

AV6416
OTDR

Key Features



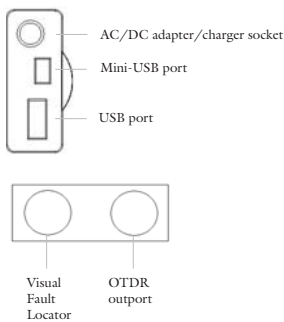
AV6416 Palm-OTDR is new Optical Time Domain Reflectometer with integrated VFL(visual fault locator).

AV6416 Palm-OTDR feature handheld, compact, lightweight, long battery life and easy-to-use.

It supports auto test, manual averaging, manual real time test mode. Besides, the AV6416 Palm-OTDR can save and transfer the measurement data to PC.

The AV6416 Palm-OTDR has become the indispensable and ideal tools for fiber

- Test can be started by pressing a single key.
- 1.6m extra-short event dead zone
- Advanced anti-reflection Touchscreen color LCD, screen optimized for outdoor use.
- USB ports(host and client): transfer and print data trace.
- Visual fault locator to inspect fibers.
- Lithium rechargeable battery support over 10 hours.
- Memory for 500 OTDR traces and possible data transfer to a computer.
- Support auto test, manual averaging, manual real time test mode.
- Online help function.
- Windows CE operating system, multi-funtional & Scalable



The Direction of Making OTDR

High Reliability

Compact Size

Modular

Light

Intelligent

Easy-to-operate

Multi-functional

Long Battery Life

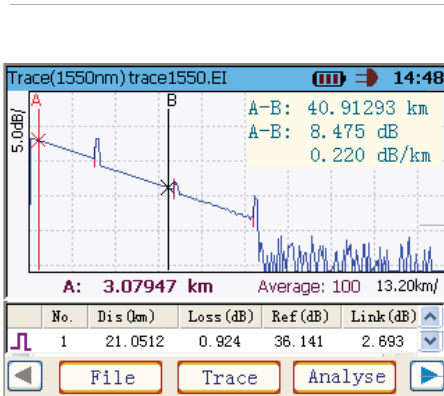
AV6416

Type	Wavelength (SMF)	Dynamic range (SNR=1) ^a
AV6416-3528	1310/1550nm ± 20nm	28/26 dB
AV6416-5626	1550/1625nm ± 20nm	26/24 dB
AV6416-3428	1310/1490/1550nm± 20nm	28 /24 /26 dB

Item And Type	Explain
USB Disk	Save data and transmitting data to PC
Fiber Tail (SMF)	
Transmission Line	Use for ActiveSync
FC-ST Fiber Tail	
FC-SC Fiber Tail	
FC-APC Fiber Tail	

SPECIFICATIONS

Item	Content
optical outport connector	FC-PC (standard)
screen	320×240 3.5-inch color LCD (Touchscreen)
range (km)	4、8、16、32、64、128、256 (SMF)
pulse width (ns)	10、30、80、160、320、640、1280、2560、10240 (SMF)
IOR	Adjust between 1.00000 to 2.00000
helix	Adjust between 0.80000 to 1.00000
resolution	Sampling resolution: 0.125m(max) Distance read-out resolution: 0.00001km Loss read-out resolution: 0.001dB
distance accuracy ²	± (1m+sample spacing+measured distance × 0.03%)
Loss accuracy	± 0.02 dB/km (SMF)
dynamic range ³	28 / 24 / 26 (1310/1490/1550) dB
event dead zone ⁴	≤ 1.6m
sampling points	up to 65535
memory capacity	500 traces (for .ei)
port	USB , Mini-USB
power supply	AC/DC (AC100~240V, 50/60Hz), DC: 15~20V,2.5A Battery life is over 10 hours (Low lightness, not sampling).
environmental	operation temperature: 0℃ to 50℃; (Charging: 5℃ to 45℃). Storage temperature: -20℃ to 60℃ (not Exclude Battery) Relative humidity: 5% to 95%RH(No Condensation)
dimensions	D×W×H: 215mm×100mm×60mm weight: about 1kg



Information Bar

The region of displaying OTDR trace and results

Event Table

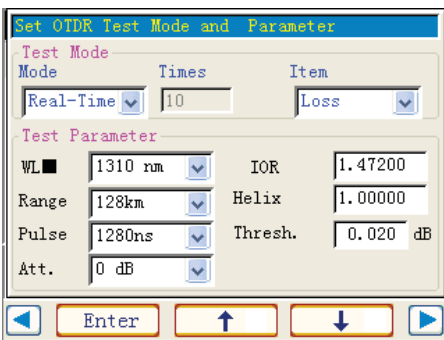
Menu Bar

Test Mode

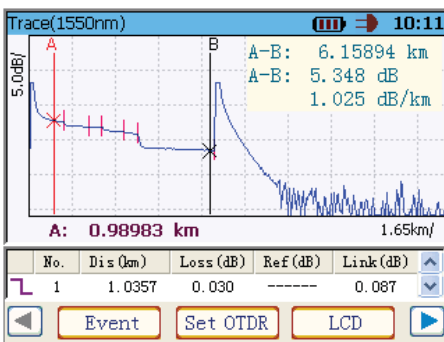
Auto: Auto Mode. The OTDR will automatically set measurement condition, and scan the trace, then OTDR will automatically analyzes the trace and make the event table.

Real-Time: Manual Real-Time mode. Set measurement condition(range, pulsewidth, att etc.) manually, then OTDR scan the trace real-time. Used to immediately view sudden changes in the fiber under test. In this mode, the trace SNR is lower than in average mode and the trace is not averaged, but refreshed, until you press [Start] again or press [Esc].

Average:Manual Average mode. Set measurement condition(range, pulsewidth, att etc.) manually, then OTDR scan the trace in average mode. Used to improve the trace SNR. In this mode, the detection of low-level events is enhanced and acquisitions are averaged for up to value of time(see following) or until you press [Start] again or press [Esc].



Setting test mode and parameters.

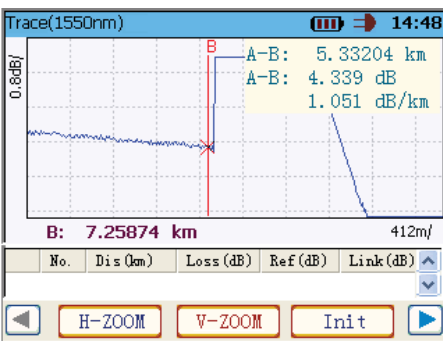
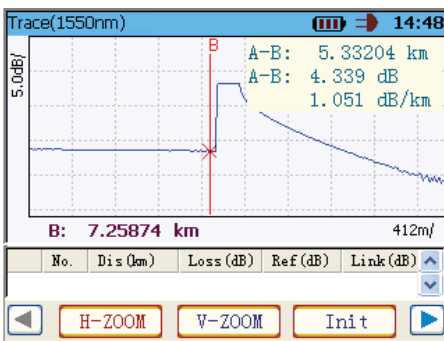


Event Table in Main Screen

No.	Dis(km)	Loss(dB)	Ref(dB)	Link(dB)
1	1.0357	0.030	-----	0.087
2	1.3788	0.649	-----	0.285
3	2.4074	-0.032	-----	1.169
4	2.9104	0.513	-----	1.316
5	3.7577	0.333	-----	2.003
6	4.3168	2.430	-----	2.477
7	7.3260	-----	33.847	5.382

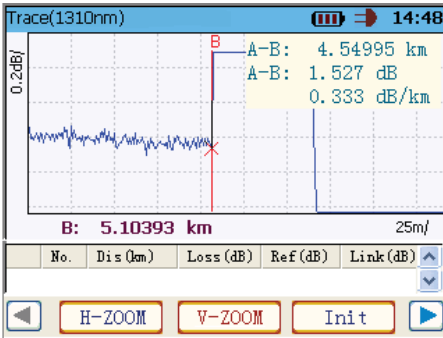
In main screen , press up arrow and down arrow to view every event in event table. See the following figure.

After analyze trace, you can view events in Event Table Screen. (If there are not events, Event Table is empty.)



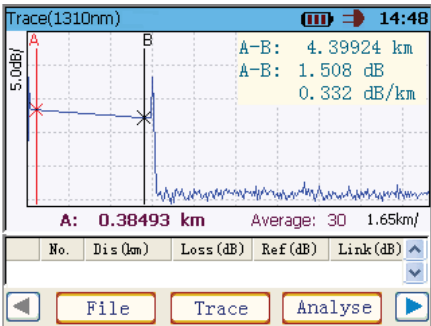
zoom in horizontally status around active cursor

zoom in vertically status around active cursor

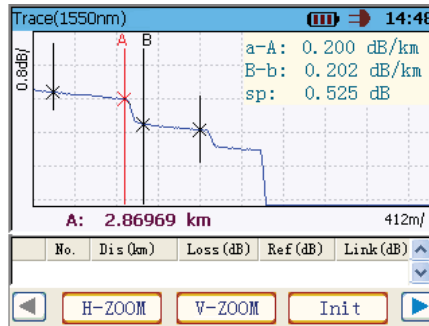


After a trace has been acquired or recalled from memory disk, you can zoom in and out of any event or trace segment to measure length, loss and attenuation of fiber section etc by placing markers manually.

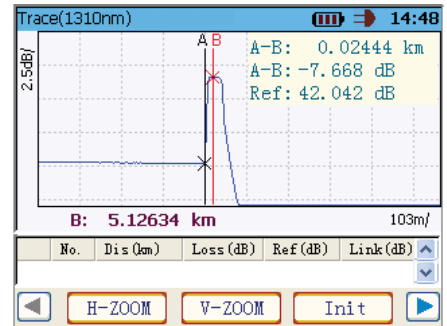
Measuring Length / Loss Of Fiber Manually



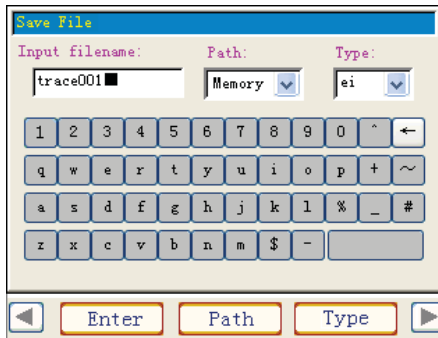
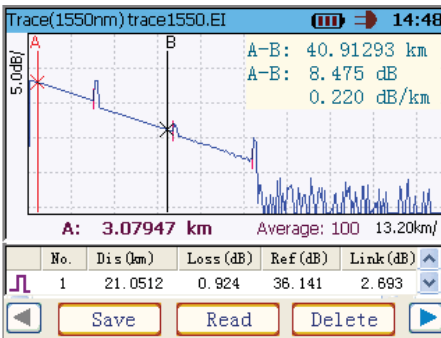
Measure Attenuation of Fiber Section



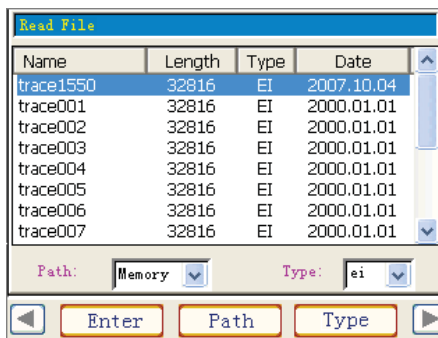
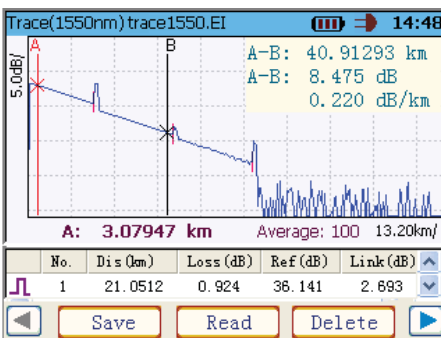
Measure Splice Loss(dB/km)



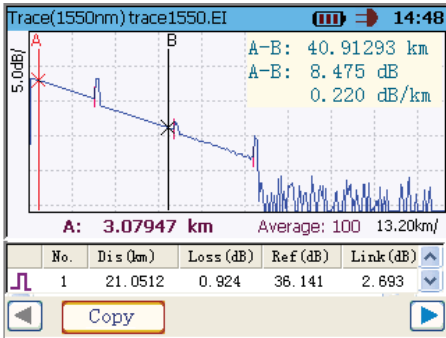
Measure Reflectance(dB/km)



To save a trace file.



To read a trace file.

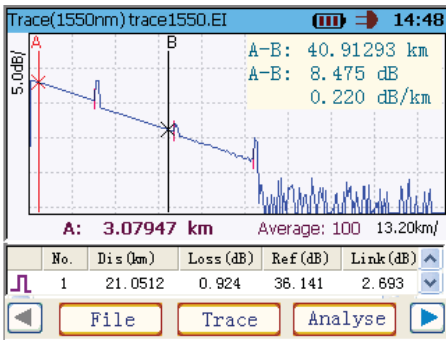


Read File

Name	Length	Type	Date
trace1550	32816	EI	2007.10.04
trace001	32816	EI	2000.01.01
trace002	32816	EI	2000.01.01
trace003	32816	EI	2000.01.01
trace004	32816	EI	2000.01.01
trace005	32816	EI	2000.01.01
trace006	32816	EI	2000.01.01
trace007	32816	EI	2000.01.01

Path: Memory Type: ei

Copy trace files from memory to USB disk.



Print Report

Please connect printer to USB port of instrument. If printer is laser printer, please select “PCL Laser”. If printer is ink jet printer, please select “PCL Inkjet”. Click down title bar of dialog box and move it left, until the system buttons of dialog box are displayed. Then press “OK” to print.

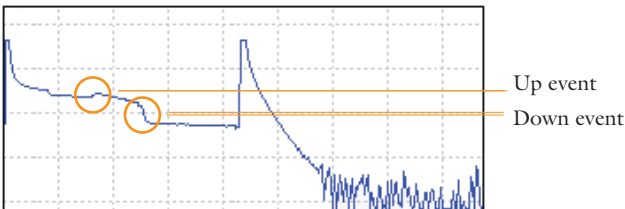
VFL Test

The visual fault locator (VFL) helps you identify bends, faulty connectors, splices and other causes of signal loss.

Press [VFL] about 4 seconds. From its dedicated port, the VFL emits a red signal which becomes visible at the location of a fault on the fiber. Here, the signal is continuous.



Event type includes reflective event, non-reflective event etc.. Reflective event includes reflective fault, reflective end. See the follow figure.



Non-reflective event includes down event, up event and non-reflective end etc..

