

Product Overview:

AV6418C OTDR is a high-performance multifunctional test instrument designed for FTTx network. It mainly used to measure the physical characteristics of optical fiber & cables including length, transmission loss and splice loss etc. It can also accurately detect the positions of the events (such as splices, far end and breaks) along the optical fiber line. It widely applied to the engineering construction, maintenance test, and urgent repairing of optical fiber communication system, as well as the R&D, manufacturing, and test of optical fiber & cables. AV6418C OTDR adopts the most advanced technology of double color & material integrative mold, which makes it novel and beautiful in appearance, strong and firm in structure. With both touch screen and keypad, the operation is quite convenient. The built-in advanced antireflection LCD makes the operation interface clearly visible even in the field. The instrument has 4-path of optical interface, which can simultaneously realize the functions of optical power meter, VFL, Single-mode and multi-mode test. The connector type is exchangeable, which surface of the fiber. The instrument has multiple external interfaces. It can realize not only the remote control via Ethernet interface, but also the data communication with U disk, printer and PC via two different types of USB interfaces. The test result can saved in the instrument, or to the SD card via SD interface. With large capacity lithium battery, AV6418C OTDR can continuously work over 8 hours, which is very suitable for fieldwork.



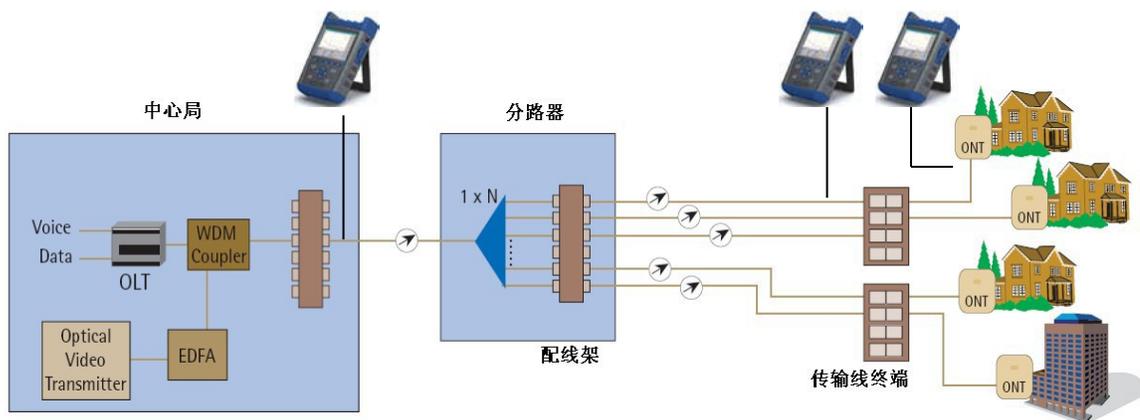
Main Features:

- $\leq 0.8\text{m}$ ultra-short event dead zone, easy to test optical fiber jumper;
- 45dB large dynamic range, 256k data sampling points;
- The most advanced technology of double color & material integrative mold, strong and firm;
- Advanced antireflection LCD, clear display interface infield;
- Various test modes, touch screen and keypad operation;
- Automatic detection of the communication light signal;
- Remote control via Ethernet;
- Two USB interfaces: can connect to the external U disk, or communicate with PC through Sync Active software;
- Support Bell core GR196 and SR-4731 file format;
- Alarm on low voltage of the battery;
- WinCE window operation system, Chinese/ English operation interface;
- Built-in visible fault locator (VFL) and optical power meter function;
- Exchangeable optical output connector, more convenient for surface cleaning;
- On-line upgrading of application software, no need to return to the manufacturer.

- Connection with external U disk or SD card;
- Connection with external printer based on USB interface;
- Data communication with PC;
- Remote control via Ethernet;
- Connection with earphone



Typical Applications:



AV6418C high-performance OTDR offers three test modes: manual (real-time, average), 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 average mode can be selected based on user demand. Real-time test can rapidly detect the dynamic changes of the optical fiber line. It is applied to real-time monitor or to observe the optical fiber connection process and effect.

Average test mode can maximumly suppress the noise in the testing curve, so to get a more accurate result. Under average mode, the more average times, the better suppression of the noise, but the longer time it takes. So, in practice, the average 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 average 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.

Technical Specifications:

Dynamic range	See details in “Technical specifications of AV6418C OTDR standard modules”
Distance accuracy	$\pm(0.75\text{m}+\text{sampling spacing}+0.0025\%\times\text{distance})$ (excluding refractive error)
Distance resolution	0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8, 16, 32m
Distance range	0.4, 0.8, 1.6, 3.2, 6.4, 16, 32, 64, 128, 256, 512km (single-mode); 0.4, 0.8, 1.6, 3.2, 6.4, 16, 32 (850nm multimode)
Pulse width	5, 10, 30, 80, 160, 320, 640, 1280, 5120, 10240, 20480ns 5, 10, 30, 80, 160, 320, 640, 1280 (850nm multimode)
Loss threshold	0.01dB
Sampling points	256k
Linearity	0.03dB/dB
Loss resolution	0.001dB
Storage capacity	≥ 800 (within the instrument), ≥ 65500 (2G SD card)
Refractive index setting range	1.00000~2.00000 (step: 0.00001)
Distance unit	km, m, K ft, ft
Display	640×480, 6.5 inch TFT color LCD (touch screen)
Optical output connector	FC/UPC (standard; options: LC/UPC, SC/UPC, ST/UPC)
Interface language	Simplified Chinese, English, Russian, Korean (can contact the Service for other languages)
External interfaces	USB, Min-USB, Ethernet, earphone, SD
Power supply	AC/DC adapter: AC100V~240V, 50/60Hz, 1.5A DC: 19V±2V(2A) Built-in lithium battery: 14.8V, 4400mAh, battery service time: 8 hours (room temperature, low brightness) (room temperature, low brightness)
Maximum power consumption	10W
Dimensions	W×H×D=186mm×295mm×75mm
Weight	About 2.5kg
Environmental suitability	Operating temperature: -5°C~+50°C (battery charging: 5°C~40°C) Storage temperature: -40°C~+70°C (battery: -20°C~60°C) Relative humidity: 5%~95%, non-condensing

● **VFL (optional module):**

Operating wavelength: 650nm±20nm
Output power: 2mW (typical) Operating mode: CW, 1Hz, 2Hz

● **Optical power meter (optional module):**

Wavelength range: 1200nm ~ 1650nm
Power range: -60 ~ 0dBm,
Test uncertainty: ±5%(-25dBm, CW)

● **Stable light source (optional module):**

Operating wavelength: same with OTDR Output power: ≥ 5 dBm
Operating mode: CW, 270Hz, 1 kHz, 2 kHz

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● Technical specifications of AV6418C OTDR standard modules¹

Module No.	Operating wavelength	Fiber type	Dynamic range ² (dB)	Event dead zone ³ m	Attenuation dead zone ⁴ m
AV6418C-1103	1625nm	Single-mode	38	0.8	10
AV6418C-1104	1625nm (built-in filter)		36		
AV6418C-1105	1650nm		38		
AV6418C-1106	1650nm (built-in filter)		36		
AV6418C-1201	850nm	Multimode	24	1.6	10
AV6418C-1202	1300nm		36	1.6	10
AV6418C-2101	1310/1550nm	Single-mode	42 / 40	0.8	10
AV6418C-2102	1310/1550nm		40 / 38		
AV6418C-2103	1310/1550nm		37 / 35		
AV6418C-2104	1550/1625nm		38 / 38		
AV6418C-2105	1550/1625nm (built-in filter)		36 / 36		
AV6418C-2106	1550 /1650nm		38 / 38		
AV6418C-2107	1550 /1650nm (built-in filter)		36 / 36		
AV6418C-2108	1310/1550nm		45 / 43		
AV6418C-2109	1310/1550nm		32 / 30		
AV6418C-2201	850mm/1300mm		Multimode		
AV6418C-3101	1310/1490/1550nm	Single-mode	39/36/38	0.8	10
AV6418C-3102	1310/1550/1625nm		39/38/36		
AV6418C-3103	1310/1550/1625nm		37/36/34		
AV6418C-3104	1310/1550 /1650nm		39/38/36		
AV6418C-3105	1310/1550/1650 nm		37/36/34		
AV6418C-4101	1310/1490/1550/1625nm		36/34/34/34		
AV6418C-4102	1310/1383/1550/1625nm		36/34/34/34		
AV6418C-4103	1310/1490/1550/1625nm		36/34/34/34		
AV6418C-4104	1310/1490/1550/1650nm		38/36/36/36		
AV6418C-4105	1310/1490/1550/1650nm		36/34/34/34		