

## Main Features:

- ❖ Palm, lightweight, convenient to carry;
- ❖ The most advanced technology of double color & material integrative mould, strong and firm
- ❖ Advanced antireflection LCD, clear display interface in field;
- ❖ 1.6m ultra-short event dead zone, easy to test optical fiber jumper;
- ❖ Automatic & manual test function;
- ❖ Automatic detection of the communication light signal;
- ❖ Touch screen and keyboard operation;
- ❖ Two USB interfaces: can connect to the external U disk, or communicate with PC through Sync Active software;
- ❖ Support Bellcore GR196 and SR-4731 file format;
- ❖ Intelligent indication of battery capacity, alarm when the battery is running out;
- ❖ WinCE window operation system, Chinese/ English operation interface;
- ❖ Large capacity lithium battery to support over 10 hours of operation, suitable for long-time filed work;
- ❖ Built-in visible fault locator (VFL) function;
- ❖ The OTDR optical output connectors are exchangeable, so it is more convenient to clean the end surface;
- ❖ Application software on-line upgrading, no need to return back to factory



## Typical Applications:

AV6416 Palm OTDR is mainly used to test FTTx network. It provides a low cost test solution for users. AV6416 offers three test modes: manual (real-time, averaging), automatic, and dead zone.

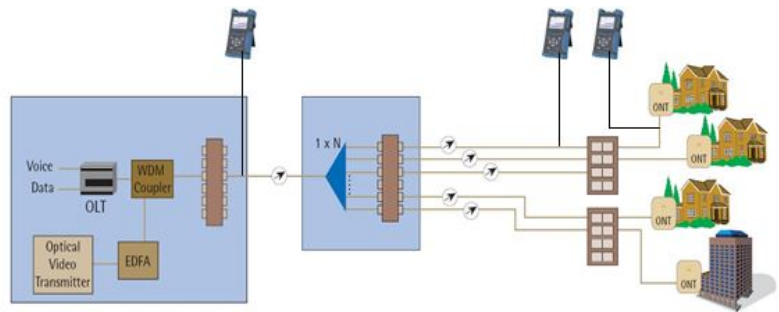
Manual test mode: manual mode is suitable for skilled operators who are familiar with the instrument, so that to get more accurate test result. In manual test mode, real-time mode or averaging mode can be selected based on user demand.

Real-time test can rapidly detect the dynamic changes of the optical fiber line. It is applicable to real-time monitor or observe the optical fiber connection process and effect.

Averaging test mode can maximally suppress the noise in the testing curve, so to get a more accurate result. Under averaging test mode, the more averaging times, the better suppression of the noise, but the longer time it takes. So, in practice, the averaging times should be set properly according to necessity.

Automatic test mode: under this mode, the instrument can automatically set the optimized test conditions, and give out the test result. There is no need for the operators to know about the complicated background knowledge and the operation details. To enhance the automatic test efficiency, the averaging times can be increased properly, though it will prolong the test time.

Dead zone mode: this mode is suitable to test the optical fiber with short distance, for example, to test the jumper length of the optical fiber. Under this mode, to get the best result, the reflection loss (or called return loss) of the fiber terminal is required to be larger than 40dB.



<https://cc-globaltech.com/product/av6416-palm-otdr/>



### Technical Specifications:

Dynamic range <sup>1</sup>	See details in “ Technical specifications of all AV6416 OTDR modules ” chart
Distance accuracy	$\pm(1m + \text{sampling spacing} + 0.003\% \times \text{distance})$ (not including refractive error)
Event dead zone <sup>2</sup>	1.6m
Distance resolution	0.25, 0.5, 1, 2, 4, 8, 16m
Distance range	0.5, 1, 2, 4, 8, 16, 32, 64, 128, 256km;
Pulse width	10, 30, 80, 160, 320, 640, 1280, 5120, 10240ns
Loss threshold	0.01dB
Sampling points	64k
Linearity	0.05dB/dB
Waveform storage capacity	$\geq 800$
Refractive index setting range	1.00000~2.00000
Display	320×240, 3.5 inch color LCD, touch screen operation
Interface language	Chinese/ English
VFL function	650nm $\pm$ 10nm, 2mW (typical); CW/1Hz
Optical output connector	FC/UPC (standard; options: LC/UPC, SC/UPC, ST/UPC)
Interfaces	USB, Min-USB
Power supply	AC/DC adapter: AC100V~240V, 50/60Hz, 1.5A DC: 15V~20V (2A) Internal lithium battery: 7.4V, 4400mAh, serving time: 10 hours (room temperature) <sup>3</sup>
Dimension	W×H×D = 100mm×210mm×60mm
Weight	About 1kg
Environmental suitability	Operating temperature: 0°C~40°C (battery charging: 5°C~40°C) Storage temperature: -40°C~70°C (battery not included) Relative humidity: 5%~95%, non-condensing

#### Notes:

1. Environment temperature: 23°C  $\pm$  2°C, max. pulse width, average times > 300, SNR=1.
2. Dead zone test mode (distance 4KM, pulse width 10ns, attenuation 10dB), fiber end reflection loss  $\geq$  40dB, typical value.
3. Low brightness, no test

### Ordering information:

- Main unit: AV6416 Palm OTDR
- Standard accessories

No.	Name	Remark
1	Power supply	Power cord, power adapter: Input voltage 100~240V, 50~60Hz, 2.0A Output voltage 19V, output current 3.42A
2	Certificate of conformity	
3	User manual	
4	CD (simulation & analysis software)	
5	Engineering plastic box (straps included)	
6	Straps especially for instruments	

Note: the standard OTDR interface type is FC/UPC, FC/APC is optional.

- Standard modules

The available modules of AV6416 palm OTDR are as follows:

Technical specifications of AV6416 modules			
Ordering number	Operating wavelength	Fiber type	Dynamic range
Modules with single wavelength			
AV6416-1101	1310nm	SMF	28
AV6416-1102	1550nm	SMF	26
AV6416-1103	1625nm	SMF	26
AV6416-1104	1625nm (build-in filter)	SMF	26
AV6416-1105	1650nm	SMF	26
AV6416-1106	1650nm (build-in filter)	SMF	26
AV6416-1107	1490nm	SMF	24
AV6416-1108	1383nm	SMF	26
Modules with two wavelength			
AV6416-2101	1310 / 1550nm	SMF	28/26
AV6416-2102	1550 / 1625nm	SMF	26/26
AV6416-2103	1550 / 1625nm (build-in filter)	SMF	26/26
AV6416-2104	1550 / 1650nm	SMF	26/26
AV6416-2105	1550 / 1650nm(build-in filter)	SMF	26/26
AV6416-2106	1310 / 1550nm	SMF	32/30

Modules with three wavelength			
AV6416-3101	1310 / 1550/ 1625nm	SMF	28 / 26 / 26
AV6416-3102	1310 / 1550 / 1625nm (build-in filter)	SMF	28 / 26 / 25
AV6416-3103	1310 / 1550 / 1650 nm	SMF	28 / 26 / 26
AV6416-3104	1310 / 1550 / 1650 nm (build-in filter)	SMF	28 / 26 / 25
AV6416-3105	1310 / 1490 / 1550nm	SMF	28 / 24/ 26

Note: One and only one module of OTDR must be selected.VFL function is not available.

● Options

NO.	Name	Model	Remark
1	USB disk		To save waveform file
3	USB cable		Communicating with PC
4	Standby battery pack	Specially for AV6416	Standby battery
5	FC/SC, FC/ST adapters	Battery pack	

Note: For the necessity of design improvement, the above content is subject to change without notice.

