

Table: SUN-DS-TE-OTDR001-E

Version: A/1

SUN-OT5000 Optical Time-domain Reflectometer (OTDR)

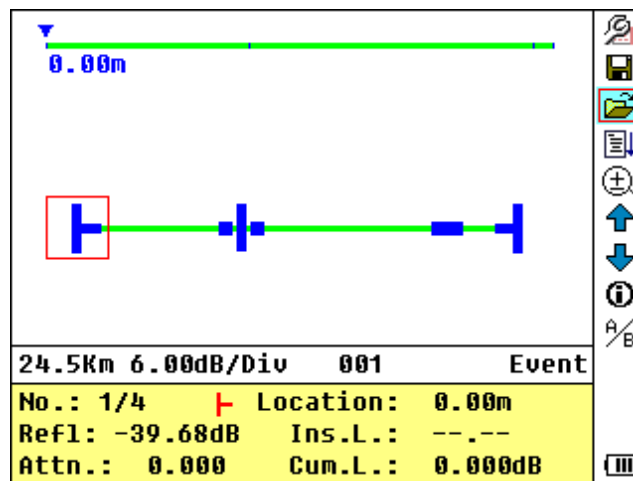
Sun Telecom's SUN-OT5000 series of handheld optical time-domain reflectometers (OTDRs) are of light weight, small size, simple operation and various functions. SUN-OT5000-PON series of OTDRs have a built-in PON power meter for Triple-play live testing. SUN-OT5000-H high configuration series are assembled with stabilized laser source, power meter and visual fault locator (VFL) modules. They can satisfy all kinds of test requirements on FTTx, WAN and backbone optical networks.



SUN-OT5000 OTDR



SUN-OT5000-MCI Test Handle



SUN-OT5000-LI Link Image software

Features

- Quick startup
- FTTX in-service testing (Up to 1:64 splitter)
- Built-in PON power meter for Triple-play testing



- High configuration series include optical light source, optical power meter, visual fault locator (VFL) and Optical Connector Inspector (MCI) modules
- USB data interface (PC software for batch data processing and report output)
- Dustproof and shockproof (2-meter drop test)
- Light weight, small size, rugged design and simple operation
- 3.5 inch LCD display
- Visual link image software (Optional)

Applications

- Optical network installation and troubleshooting
- Backbone optical network
- WAN, access network and LAN fiber test

Specifications

Parameters	Specification			
General Configuration	Wavelength ² (±20nm)	Dynamic Range (dB)	Event Dead Zone (m)	Attenuation Dead Zone (m)
SUN-OT5000-MA	850/1300	21/24	1.5	5
SUN-OT5000-S2A	1310/1550	32/30	1.8	5
SUN-OT5000-S2B	1310/1550	35/34	1.5	5
SUN-OT5000-S2C	1310/1550	40/38	0.8	4.5
SUN-OT5000-S2D	1310/1550	45/43	0.8	4.5
SUN-OT5000-S2E	1310/1550	50/48	0.8	4.5
SUN-OT5000-S3A	1310/1490/1550	38/37/37	0.8	4.5
SUN-OT5000-S3B	1310/1550/1625	38/37/37	0.8	4.5
SUN-OT5000-S1A-PON	1625	37	0.8	4.5
SUN-OT5000-S3B-PON	1310/1550/1625	38/37/37	0.8	4.5
OTDR Module				
Testing Range (km)	0.1/0.3/0.5/1.3/2.5/5/10@850nm 0.1/0.3/0.5/1.3/2.5/5/10/20/40/80@1300nm 0.3/1.3/2.5/5/10/20/40/80/120/160/240@others			
Pulse Width (ns)	10/30/100/300/1000@850nm 10/30/100/300/1000/2500@1300nm 5/10/30/100/300/1000/2500/10000/20000@others			
Testing Time (s)	15/30/60/120/180			
Distance Measure Accuracy	±(1m + 5×10 ⁻⁵ ×distance + sampling space)			
Linearity (dB)	±0.05			



Reflection Detect Accuracy (dB)	±4		
Data Storage	1000 records		
Connectivity	USB		
Optical Port	FC/SC/ST interchangeable port		
Power Supply	Nimh Rechargeable Battery/AC adapter		
Battery Life	8 hrs continuous operation, 20 hrs standby (on one charge)		
Operating Temperature (°C)	-20~+50		
Storage Temperature (°C)	-40~+70		
Relative Humidity	0~95% (non-condensing)		
Dimensions (mm)	220(L) × 110(W) × 70(H)		
Weight (kg)	1		
Visual Fault Locator (VFL) Module¹			
Wavelength (±20nm)	650		
Output Power (dBm)	≥-3		
Max Measurement Range (km)	5		
Optical Light Source Module¹			
Wavelength (±20nm)	Same as OTDR working wavelength		
Output Power (dBm)	≥-7		
Optical Power Meter Module¹			
Calibrated Wavelength (nm)	850/1300/1310/1490/1550/1625		
Measurement Range (dBm)	-70~+6 (-60~+6 @ 850nm)		
Detector Type	InGaAs		
Accuracy (nW)	± 5% ± 0.01 (±0.5dB@850nm)		
PON Power Meter Module³			
Calibrated Wavelength (nm)	1310	1490	1550
Measurement Range (dBm)	-40~+8	-40~+8	-40~+20
Power Uncertainty (dB)	≤ 0.5		
Display Resolution (dB)	0.01		
Insertion Loss (dB)	≤ 1.5		
Threshold	60		



Data Storage	1200 records
MCI Optical Connector Inspector Module¹	
Zoom	250x
Resolution (um)	0.75
Focus	Manual
Test Handle	optional
Adapter	2.5mm universal UPC male and female, 1.25mm universal UPC male, LC/UPC female and other adapters (refer to optional accessories)
Link Image Software	
Model	SUN-OT5000-LI
Function	Processing link image

- ◆ Specifications describe the instrument’s warranted performance, measured with typical PC-type connectors. Uncertainties due to the refractive index of fiber are not considered.
- ◆ The dynamic range is measured at maximum pulse width and averaging time of 3 minutes.
- ◆ Conditions for dead zone measurement: Reflection event is at 0.6Km, reflection intensity is less than -45dB; event dead zone is measured with pulse width of 10ns, attenuation dead zone is measured with pulse width of 30ns.

Note:

- (1) Visible fault locator, optical light source, optical power meter and MCI optical connector inspector modules are standard on “-H” **high configuration models**.
- (2) 1625nm can be replaced by 1650nm.
- (3) PON power meter module is standard on SUN-OT5000-S1A-PON, SUN-OT5000-S1A-PON-H, SUN-OT5000-S3A-PON and SUN-OT5000-S3A-PON-H.

Standard Package

No.	Product	Unit	Quantity
1	OTDR	set	1
2	FC Adapter	piece	1
3	Nimh Rechargeable Battery	piece	1
4	Power Adapter	piece	1
5	CD	piece	1
6	USB Cable	piece	1

Optional Accessories

No.	Product	Unit	Quantity
1	SC Adapter	piece	1
2	ST Adapter	piece	1
3	MCI Test Handle	piece	1
4	1.25mm Universal APC Male Adapter (Suitable	piece	1



	for MCI Test Handle)		
5	2.5mm Universal APC Male Adapter (Suitable for MCI Test Handle)	piece	1
6	SC/APC Female Adapter (Suitable for MCI Test Handle)	piece	1
7	FC/APC Female Adapter (Suitable for MCI Test Handle)	piece	1
8	LC/APC Female Adapter (Suitable for MCI Test Handle)	piece	1
9	Link Image Software	piece	1

Main Equipment Ordering Information

General Configuration Model	Name	Description
SUN-OT5000-MA	OTDR	MM 850/1300nm, dynamic Range: 21/24dB, FC/UPC port
SUN-OT5000-S2A	OTDR	SM 1310/1550nm, dynamic Range: 32/30dB, FC/UPC port
SUN-OT5000-S2B	OTDR	SM 1310/1550nm, dynamic Range: 35/34dB, FC/UPC port
SUN-OT5000-S2C	OTDR	SM 1310/1550nm, dynamic Range: 40/38dB, FC/UPC port
SUN-OT5000-S2D	OTDR	SM 1310/1550nm, dynamic Range: 45/43dB, FC/UPC port
SUN-OT5000-S2E	OTDR	SM 1310/1550nm, dynamic Range: 50/48dB, FC/UPC port
SUN-OT5000-S3A	OTDR	SM 1310/1490/1550nm, dynamic Range: 38/37/37dB, FC/UPC port
SUN-OT5000-S3B	OTDR	SM 1310/1550/1625nm, dynamic Range: 38/37/37dB, FC/UPC port
SUN-OT5000-S1A-PON	OTDR	SM 1625nm, dynamic Range: 37dB, FC/UPC port; Build-in PON power meter
SUN-OT5000-S3B-PON	OTDR	SM 1310/1550/1625nm, dynamic Range: 38/37/37dB, FC/UPC port; Build-in PON power meter

**High configuration (-H) series include visible fault locator, optical light source, optical power meter and MCI optical connector inspector modules*

Optional Accessories Ordering Information

SUN-OT5000-AD-SC	Adapter	SC adapter; Suitable for SUN-OT5000 optical port
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SUN-OT5000-AD-ST	Adapter	ST adapter; Suitable for SUN-OT5000 optical port
SUN-OT5000-LI	Link Image Software	Processing link image; Suitable for SUN-OT5000
SUN-OT5000-MCI-HD	MCI Test Handle	2.5mm universal UPC male and female, 1.25mm universal UPC male, LC/UPC female and other adapters; Suitable for SUN-OT5000-H high configuration series
SUN-OT5000-MCI-A1.25-M	Adapter	1.25mm universal APC male adapter; Suitable for SUN-OT5000-MCI-HD test handle
SUN-OT5000-MCI-A2.5-M	Adapter	2.5mm universal APC male adapter; Suitable for SUN-OT5000-MCI-HD test handle
SUN-OT5000-MCI-ASC	Adapter	SC/APC female adapter; Suitable for SUN-OT5000-MCI-HD test handle
SUN-OT5000-MCI-AFC	Adapter	FC/ APC female adapter; Suitable for SUN-OT5000-MCI-HD test handle
SUN-OT5000-MCI-ALC	Adapter	LC/APC female adapter; Suitable for SUN-OT5000-MCI-HD test handle

Note: For the necessity of improvement, the material contained in this document is subject to change without notice.

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