FT-4000 Series OTDR

(Optical Time Domain Reflectometer)

Features:

1. 4.3-inch HD touch screen
2. Measure distance as short as 2 meters
3. Event Dead Zone: 2m; Attenuation Dead Zone: 7m
4. 10 cm resolution for accurate mapping of event
5. Support multi-result analysis
    - segment return loss
    - event detection point return loss
    - multi-trace comparing
    - fiber attenuation by least square method
    - fiber attenuation by two point method
    - results corresponding to segments
    - interface screen shot for any display
6. Cover full range of user interface
    - Type C
    - Micro-USB,
    - SanDisk

7. Ultra-High Capacity Battery that enables continuous use in the wild and support charge with portable power bank
8. Support peripherals like mouse and keyboard (For simultaneous use, please expand with USB HUB)
9. Support both horizontal and vertical displays
10. Support RJ45 cable test

Description

ATO-A1E OTDR is used in the installation and maintenance of fiber optic cables. Acuteq OTDR has the advantage of high precision test capabilities, fast response time and easy to learn to operate. The ATO-A1E Series offers accurate and fast results and creates a report automatically.

General Specification

Display	4.3 inch HD (touch screen) Multi-Touch Operation
Battery	3.7 V/5200mAh X 1 lithium battery Continuously test: > 12 hours (back light off) Charging time: 3 hours with adapter; 10 hours with USB
Data Storage	100,000 groups of curves
Interface	Type C×1, Micro-USB×1, 16GB SanDisk
Working Temp	-10℃~+50℃
Storage Temp	-20℃~+70℃
Humidity	≤95% (non-condensation)
Accessories	Main unit, 12V power adapter, Lithium battery, FC adapter, Type C cord, User guide, carrying case, wrist belt
Dimension	7.1× 4.3×1.8 inches/ 1.54 pounds (battery included) 180×110×46 mm/ 0.56kg (battery included) (Sketch)

Test parameter

Wavelength	Single Mode	Multi-Mode

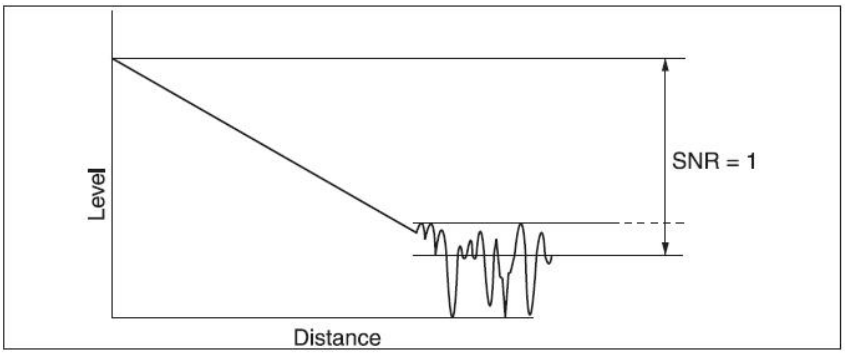
	1310nm、1550nm 、1610nm 1625nm、1650nm	850nm、1300nm
Dynamic Range	FT-4000 -M26	850/1300nm,22/26dB
	FT-4000 -D22	1310/1550nm,22/20dB
	FT-4000-D24	1310/1550nm,24/22dB
	FT-4000 -P22	1625nm ,22dB
	FT-4000 -P26	1625nm ,26dB
	FT-4000 -P22S	1610nm,22dB
	FT-4000 -P26S	1610nm,26dB
	FT-4000 -C26	1650nm,26dB
	FT-4000 -TS24	26 dB @1625nm
	FT-4000 -TP24	1310/1550/1625nm,24/22/22dB
	FT-4000 -TC24	1310/1550/1650nm,24/22/22dB
	FT-4000 -MD24	850/13001310/1550nm,22/26/24/22dB
Testing Distance	70km, 80km, 90km	
Sampling Resolution	Minimum 10cm	
Sampling Point	Maximum 64,000 points	
Linearity	≤0.05dB/dB	
scale Indication	X axis: 4~70m/div, Y axis: 0.09~5dB/div	
Loss Threshold	0.01dB	
Loss Resolution	0.001dB	
Distance Resolution	0.01m	
Distance Accuracy	±(1m+measuring distance×3×10^{-5}+sampling resolution) (excluding IOR uncertainty)	
Refraction Setting	1.2000~1.5999, 0.0001 step	
Dynamic Range	20~26dB	22dB/24dB
Dead Event Zone	1.2m/5.5m	2m/8m

List of Optional Modules

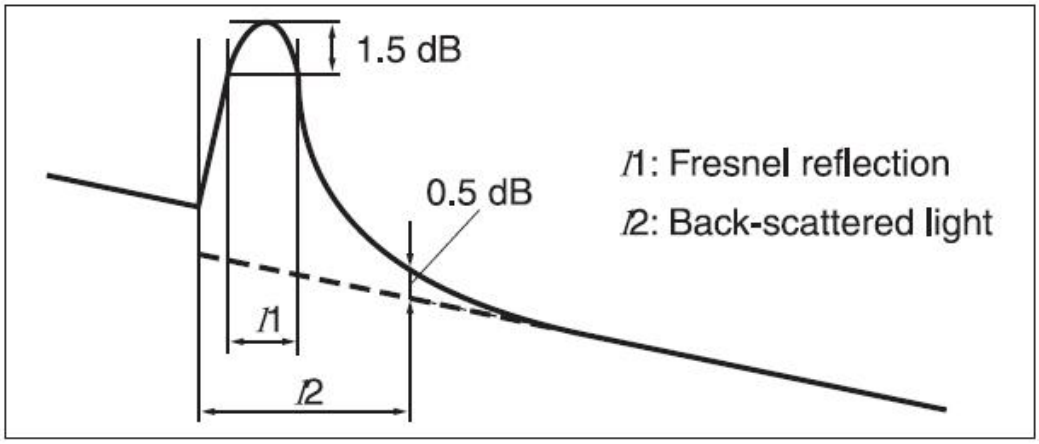
Modules	Parameter	Note
VFL Module	Optional between 1-20mW	Default: 10mW
OPM Module	Type A：+10dBm~-70dBm;	Type A as default choice
	Type B：+23dBm~-50dBm	
LS Module	Output：-5dBm±2dB	No LS Module for Mutil-mode
	Output Mode：CW/270Hz/1KHz/2KHz	
GPS/GNSS	/	Customized
WIFI/Bluetooth	/	Customized
IOT module	/	Customized
Wire Test	wire Sequence, wire length, wire tracker	

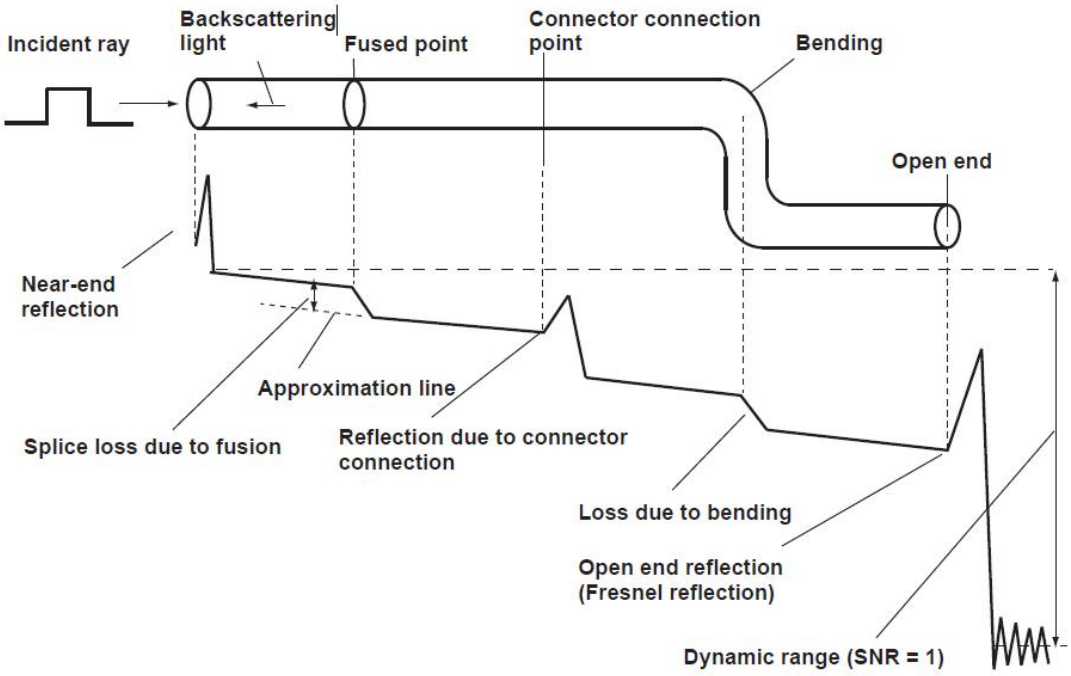
Notes:

①Dynamic range is measured with maximum pulse width, averaging time is 3 minutes, SNR=1; The level difference between the RMS noise level and the level where near end back-scattering occurs.



②Event dead zone is measured with pulse width of 3ns; attenuation dead zone is measured with pulse width of 5ns.


1.5 dB
0.5 dB
l1
l2
l1: Fresnel reflection
l2: Back-scattered light


Incident ray
Backscattering light
Fused point
Connector connection point
Bending
Open end
Near-end reflection
Approximation line
Splice loss due to fusion
Reflection due to connector connection
Loss due to bending
Open end reflection (Fresnel reflection)
Dynamic range (SNR = 1)