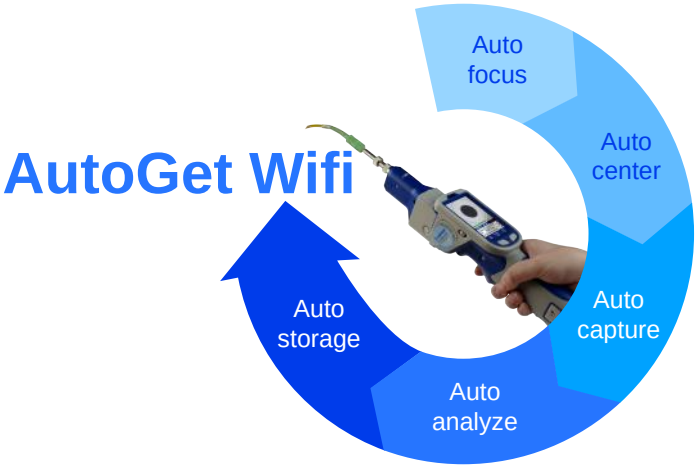
Unparalleled MPO automatic inspection and analysis

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.

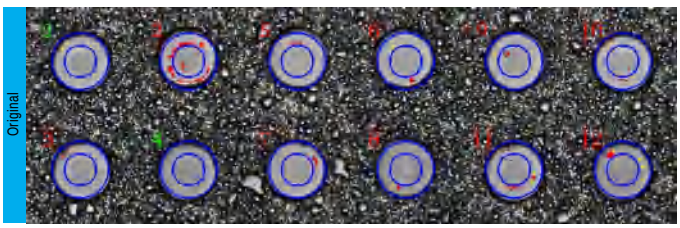
Measurement Report
Dimension Technology Co.,Ltd.

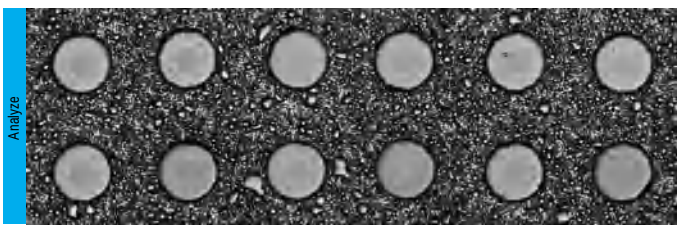
FAIL

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

Results

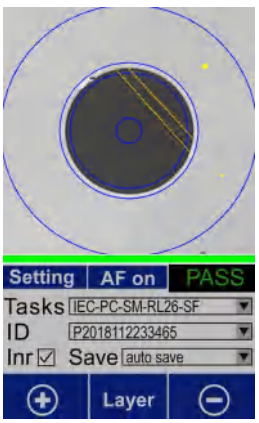
Zone	Zone 1				Zone 2				Zone 3			
Fiber	Name	Inner	Outer	Defects	Name	Inner	Outer	Defects	Name	Inner	Outer	Defects
1	A	0	65	0	B	65	115	3				
2	A	0	65	2	B	65	115	5				
3	A	0	65	0	B	65	115	1				
4	A	0	65	0	B	65	115	2				
5	A	0	65	0	B	65	115	2				
6	A	0	65	0	B	65	115	5				
7	A	0	65	0	B	65	115	3				
8	A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

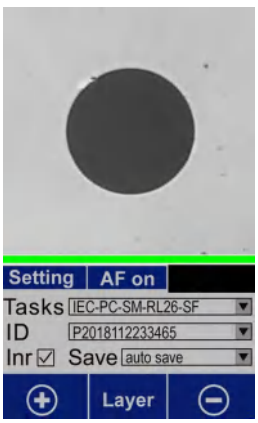


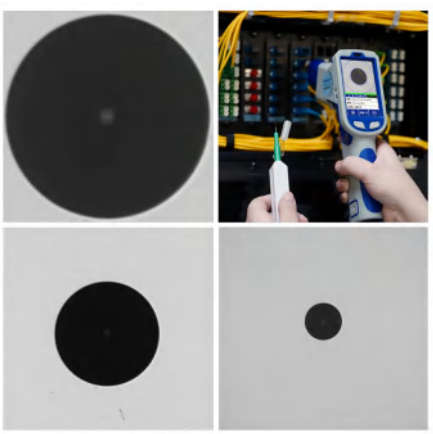


Excellent analysis ability

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.

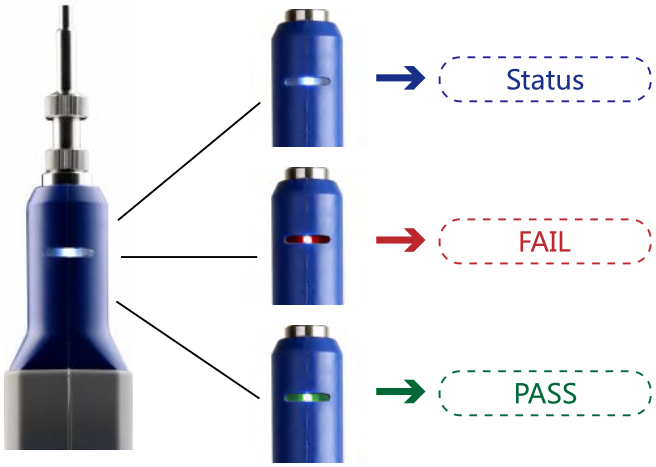






PASS/FAIL LED indicator

AutoGet Wifi is configured with pass/fail LED indicators, users can directly determine the endface inspection result. If it displays in green, it means PASS, no need to check the screen to see the result and directly go to the next point. If it displays in red, it means FAIL, user can check the screen to view the analysis image and for judgment.

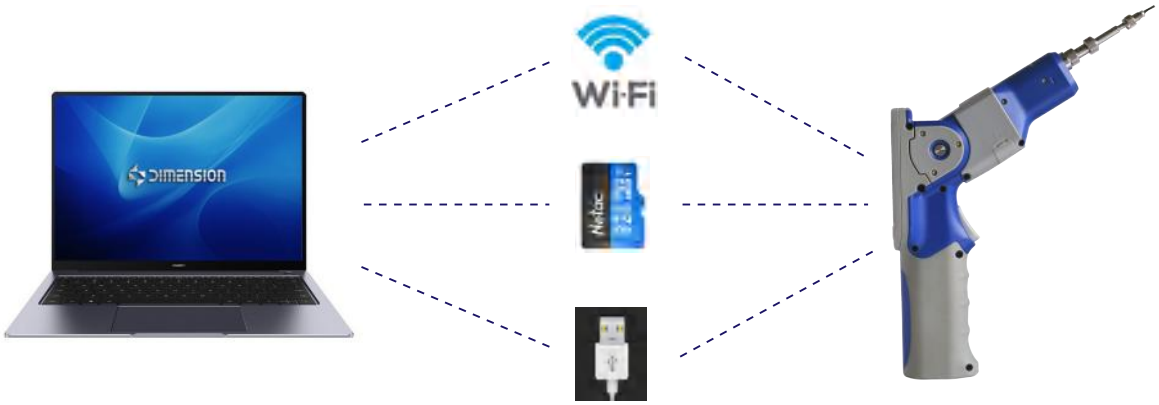


Integrated HD touchscreen

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.

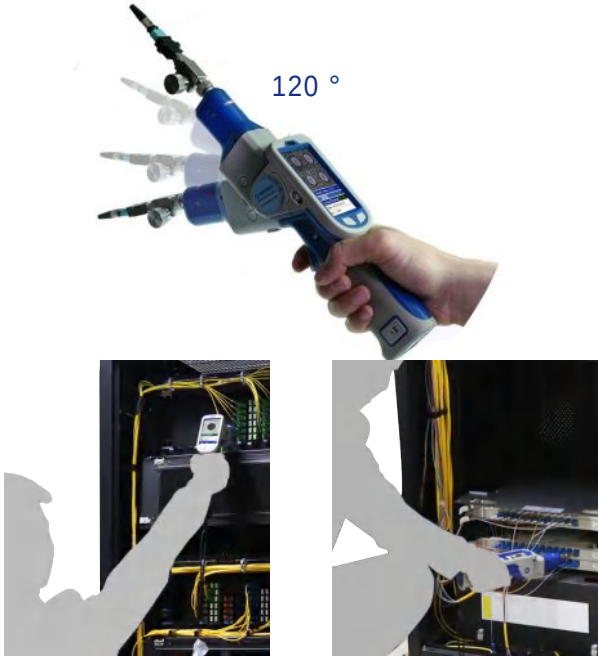
Multiple transmission methods

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.



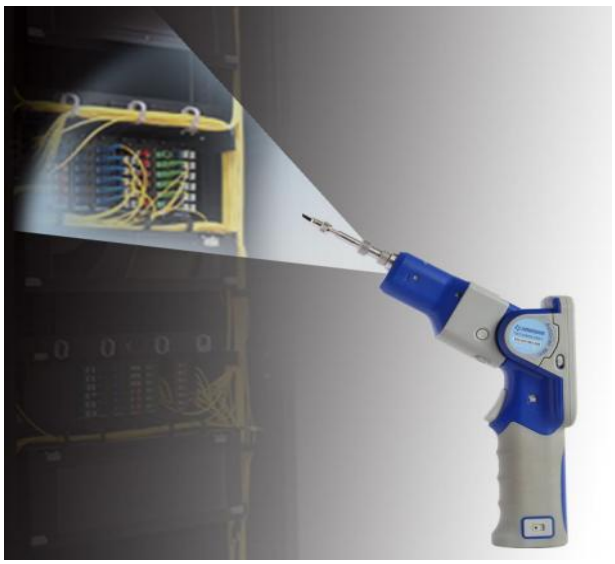
Unique foldable body

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.



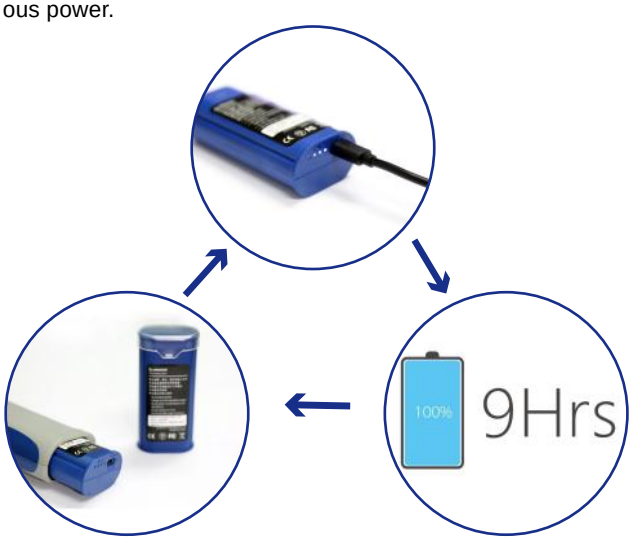
Unique LED lighting

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



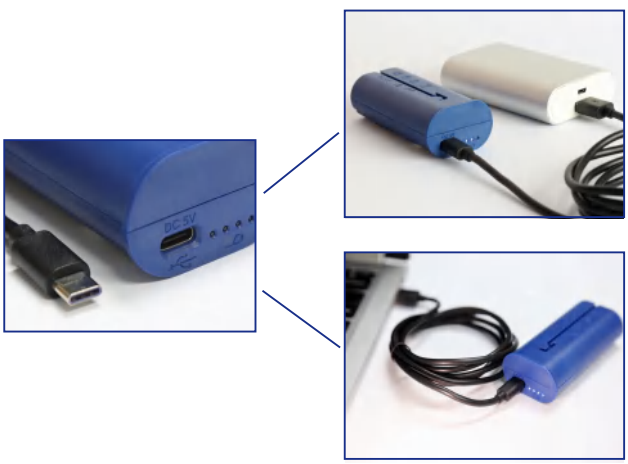
Unique replaceable intelligent battery

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

AutoGet Wifi has the universal USB Type C interface, which is compatible with various charging devices.



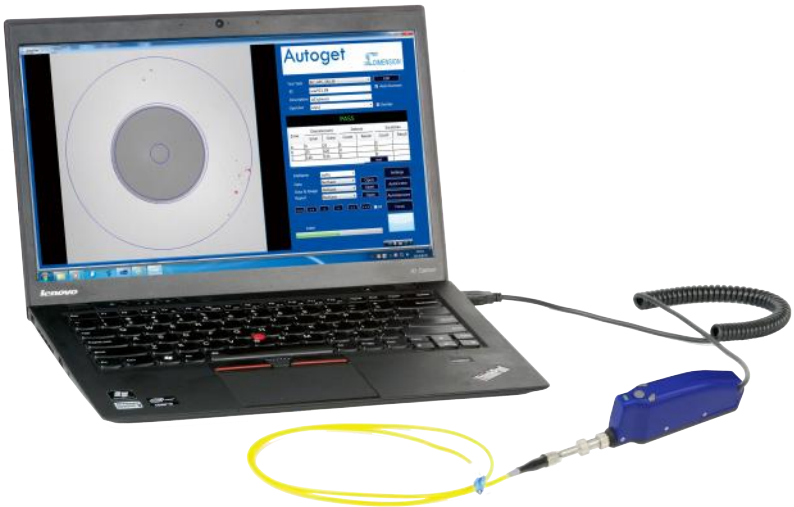
Rich adapter parts

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

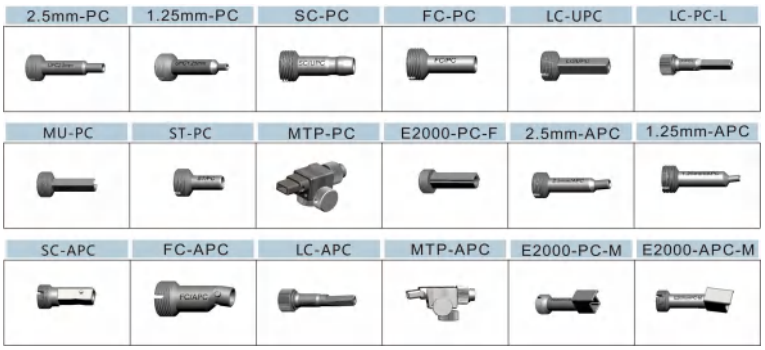
The optimized algorithm avoids any man-related misjudgments. The reliable endface inspection helps to ensure the product's ultra performance in the field application.

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℃ ~ +55℃
Storage Temperature	-20℃ ~ +60℃
Power	USB
Size (H*W*D)	182mm X48mmX25mm
Weight	152g

EasyGet Wifi
Wireless Fiber Endface Microscope

EasyGet Wifi App

Available on the App Store

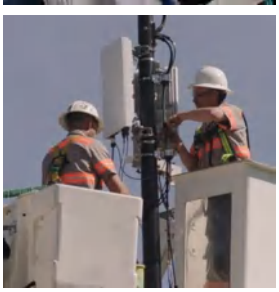
Available on the App Store

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

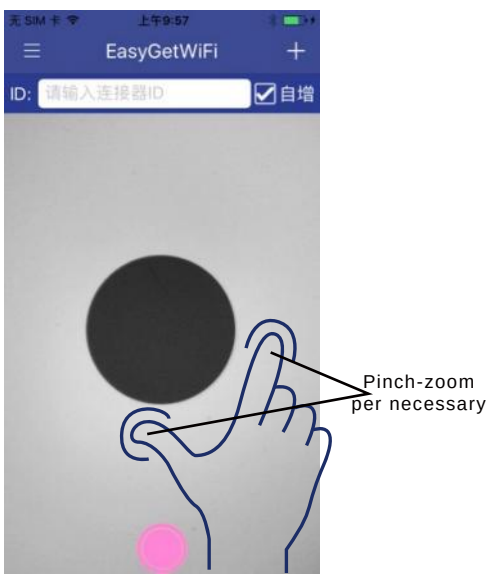
EasyGet Wifi is lightweight, portable, and durable. One-hand operation and slim body design enables the inspection for the most complicated scenarios.
The unique surround focus ring and image capture button, makes the fiber endface inspection more easier.

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

EasyGet WiFi MT Wireless Full Fiber Endfaces Microscope

EasyGet Wifi App

Available on the App Store

Available on the App Store

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

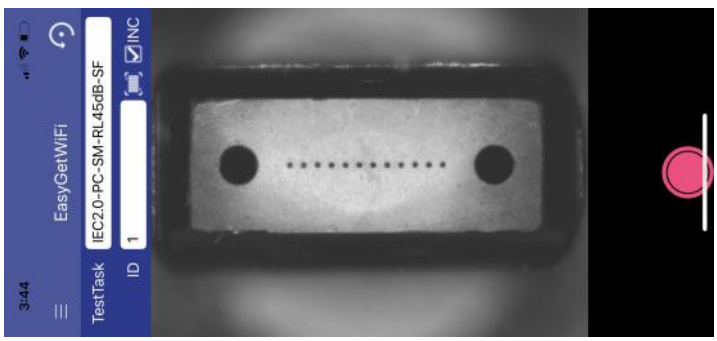
- Wide-field full endface inspection
- Smart interface replacement
- Supports Wifi and USB data transfer
- Real-time viewing and auto-save images, a design that is intuitive and intelligent
- Compatible with mainstream intelligent terminals (Wins/Android/iOS)
- Built-in battery with duration up to 5 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 tests

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.

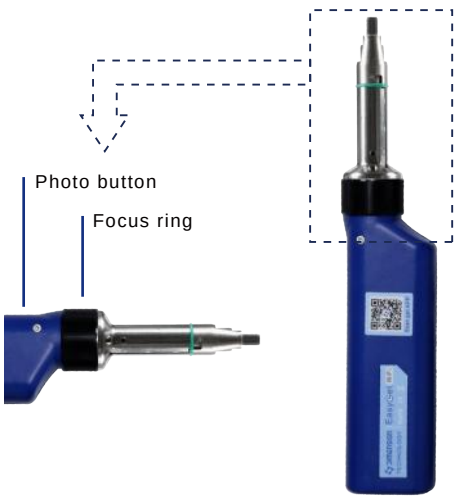


Smart interface replacement

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

Wifi Data Transfer

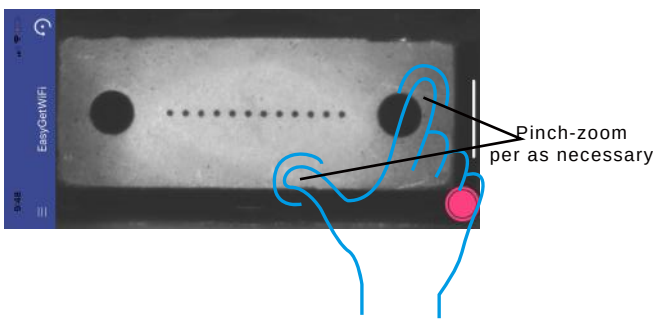
EasyGet Wifi MT can transfer the fiber end face images to various display terminals via Wifi. By pressing the button on the body or click on smart devices, users can capture the fiber endface images or save them on display terminals, a convenient way to view and save images online.

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.

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	210 g
Size	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

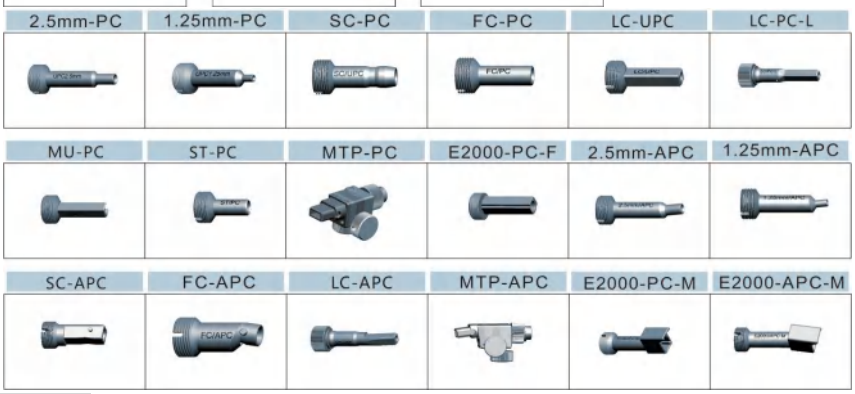
EasyGet 2 uses aviation electrical plugs to replace USB connector in previous version. Reliable electrical connection ensures the stable image quality in various working environment.

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℃~ +40℃
Storage Temperature	-20℃~ +55℃
Power Supply	Rechargeable 12V battery or DC IN
Life time after charge	8h
Size	Monitor 205mmX94mmX25mm Microscope 23mmX160mm

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

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

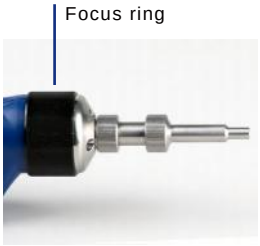
- 5G optical network construction and maintenance
- Data center
- Highly reliable optical fiber connection
- Laboratory and manufacturing testing

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.

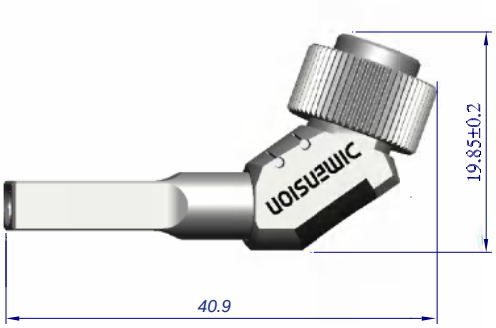
Main Features

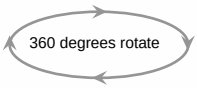
- Exclusive 70 degree elbow adapter, accessibility to use
- 360 degrees rotate
- Slim metal body
- Compatible with all handheld devices

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.

List of new fiber elbow adapters

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

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

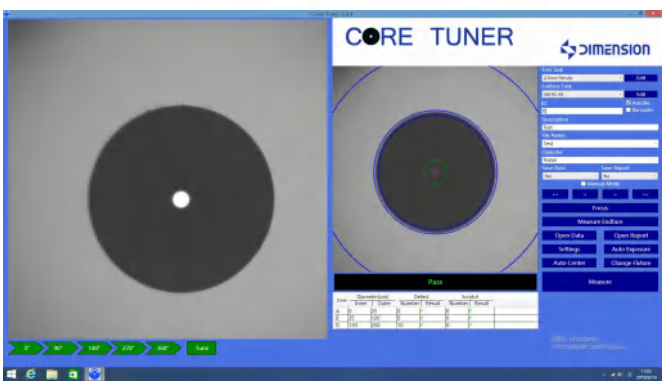
Applications

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

Bare fiber core testing diagram

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 .

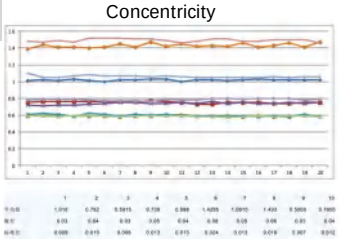


Endface inspection

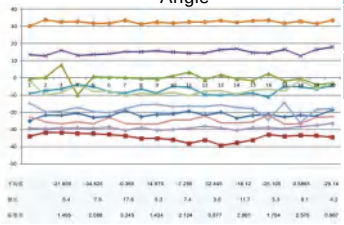
High Accuracy, High Repeatability

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

Concentricity



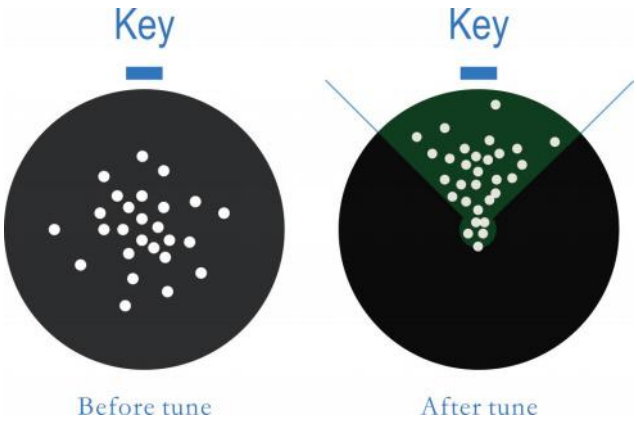
Angle



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.



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.

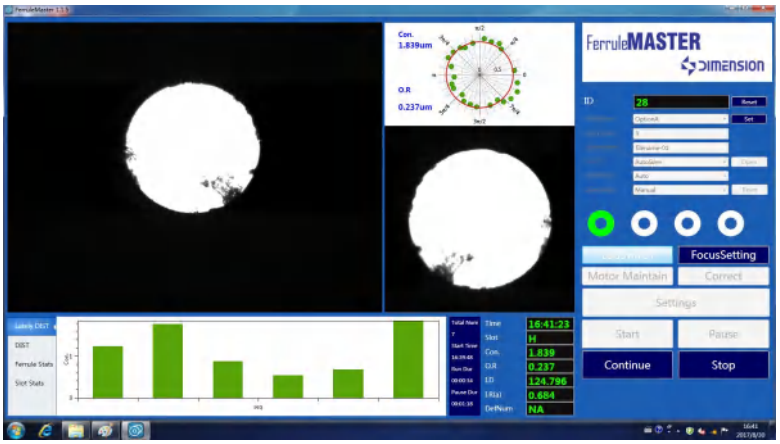
Can Test APC Connector

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

Specifications

Item	CORE TUNER C	CORE TUNER S
Rotate way	Manual	Auto
Test Speed	8s	4s
Concentricity Repeatability	±0.1um	±0.08um
Bearing angle Repeatability	±10°	±5°
Focus	Auto	
Image Brightness	Auto	
Applications	PC & APC 1.25mm ferrule & connector PC & APC 2.5mm ferrule & connector	
Operating temperature	-10℃~ 55℃	
Storage temperature	-20℃~ 60℃	
Power supply	DC 24V	
Size (HXWXD)	270mmX150mmX 112mm	

FERRULE MASTER LC/SC Concentricity Tester



Ferrule Master is designed by Dimension Co. Ltd based on experience in development of precision instruments for many years and industry characteristics.

Ferrule Master could feed, focus, measure and classify automatically. It could test over 1000 PCS ferrules in one hour, no laborer required.

Ferrule Master has the high performance and accuracy and high repeatablility with the superior image processing. It is intelligent and easy to operate and maintain.

Clear user interface, easy to operate, stable performance and powerful analysis capability make the Ferrule Master is the best instrument in material inspection and mass production.

Main Features

- Powerful detection function
- Accurate and high repeatablility
- Intelligent
- Prefect data analysis capability
- Automated and easy to operate

Applications

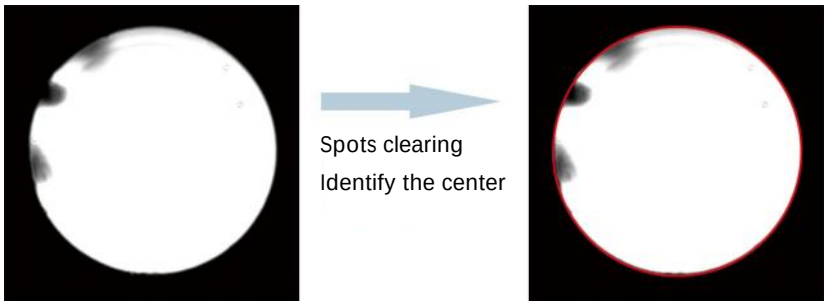
- Automatically detect fiber core concentricity, outer roundness, inner diameter, inner roundness and core sorting of different grades.

High Performance

Ferrule Master could measure ferrule's concentricity, roundness of outer diameter, inner diameter, roundness of inner diameter and do the classification in one procedure with the efficient algorithm developed by Dimension Co. Ltd .

Intelligent

Ferrule Master could work well even if there are dirty spots on the ferrules.

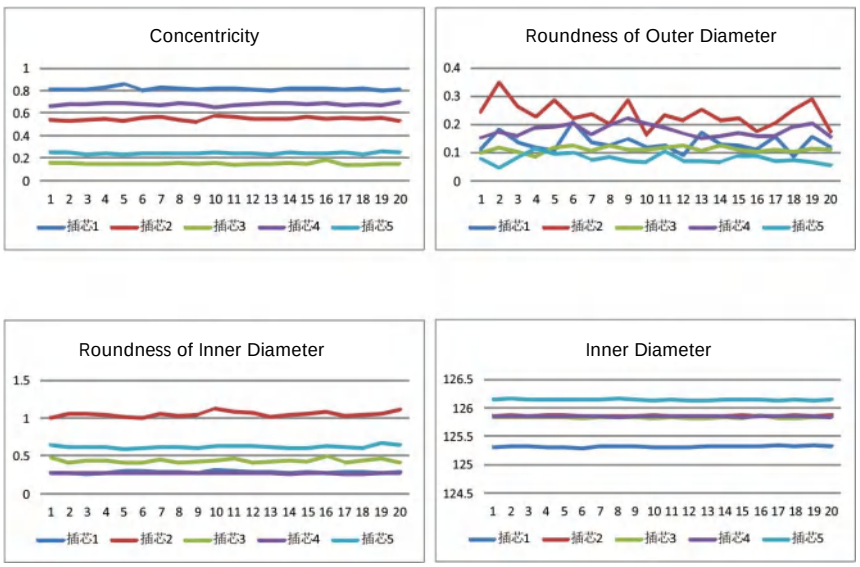


Accurate and High Repeatability

Taking 5PCS 2.5MM core as an example, the data obtained by Ferrule MASTER concentricity tester were tested 20 times each.

Automated

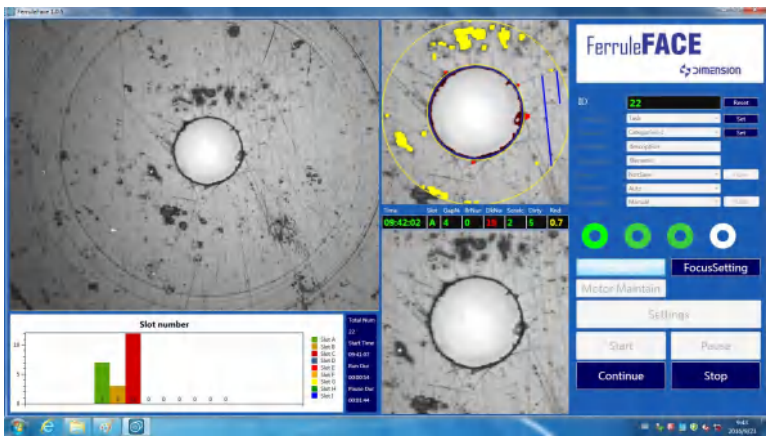
Ferrule Master could feed,measure,check and classify automatically.It could test 1000 PCS ferrules in one hour,no laborer required.



Specifications

Item	Ferrule MASTER
Measure Time	3.5S
Repeatability of Concentricity	±0.06um
Repeatability of O.R	±0.06um
Repeatability of I.D	±0.06um
Repeatability of I.R	±0.06um
Focus	Automatic
Applications	2.5mm ferrule 1.25mm ferrule
Power Suppy	DC 24V
Size (H*W*D)	420mmX300mmX400mm

FERRULE FACE Endface Auto Inspector



FERRULE FACE supports fully automatic and high efficient Ferrule end-face inspection. With the help of auto feeding, auto inspection and auto classifying functions, FERRULE FACE can easily test more than 3000 pieces of ferrule per hour, minimal human intervention is needed. FERRULE FACE is a must-have instrument for ferrule manufacturer; it's the guarantee for high quality and efficiency.

Main Features

- Fully Inspection for Ferrule End-face
- Efficient Ferrule Testing
- Ferrule Endface Visual Inspection
- Comprehensive Data Analysis
- Automatic Classify
- Quick Measurement

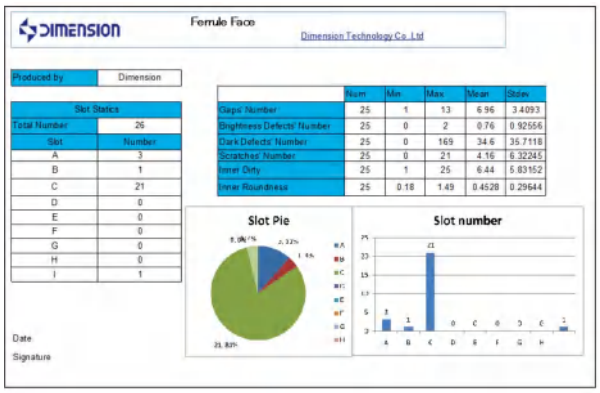
Applications

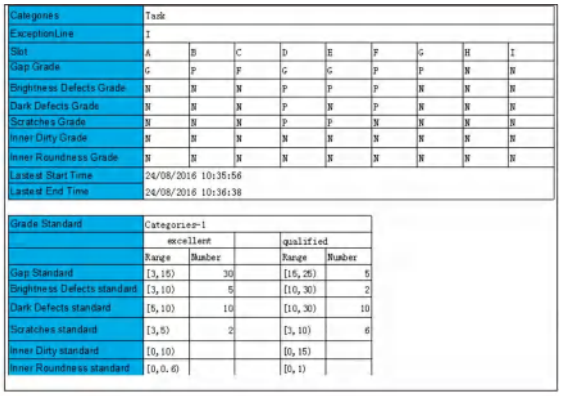
- Automatically detect fiber core concentricity, outer roundness, inner diameter, inner roundness and core sorting of different grades.

Comprehensive Testing Capability

The intelligent ferrule endface analysis program can identify any physical defects on ferrule endfacelike edge, scratch and blocking. The testing result is highly accurate and repeatable.

Perfect Data Analysis Capability





High Efficiency

The operation of FERRULE FACE is easy and convenient. FERRULE FACE's testing capacity is more than 3000 pieces per hour.

Automatic Inspection

Auto feeding, auto focusing, auto inspection and auto classifying makes FERRULE FACE a real automatic equipment. It needs minimal human intervention.

Stable Data Transmission

The lockable USB connection and robust mechanical design ensure the stable testing result even in the complicated field application.

Specifications

Item	Parameters
Testing Time	0.8S
Focus mode	Auto Focus
Applicable Product	2.5mm ferrule/1.25mm fferrule
Power	DC 24V
Size (H*W*D)	420mmX300mmX400mm

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

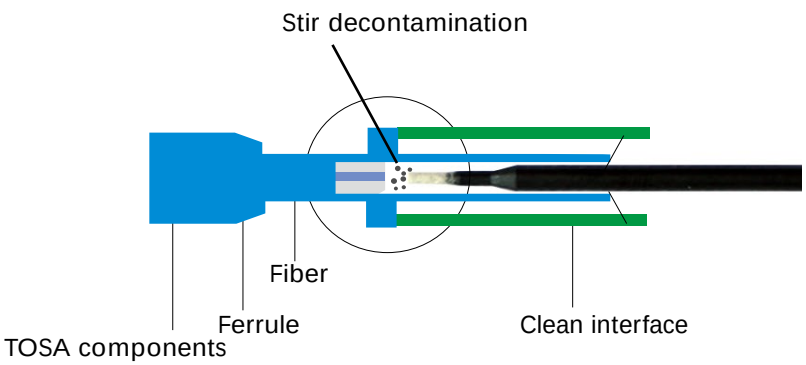
- Efficiently clean all kinds of stains on the endface and the inner wall of the ceramic sleeve
- Clean endface of the 1.25mm and 2.5mm optical port and inner wall of the ceramic sleeve
- Easy to operate without secondary pollution
- Strong cleaning ability, only need a single cleaning

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

Clean LC Transceivers

Clean LC component



Used with cleaning machine

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

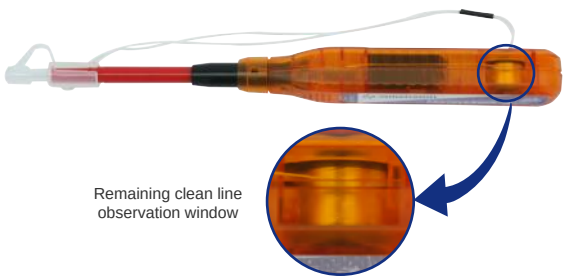
- Small size, with a lifespan of 1000+
- High performance cleaning of dirt
- Convenient to carry and use features

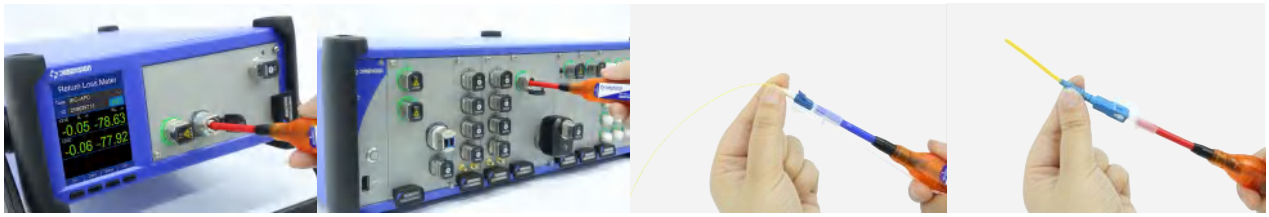
Applications

- 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.





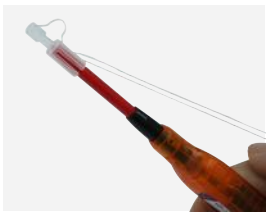
High performance cleaning of dirt

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	

MPO Fiber Endface Cleaner

MPO fiber endface cleaner is specially designed to clean MPO/MTP connectors. Being made of non-alcohol high density material, it can effectively clean 12 cores at one time. It can clean both male and female MPO/MTP connectors. One push operation offers great convenience.

Main Features

- High clean efficiency on removing contaminations such as dust, oils and debris
- Be compatible with FOCIS-5 (MPO) connector
- One push operation
- For both male and female connectors clean
- Narrow design reaches tightly spaced MPO adapters
- Over 550 times cleaning cycles

Applications

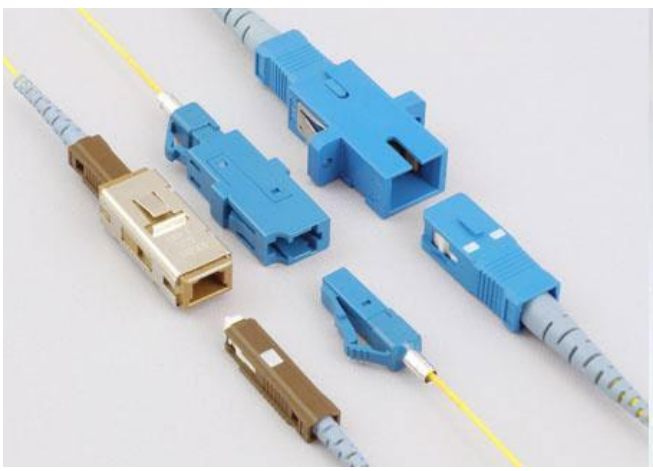
- MPO/MTP connector cleaning

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:

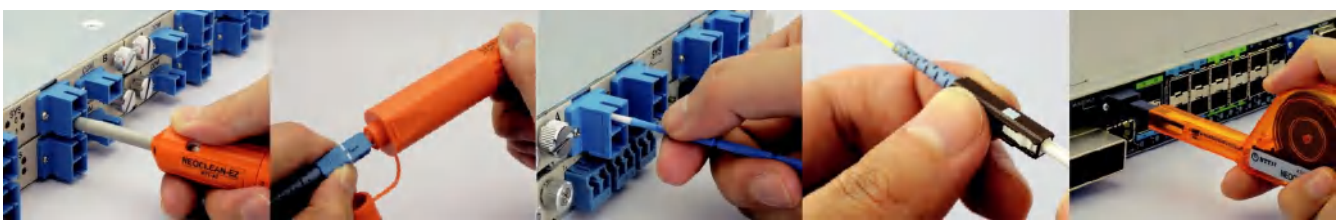
* OPTIPOP are registered trademarks of NTT Advanced Technology Corporation.
* Any other Company Names, product names, etc. recorded herein are trademarks or registered trademarks of the specified companies.
* Please understand that the contents recorded herein may be subject to change without notification.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

- Connector cleaning



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.

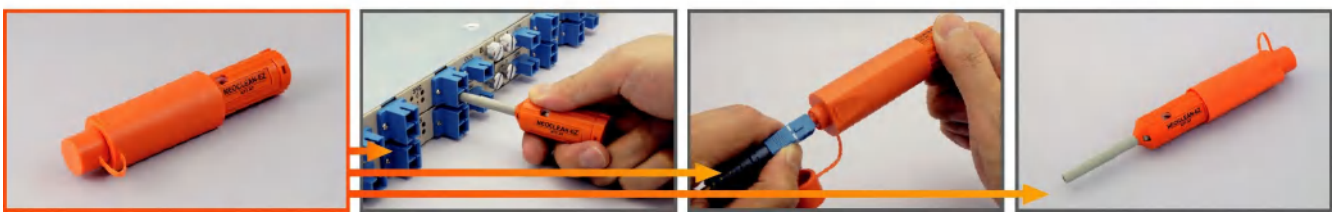
NEOCLEAN®-EZ pen

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.

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 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.

NEOCLEAN®-S stick type

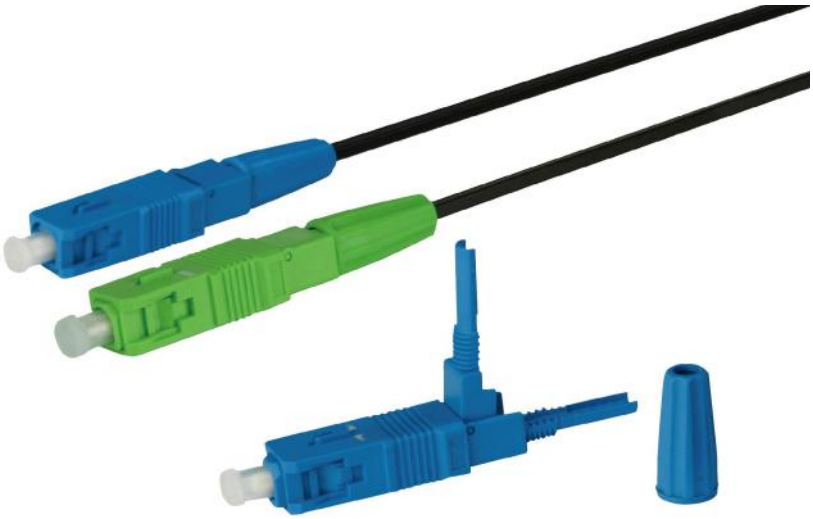
NEOCLEAN® rods made of antistatic materials can control the generation of static electricity during the cleaning process. Similar to the disc type, the cloth for the cleaning part is made of special cleaning fibers. It can be used to clean the endface of the connector inserted into the adapter and the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

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

EASYCONN Fast Connector



EASYCONN is a field assembly fiber connector with exquisite volume, excellent optical and mechanical performance developed by Dimension Technology. With unique fiber alignment and matching liquid structure, EASYCONN is the best choice for fast field installment, easy to use and no need other tools to help assemble.

Main Features

- Fiber alignment by ceramic ferrule
- Linkage locking mechanism
- Fully-enclosed design for matching gel
- Applicable to different kinds of optical cables
- Red light viewing window at the coupling point
- Front Micro-bend Design
- Back Micro-bend Design
- Multiple times of Reassembly
- The overall length is ONLY 52mm.
- Good performance for temperature change
- Easy and convenient assembly
- No need specialized tools

Applications

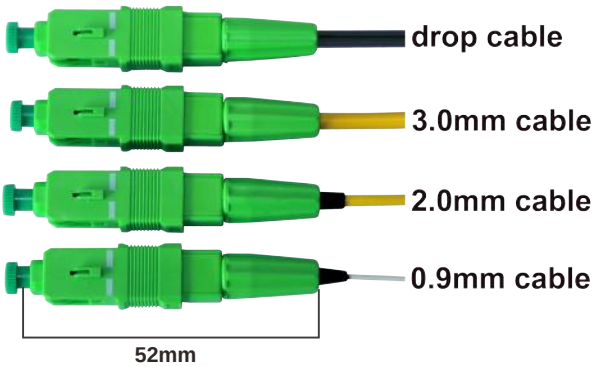
- FTTH
- FTTX
- 5G optical network system
- Others

Linkage locking structure（Patented）

EASYCONN is designed with linkage locking structure that can lock fiber and cable simultaneously. While press the up-boot, the boot will push the locking ring and lock 250um fiber automatically. No additional tools needed to assemble.

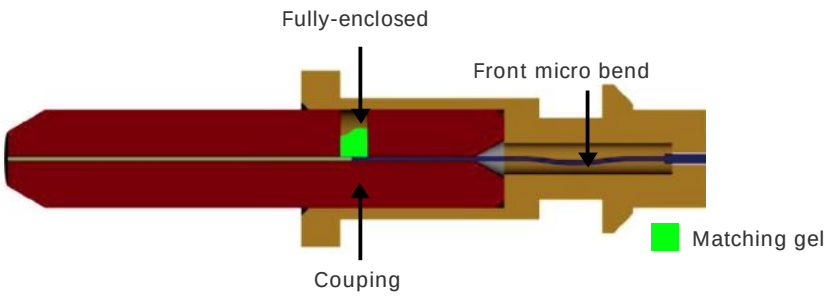
Applicable to different kinds of optical cables

The sawtooth cable locking structure greatly improved the tensile strength of the connector, which is suitable for drop cable, Φ3.0mm cable, Φ2.0mm cable(with additional tube), Φ 0.9mm cable(with additional boot).



Fiber alignment by ceramic ferrule（Patented）

Compared with the traditional "V" groove alignment method, EASYCOON is made to be aligned by ceramic ferrule, which ensures and improves the higher optical performance even in bad condition.

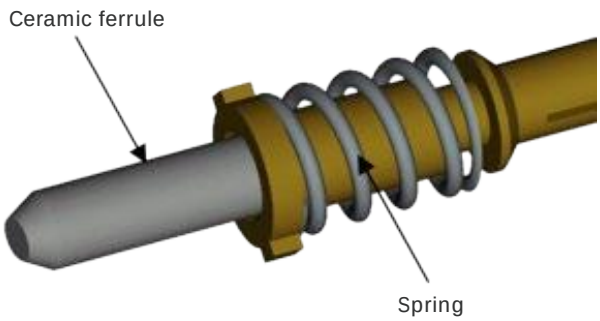


Fully-enclosed design for matching gel（Patented）

With fully-enclosed design, it can prevent the matching gel from volatilization, metamorphosis and loss; also it provides the connector with longer use time and ensures the stable working in a wide temperature range from –40℃ to 75℃.

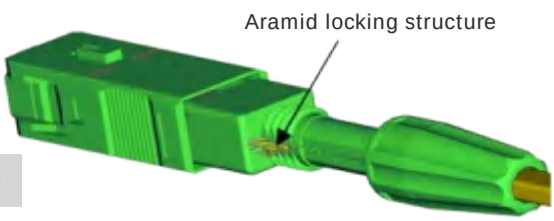
Front spring structure

With front spring structure, the ferrule can do the self-adjustment freely like traditional connector while connecting.



Red light viewing window

Red light viewing window at the coupling point to help the operator to check if the assembly is successful by using the red light locator.

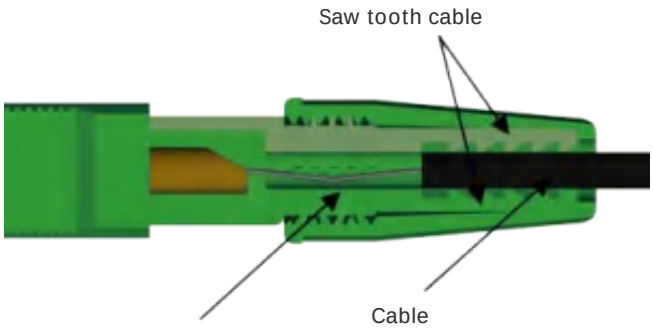


Staggered-tooth structure for Kevlar locking (Patented)

The structure can lock Kevlar firmly to provide incredible tensile strength while using Φ3.0mm cable and Φ2.0mm.

Front Micro-bend Design （Patented）

With front Micro-bend design, it can make the fiber connection tight and eliminate the gap of fiber coupling even in high or low temperature.



Back Micro-bend design

The back micro-bend structure provides high optical performance. When the cable is pushed back to move slightly, the coupling point can be still connected tightly.

Easy and convenient assembly

The fast connector has been pre assembled in factory as the picture. The operator just needs to strip, cleave and lock the cable, very easy process. No need specialized tools.

Reassembly structure

EASYCONN's unique structure supports multiple times of reinstallation without any specialized tools.

Specifications

Item	Parameter	Remarks
Insert Loss	SC/PC:Typical 0.2dB Max 0.4dB SC/APC:Typical 0.2dB Max 0.4dB	1310nm & 1550nm
Return Loss	SC/PC:Typical 48dB Min 45dB SC/APC:Typical 64dB Min 60dB	1310nm & 1550nm
Fiber	SM 9/125um	
Application	drop cable,Φ3.0mm, Φ2.0mm(with tube),Φ0.9mm (with boot)	
Operation Time	<10s(Exclude Fiber Treatment)	
Tensile Strength	>80N (Drop Cable)	Peak Power of Tensile
Reassemble Times	5 times	
Operation Temperature	-40~75℃	

FASTCONN Quick Connector

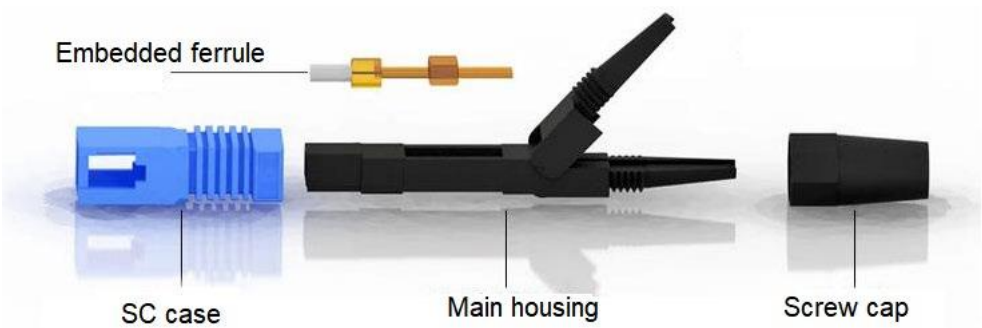
Dimension's FASTCONN optical fiber quick connector, using a sophisticated v-groove design, is used to connect two optical fibers or cables to form a reusable passive component that forms a continuous optical path. The operation is simple and fast, saving time.

Main Features

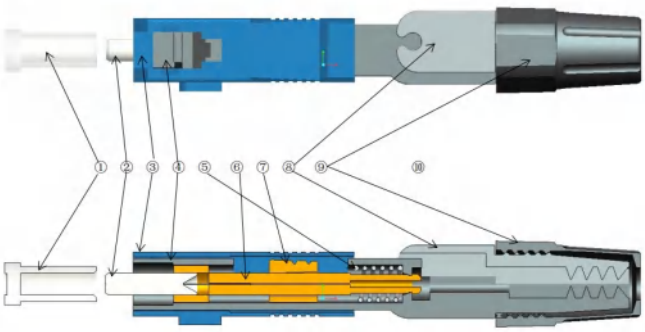
- Efficient docking, low insertion loss
- Easy operation and fast construction speed
- Automatically generate slight bends without manual control
- Matching paste leak-proof design, long-term stability
- Repeated use many times, strong adaptability
- High cost performance

Applications

- FTTH
- Ethernet backbone temporary or permanent connection
- Military fiber optic network docking
- Optical fiber transmission line, optical fiber distribution frame
- Fiber optic fiber fast docking in optical fiber testing equipment



Structure description



① Dust cap UPC: white/translucent, APC: green,
② Embedded ferrule: SC 0.5Concentricity and embedded fiber
③ SC case UPC blue: APC green, Multimode: gray
④ Main housing: Support the whole and fix locking cable
⑤ Spring: Inside the core, provide ferrule butt elasticity
⑥ V-groove part: Inside, hold down 0.125mm fiber, including V-groove, board and lock parts
⑦ Lock key: Inside: up for locking fiber, down for unlocking fiber
⑧ Lock cable cover: Open the cover can put or take out cable, down the cover and lock the screw
⑨ Screw cap: Locking the cable on main housing
⑩ Fix length tool: Provided in proportion to quantity, not included in this picture

Specifications

Types	SC/UPC、SC/APC
Total Length	60mm
IL	UPC≤0.5dB, Average: 0.3dB, APC≤0.5dB, Average: 0.35dB
RL	UPC≥50dB, APC≥55dB,
Applicable fiber	drop cable,Φ3.0mm, Φ2.0mm(with tube),Φ0.9mm (with boot)
Operating time	Exclude Fiber Treatment < 10s, All assembled≤3min
Tensile strength	40N
Assemble times	5times
Drop test	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (1.5m, Free fall)
High temperature test	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (85℃, 96h)
Low temperature test	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (-40℃, 96h)
High and low temperature cycle	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (-40℃ ~ +85℃, 21times, 168h)
Damp heat	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (-75℃, 95%, 96h)
soak	Δ IL : ≤ 0.3dB, Δ RL : ≤ 5dB (Room temperature, tap water, 168h)
Mating times	More than 1000 times
Operating temperature	-40° ~ +70°
Storage temperature	-40° ~ +85°
Relative humidity	≤95% (+30℃)
Atmospheric pressure	62k Pa~106k Pa
package	10pcs in a blister box(148x71x15mm), and 10 blister boxes are packed in the inner box, then 10 inner boxes are packed in a carton(45x25x24mm)

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

Professional abbreviations

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）

Testing creates value

Dimension Technology Co.,Ltd

Add.: Room 603-604, Building 2, Chongwen Park, Nanshan Zhiyuan (Phase 3),
No. 3370 Liuxian Avenue, Nanshan District, Shenzhen

Tel: +86 755-26480850

Fax: +86 755-26480895

Web: en.dimension-tech.com

Information： sales@dimension-tech.com

Service： servers@dimension-tech.com

Technical Support： support@dimension-tech.com