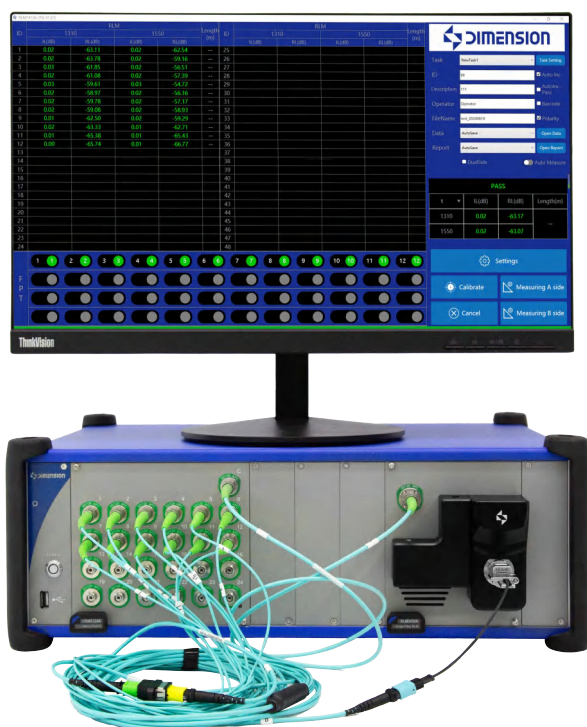
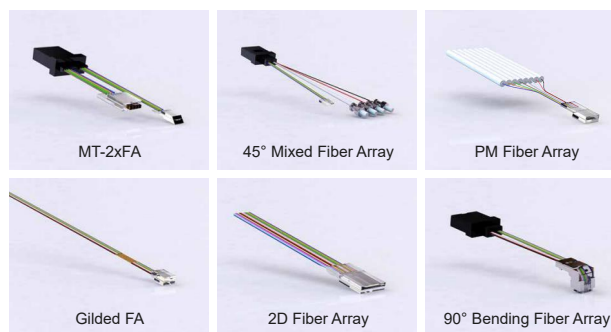


FA/JUMPER Test Solution



IL+RL+Polarity



One-stop solution

FA/JUMPER devices with the development of optical modules also ushered in new market demand. Different from the traditional connector, the crystal end face at the end of FA/JUMPER device cannot be directly physically connected, and the length of the device is generally short, so there are problems such as light leakage and inaccurate return loss test, and the polarity of fiber cannot be tested with conventional polarity detector. Dimension Technology upgrades and iterates on the basis of multi-core polarity insertion loss instrument to provide customers with a one-stop FA/JUMPER test solution, taking into account the FA test of different branches and different angles, improving the efficiency of production inspection.

Main Advantage

- Support SM/MM FA test
- Customized wavelength
- IL, RL, Polarity 3 in one
- Special mode for FA, higher accuracy for RL
- Patented visual detection polarity
- Rich FA fixture, interface, easy to replace
- Optional external PD for multi-branch FA/Z-BLOCK
- Can be upgraded in the existing polarity insertion loss meter
- Integrating ball can be customized to test 2000+ core number FA

Main Application

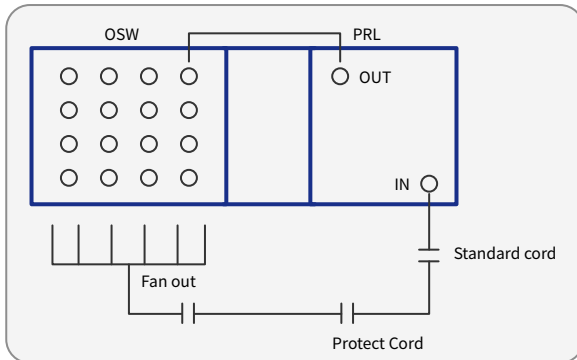
- MT-FA
- JUMPER
- Z-BLOCK

Main Feature

- Variable programmable functions
- For Tx IL, ISO, Rx IL, RL
- Base on OMEGA platform

Rich interface design, stable clamping, multi-dimensional optical parts fine tuning

Traditional insertion and return loss meters often face interface issues when testing FA devices, causing light leakage and inaccurate measurements. Dimension Technology's clamp and interface design ensures quick, stable operation, prevents scratches, and reduces errors.

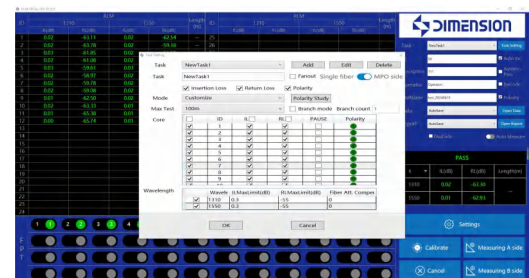


To accommodate wider FA or multiple branch ports, the insertion and return loss meter's integrating sphere now has a >10mm light entry aperture with a light leakage prevention design.

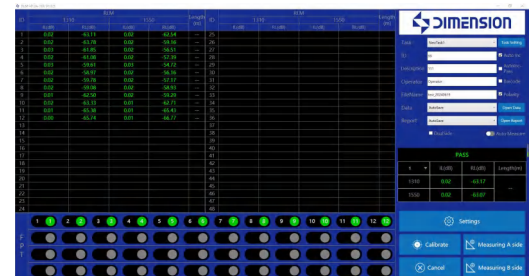
For MT-FA testing, Dimension Technology offers a multi-dimensional adjustable optical platform for simultaneous multi-port testing, easily adjustable for different devices.

One-step detection of IL, RL, and polarity, solving FA polarity issues.

FA/JUMPER devices cannot connect to the MPO interface of polarity testers, making TOSA/ROSA array testing ineffective. Dimension Technology's patented visual polarity detection solves this problem. Integrated into the insertion and return loss meter, it enables one-step IL, RL, and polarity testing for FA/JUMPER devices.



Polarity learning settings

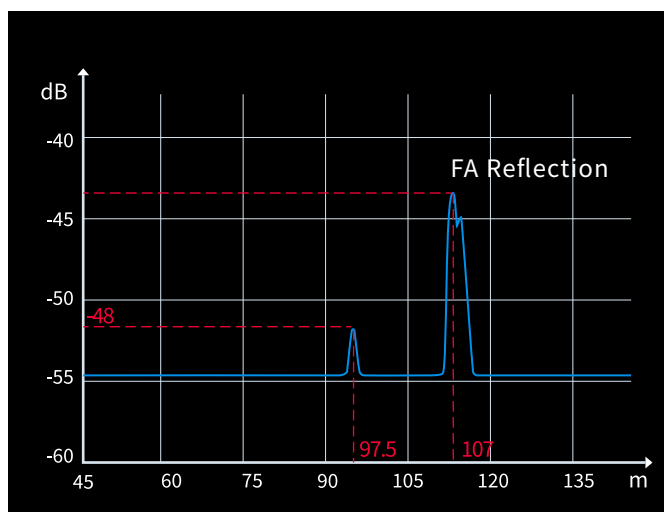
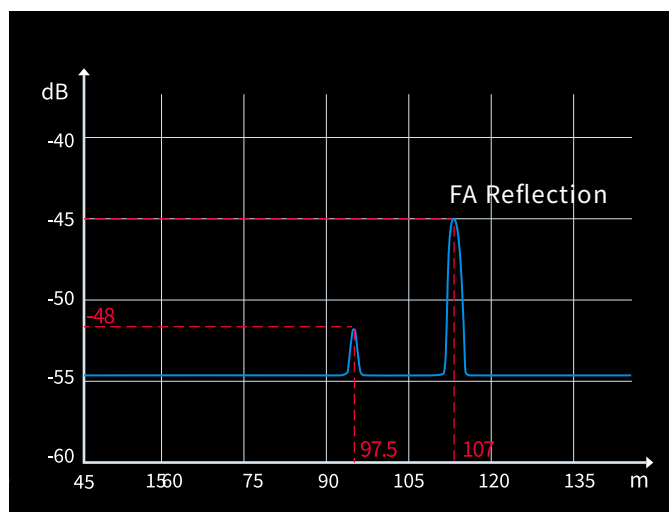


IL, RL, Polarity in one

This testing solution can automatically test IL, RL, and polarity. For high-fiber-count arrays (2000+fibers), it uses a high-capacity integrating sphere. For multi-branch FA devices, the software intelligently organizes polarity sequences and generates a unified report.

Optimized return loss testing for FA/JUMPER connectors

Non-wrapped return loss meters, based on OTDR principles, have blind spots when testing ultra-short connectors without special handling. Wrapped return loss meters using OcWR also fail to test MT-FA device Rx end MT return loss without matching gel. Dimension Technology has optimized the OTDR algorithm for FA-specific scenarios, enabling detection of Rx end MT return loss.



Based on the optimized algorithm of Dimension Technology's multi-core polarity insertion and return loss meter, the MT end return loss test results are stable and accurate when using matching gel.

	850nm IL			1300nm IL			850nm RL			1300nm RL		
Channel	Average	Variance	Accuracy(dB)	Average	Variance	Accuracy(dB)	Average	Variance	Accuracy(dB)	Average	Variance	Accuracy(dB)
1	0.11	0.00013	0.03	0.09	0.00018	0.04	-45.51	0.045	0.69	-45.28	0.052	0.74
2	0.13	0.00012	0.03	0.13	0.00011	0.03	-44.37	0.063	0.87	-45.23	0.055	0.75
3	0.14	0.00033	0.05	0.11	0.00022	0.04	-45.19	0.033	0.55	-45.65	0.093	0.85
4	0.10	0.00014	0.04	0.11	0.00025	0.04	-45.74	0.046	0.69	-45.15	0.049	0.81
5	0.12	0.00018	0.04	0.10	0.00022	0.05	-45.38	0.051	0.71	-44.96	0.073	0.89
6	0.13	0.00018	0.04	0.11	0.00021	0.04	-44.80	0.064	0.84	-44.70	0.128	0.85
7	0.12	0.00018	0.03	0.12	0.00025	0.05	-45.11	0.062	0.81	-45.13	0.058	0.73
8	0.12	0.00014	0.04	0.10	0.00028	0.05	-44.82	0.067	0.81	-45.11	0.063	0.79
9	0.10	0.0002	0.04	0.11	0.00018	0.04	-45.00	0.045	0.69	-44.34	0.061	0.78
10	0.12	0.00023	0.05	0.11	0.0002	0.04	-45.39	0.045	0.69	-45.16	0.044	0.74
11	0.13	0.00024	0.05	0.11	0.00014	0.04	-45.64	0.045	0.69	-45.64	0.06	0.7
12	0.12	0.00022	0.04	0.14	0.00019	0.04	-45.86	0.052	0.73	-45.51	0.063	0.79

Main Specifications

	Basic product model	RLM1612A-1FA-24	RLM5656A-1FA-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

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.

相关产品



MT Pro



Smartcheck



FA-1



Offsoon Pro

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