Product Name	**GAOTek E1 Tester**
Product SKU	**GAOTek-EIT-173**
Product URL	https://gaotek.com/product/gaotek-e1-tester-15/

Table of Contents

GAOTek E1 Tester

High-cost performance choice

Fig.: Series Optical Fiber Comprehensive Tester

1. Features

- Hand-held and portable
- High-cost performance
- 5.6-inch HD touchscreen
- Simple interface and one-button testing
- Long working hours
- Support multi-languages

2. Applications

- CATV network testing
- Access network testing
- LAN/WAN network testing
- Metro network testing

- Lab and Factory testing
- Real-time troubleshooting

3. Easy testing with FFS2100 series Optical Fiber Comprehensive Tester

With its lightweight design and user-friendly dimension, the FFS2100 series Optical Fiber Comprehensive Tester is perfect for the outside plant environment and can be easily operated with one hand. FFS2100 series Optical Fiber Comprehensive Tester ensures accurate and complete fiber evaluation while testing requires only one key to start, allowing anyone to proceed with error-free testing. Its ease of use, low price, high resolution, and compact size make it a qualified tester in the installation, operation, and maintenance of optical networks and also saves you a lot of money and time.

4. Ideal for short fiber applications

It is hard to find a high cost effective OTDR to test short fibers. Normal Fault Locators in short spans lack the resolution while common OTDR are too large, expensive and complicated. This is from GAOTek meets this need by providing all features and performances required for installation and maintenance of short fibers in a compact and mini handheld test set. It represents an unmatched level of value and ease of use, but doesn't compromise performance.
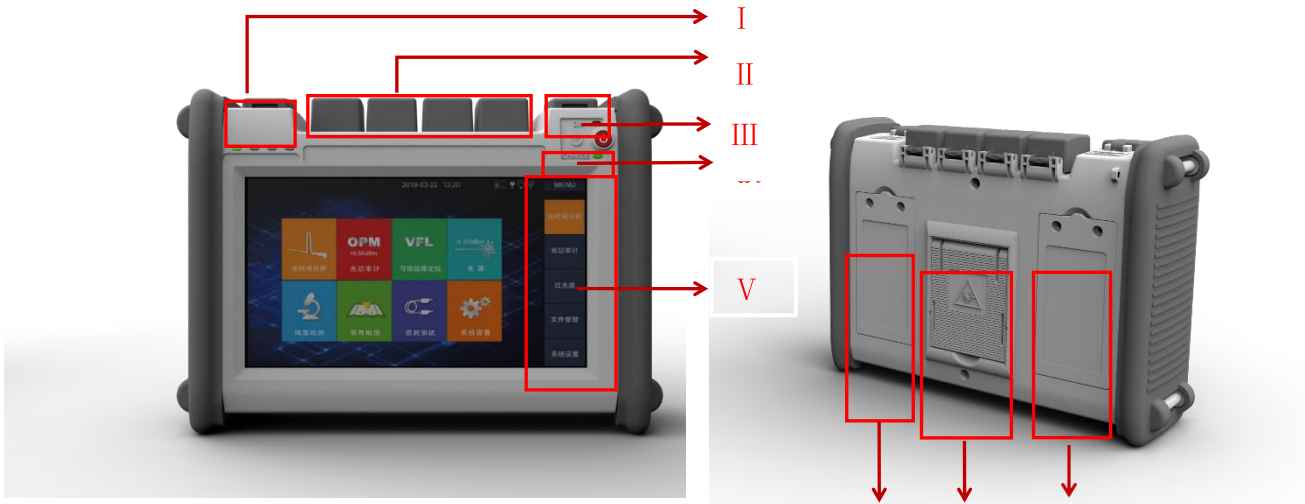
5. Structures

Number	Items	Description
I	Port 1	MINI-USB and charging port
II	Port 2	Including OTDR testing port x 2, VFL Port, Power Meter Port, Laser Source Port
III	Port 3	Including USB A, micro-SD card
IV	Indicator	Indicate module work state
		Averaging test /REAL TIME button and Autotest buttonF1~F5: select relevant sub-menu OK: confirm button ESC:

V	Key Area	cancel button MENU: back to the main menu SETUP: enter testing parameter setting interfaceFILE: enter file manager A/B： cursor A and cursor B : power button
VI VIII	Battery Bin	7.4V/2500mAh x 2
VII	Support Plate	Support OTDR on the level surface

6. Modules

Module	Wavelength(nm)	Dynamic Range(dB)①	Event/Attenuation Dead Zone(m)②
FFS2100-S-A28	1310/1550	28/26	0.8/4
FFS2100-S-A32	1310/1550	32/30	0.8/4
FFS2100-S-A35	1310/1550	35/33	0.8/4
FFS2100-S-A37	1310/1550	37/35	0.8/4
FFS2100-S-A40	1310/1550	40/38	0.8/4
FFS2100-S-A42	1310/1550	42/40	0.8/4
FFS2100-S-B26	1625	26	0.8/4
FFS2100-S-B32	1625	32	0.8/4
FFS2100-S-B35	1625	35	0.8/4
FFS2100-S-B38	1625	38	0.8/4
FFS2100-S-C26	1650	26	0.8/4
FFS2100-S-C32	1650	32	0.8/4

FFS2100-S-C35	1650	35	0.8/4
FFS2100-S-C38	1650	38	0.8/4
FFS2100-S-AB35	1310/1550/1625	35/33/32	0.8/4
FFS2100-S-AB40	1310/1550/1625	40/38/37	0.8/4
FFS2100-S-AB42	1310/1550/1625	42/40/38	0.8/4
FFS2100-S-AC35	1310/1550/1650	35/33/32	0.8/4
FFS2100-S-AC40	1310/1550/1650	40/38/37	0.8/4
FFS2100-S-AC42	1310/1550/1650	42/40/38	0.8/4
FFS2100-M26	850/1300	26/28	1.2/5
FFS2100-SM28	1310/1550/850/1300	28/26/26/28	SM: 0.8/4 MM: 1.2/5
FFS2100-SM32	1310/1550/850/1300	32/30/20/26	SM: 0.8/4 MM: 1.2/5
FFS2100-SM35	1310/1550/850/1300	35/32/22/26	SM: 0.8/4 MM: 1.2/5
FFS2100-SM40	1310/1550/850/1300	40/38/22/26	SM: 0.8/4 MM: 1.2/5
FFS2100-S-AP35	1310/1550/1490	35/33/32	0.8/4
FFS2100-S-AP38	1310/1550/1490	38/36/35	0.8/4

7. Optional Modules

| Module	Parameter	Note
VFL	1-20mW	10mW in default
OPM	Option A: -10dBm~-70dBm; Option B: +23dBm~-50dBm	Option A in default
Laser source	Output: -5dBm±2dB ，Frequency: CW/270Hz/1KHz/2KHz	
GPS/GNSS		Customized

WIFI/Bluetooth		Cucustomized
IoT module		Customized

8. Humanized Test Interface

FFS2100 could display Splice loss, Connector loss, Fiber attenuation, Reflection of points, Link optical return loss and distance to fiber events, etc. With test information in a smart way, users could get detailed information immediately.

9. Quick fit in a short time

Simplified display style and structured menus help effective in reducing the time of study.
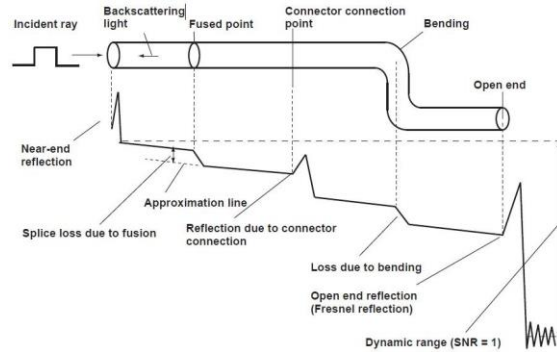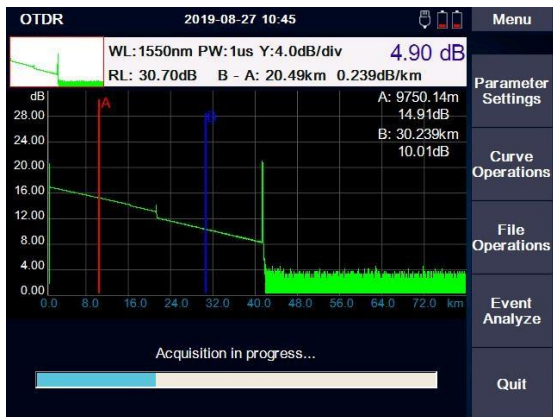
10. Be smart with an HD touch screen

A 5.6-inch true color high-resolution touchscreen is perfect for viewing OTDR testing results. It provides excellentreadability both indoors and outdoors.

11. Touch and Test

The touch screen offers a smart way to operate OTDR, even if you are wearing gloves; you could use the touch pen toset or check testing parameters.

12. Result transfer

Check test results on a PC or PDA through USB; 16GB large internal memory space could store more than 100,000groups of results.

13. Link in line

1. Download reference traces and settings from the database

2. Send measurement results via e-mail

3. Ask for remote help

14. Data Manager

Use Data Manager to elaborate and print out result files on an upper computer within a few steps.
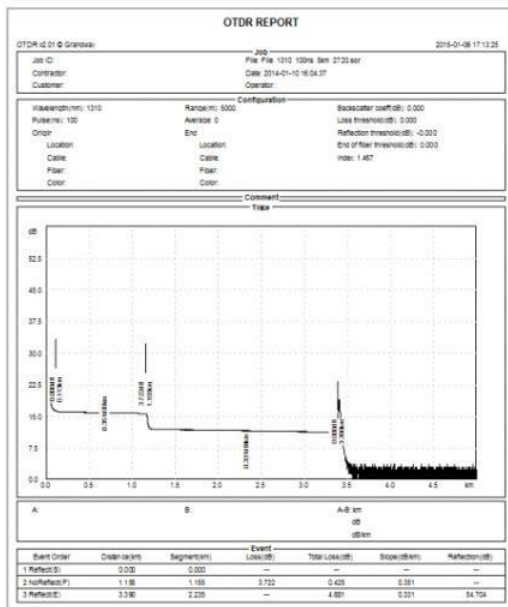
15. High Compatibility

15.1 Support:

- Windows Vista (32/64 bit system)
- Windows 7 (32/64 bit system)
- Windows 8 (32/64 bit system)
- Microsoft Office Excel 2007
- Microsoft Office Excel 2010
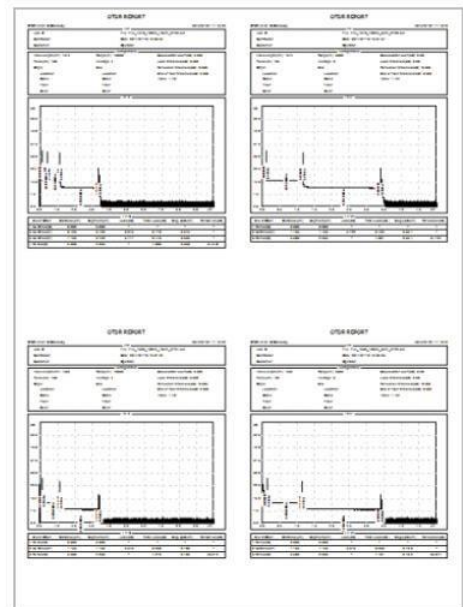- Microsoft Office Excel 2013

15.2 Delicate Report

- Simplified display style easy to read, support multi-result printing.

1 in 1

4 in 1

16. Specifications

16.1 General

Display	5.6-inch TFT-LCD (touch screen)
Battery	7.4V/2500mAh X 2 lithium battery (with air traffic certification), Continuously test: 8 hours (backlight off), ③ Charging time: 3 hours
Data Storage	100,000 groups of curves
Interface	USB A Type×1, Micro-USB×1
Working Temp	-10℃~+50℃
Storage Temp	-20℃~+70℃
Humidity	≤95% (non-condensation)
Dimension	215×155×68mm / 1.1kg (battery included)
Accessories	Main unit, 12V power adapter, Lithium battery, FC adapter, USB cord, User guide, carrying case, wrist belt

16.2 Test Parameters

Pulse Width	3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs
Testing Distance	500m,1km, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 200km, 240km

Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 256,000 points
Linearity	≤0.05dB/dB
scale Indication	X-axis: 4~70m/div, Y-axis: 0.09~5dB/div
Loss Threshold	0.01dB
Loss Resosolution	0.001dB
Distance Resolution	0.01m
Distance Accuracy	± (1m+measuring distance×3×10^{-5}+sampling resolution) (excluding IOR uncertainty)
Refractivity Setting	1.2000~1.5999, 0.0001 step

16.3 VFL Module (Optional)

Wavelength	650nm
Power	10mw, CLASS B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

16.4 OPM Module (Optional)

Wavelength Range	800~1700nm
Calibrated Wavelength	850/1300/1310/1490/1550/1625/1650nm
Test Range	-60~+5dBm
Resolution	0.01dB
Accuracy	±0.35dB±1nW

Modulation Identification	270/1k/2k Hz, Pi≥-40dBm
Connector	FC/UPC

16.5 LS Module (Optional)

| Wavelength Range	1310/1550/1625/,850/1300
Output	-5dBm±1dB
Output mode	CW/270/1k/2k Hz
Connector	FC/UPC

Notes:

1) Dynamic 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.
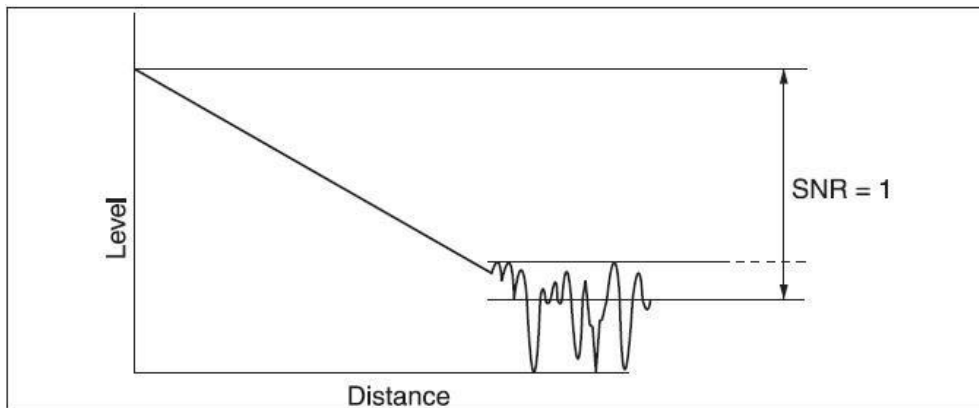
2) The event dead zone is measured with th pulse width of 3ns; the attenuation dead zone is measured with a pulse width of 5ns.
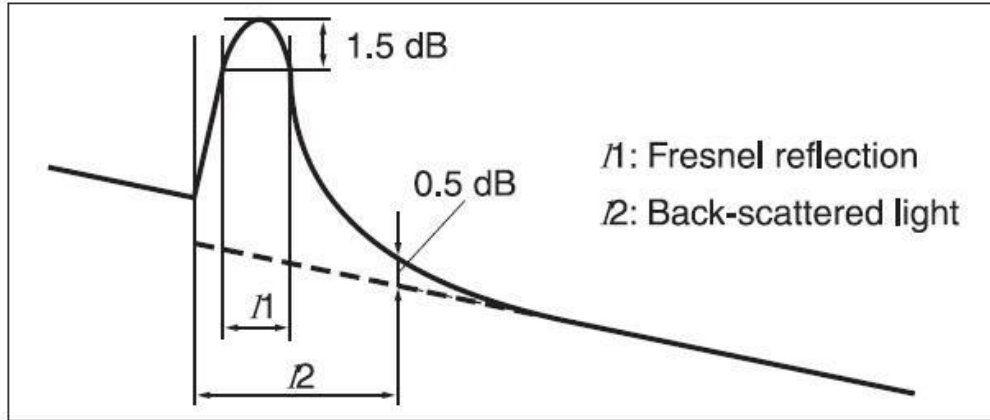
3) Typical, backlight off, sweeping halted at 25°C, 8 hours typical continuous testing.
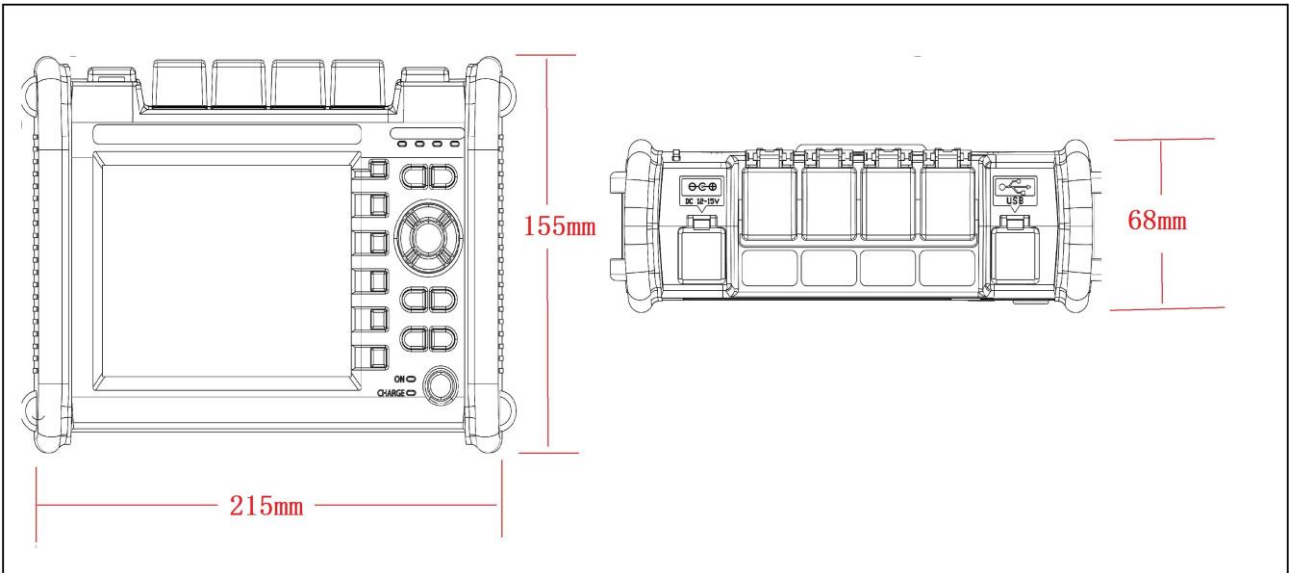
17. Ordering Information

Module Type: FFS2100-XX1-Xxx2-XX3-XX4-XX5

FFS2100: Series Name

XX1:Single mode/ Multi mode: S: Single mode, M: Multimode, SM: Single mode+ Multi mode

Xxx2: Wavelength and Dynamic Range

A: 1310/1550nm

B:1625nm

C:1650nm

D:1490nm

The dynamic range is named as the maximum dynamic range of the selected wavelength.

XX3:Optional modules:

P: Power meter

S: Laser source

G: GPS module

I: IOT module

L: Insertion loss test module

E: Event map

F: Microscope

W: wifi module

XX4: Port type: FC/SC/LC Default: FC

XX5: UPC/APC Default: UPC