



MAXWELLON TF2105

36dB to 42dB
Multi Functional Optical Time Domain Reflectometer
2025



Maxwellon TF2105 PON OTDR is a multifunctional optical time domain reflectometer equipped with a 5.6-inch color screen and a high dynamic range of up to 45 dB. It is capable of penetrating up to 132 optical splitters in PON network testing. The device integrates multiple functions including Visual Fault Locator (VFL), Event Map, Optical Power Meter, Light Source, Optical Loss Test, and Optical End-Face Inspection — all in one compact unit designed to streamline field testing and maintenance.

It is mainly used to measure fiber length, optical loss, and connection quality across various types of optical fibers and cables. The TF2105 is widely applied in optical communication network construction, emergency repair, system maintenance, and R&D or production testing of optical fiber and cable systems, helping users improve efficiency and accuracy in the field.

■ Key Feature

- Supports PON network testing, capable of penetrating up to 1:32 optical splitter
- Enables batch processing of test data and report form printing
- Online testing without interrupting communication
- Compatible with standard .SOR file format for data export
- Dual operation mode with physical keys + touchscreen for flexible control
- All-in-one integration of multiple test functions: PON OTDR/ Visual Fault Locator (VFL)/ Light Source (LS)/Optical Power Meter (OPM)/ Event Map/ Optical End-Face Detection/ Optical Loss Test

■ Specification

OTDR							
Model	PD1	PS1	PS2	PT1	PT2	PT3	PT4
Wavelength	1310nm±20nm 1550nm±20nm	1625nm±20nm (Filtered)	1650nm±5nm (Filtered)	1310nm/ 1550nm±20nm 1650nm±20nm(Filtered)			1310nm/ 1550nm±20nm 1650nm±5nm(Filtered)
Filter	/	High pass>1595nm Isolation>40dB (1270nm-1585nm)	Band pass>1650nm±7nm Isolation>40dB (1650nm±10nm)	High pass>1595nm Isolation>40dB (1270nm-1585nm)			Band pass>1650nm±7nm Isolation>40dB (1650nm±10nm)
Fiber Type	G.652						
Max Dynamic Range	37/35 dB	37/35 dB	38 dB	38/36/36 dB	40/38/38 dB	42/40/40 dB	38/36/36 dB
Event Blind Zone	1m	0.8m					
ATT Blind Zone	6m	6m					
PON Blind Zone	30m						
Test Range	500m/ 1km/ 2km/ 4km/ 8km/ 16km/ 32km/ 64km/ 128km/ 256km						
Pulse Width	3ns/ 5ns/ 10ns/ 30ns/ 50ns/ 80ns/ 160ns/ 320ns/ 500ns/ 800ns/ 1000ns/ 3000ns/ 5000ns/ 8000ns/ 10000ns/ 20000ns						
Loss Resolution	±0.001dB						
Loss Accuracy	±0.05dB/dB						
Sample Points	16k~256k						
Sample Resolution	0.05m~16m						
Reflection Accuracy	±3dB						
File Format	SOR Standard File Format						
Loss Measurement Mode	4-point method /5-point method						
Laser Safety Level	Class II						
Refresh Rate	3Hz						
Data Storage	Internal storage: <3000 curves; External storage: 4G bit						
Connector	FC/UPC (Interchangeable SC, ST)						
Data Storage	USB, Mini-USB, 10M/100M Ethern et Port						

OPM	
Wavelength range	800nm~1700nm
Connector	Universal FC/SC/ST
Test scope	-50dBm~+26dBm
Uncertainty	±5%
Calibration wavelength	850nm/ 980nm/ 1300nm/ 1310nm/ 1490nm/ 1550nm/ 1625nm/ 1650nm
LS	
Wavelength	Consistent with OTDR output wavelength
Output power	> -5dBm
Stability	CW, 0.5dB/15min (Test after 15 minutes of boot-up preheating)
Connector	FC/UPC (Interchangeable SC, ST)
VFL	
Wavelength	650 nm ± 20nm
Output power	≥ 10 mW
Mode	CW/1Hz/2Hz
Connector	FC/SC/ST
Others	
Display	5.6 inch Color LCD Touch Screen
Output Power	AC/DC Adapter: Input:100V~240V, 50/60Hz, 0.6A
	Output: 12V~19V, 1.5A, Li-Battery: 7.4V, 5200mAh
Battery working hours	≥10h
Operating Temperature	-10 C ~+50 C
Storage Temperature	-40 C ~+70 C
Relative Humidity	0~95% Non Condensing
Weight	≤1.2kg
Size	227mmx 160mmx 70mm

Note:

Functions of Host: OTDR/OPM/VFL/LS/Event Map/Fiber End Detection (Additional purchase detector) /Optical Loss Test

Ordering Information

No.	Name	Qty.
1	Host	1
2	AC/DC power adapter	1
3	U disk (containing analysis software/ User's Manual)	1
4	Touch pen	1
5	Data line	1
6	OTDR SC adapter	1
7	OPM SC adapter	1
8	User's Manual	1
9	Calibration certification	1
10	Certificate/ Warranty card	1
11	Clean cotton piece	10
12	Leather knob	1
13	Special backpack for instrument	1



Maxwellon Electronic Instruments Co.,LTD.

Factory: No.6 Xiangjiang Road, Qingdao 266000, China
Tel: 0086 13816527810

Sales Office: NO.153 Zhuzhou Rd.,Laoshan District, Qingdao 266100, China.
Tel: 0086-532-80977508
Fax: 0086-532-80977508

Sales: Sales@Maxwellon.com
Web: www.maxwellon.com