Optical Time Domain Reflectometer



DATASHEEET/JAN 2018 Test Equipment

Overviews

This OTDR HD4102X has a 7-inch full touch screen and integrates automatic OTDR, expert OTDR, event map, OPM, VFL, LS and other functions. The OTDR has a standard dynamic range of 32dB and can achieve accurate testing up to 100km. It can achieve a minimum event dead zone of 3M and a maximum sampling resolution of 2.5cm. The OTDR is equipped with 4600mAh high density and large capacity polymer lithium battery, intelligent power saving management as well as power supply/charging by a power bank.

This can be used to measure length, loss, connection quality and other parameters of all kinds of optical fiber and cable. It is widely used in the engineering construction, line maintenance and emergency rescue test of FTTH, MAN and secondary backbone network communication system, as well as the development and production measurement of optical fiber and cable.



Application

- Standard 32dB dynamic range, 256k data sampling point;
- Automatic monitoring function of communication light;
- Support Bellcore GR196 and SR-4731file format;
- Expert OTDR: Simultaneously display of expert measurement, curve, list, MAP;
- Light source which supports continuous/modulated mode output;
- Automatic OTDR: One-click test with no complicated setup.



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Specification

HONDAO OTDR		
Model	HD4102X	
Wavelength	1310nm/1550nm±20nm	
Dynamic Range	32dB/30dB	
Event Blind Zone	1.5m	
ATT Blind Zone	8m	
Accuracy (m)	± (0.75m+distance×0.0025%+sampling period) (Regardless of refractive error) (m)	
Resolution (m)	0.025, 0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8, 16, 32	
Distance (km)	0.4, 0.8, 1.6, 3.2, 6.4, 16, 32, 64, 128, 256, 512	
Pulse width (ns)	5, 10, 30 ,80, 160, 320, 640, 1280, 5120, 10240, 20480	
Max. sampling point	256k	
Linearity (dB/dB)	0.03	
Loss resolution (dB)	0.001	
Refractive index setting range	1.00000~1.99999(0.00001 stepping)	
Distance unit	Kilometers, meters, thousands of feet, feet	
Display	800×480, 5.6 "TFT Color LCD(capacitive touch screen)	
Optical output port	FC/UPC(standard,SC/UPC is optional)	
Language	Simplified Chinese, English (please contact us for more language support)	
External port	USB Type C, Micro SD	
Power supply	AC/DC adapter: Input: AC100V~240V, 50/60Hz Output: DC/5V/2A Internal lithium battery: 3.7V, 4600mAh	
Battery working time	High brightness,standby time≥6h	
Environmental suitability	Working temperature: 0° C \sim +40 $^{\circ}$ C(battery charging: 5° C \sim 40 $^{\circ}$ C) Storage temperature: -20° C \sim +60 $^{\circ}$ C(battery: -20° C \sim 60 $^{\circ}$ C) Relative humidity: $5\%\sim95\%$, no condensing	



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OPTICAL POWER METER				
Wave Range	850nm~1650nm			
Interface Type	Universal Joint FC/SC/ST			
Test Range	-50dBm∼+26dBm			
Uncertainty	±5%			
Frequency Identification	CW/270/330/1k/2kHz			
Calibration Wavelength	850/980/1300/1310/1490/1550/1625/1650nm			
OPTICAL LIGHT SOURCE				
LD Type	FP-LD			
Output Wavelength	1550nm±20nm	1310nm/1550nm±20nm		
Output Power	≥-5dBm			
Modulation Frequency	270/330/1k/2kHz			
Stability	CW,±0.5dB/15min(Test after15mins of preheating)			
Connector	FC/UPC(Interchangeable SC、ST)			
VFL				
Work Wavelength	650nm±20nm			
Output Power	≥2mW			
Mode	CW/1Hz/2Hz			
Connector	FC/SC/ST			

Quick automatic test

Automatic testing function allows users don't need to know more details about the instrument operation which makes test steps much easier . You only need to enter the automatic test interface, connect optical fiber to corresponding OTDR port, then click on the 【Test】 button, the instrument will automatically set the corresponding test conditions and test results are given including test curve and event list etc.

Automatic light detection and alarm function

When OTDR tests fiber links, the test results will be inaccurate if there are communication optical signals in the fiber. It can even cause irrecoverable damage to the detector inside the instrument. It has the function of automatic monitoring of communication optical signals in the fiber under test. As long as the fiber under test is connected to optical port, it will automatically sense and monitor whether there is communication optical signals in the fiber in the test phase. Once the optical signals are detected, alarm information will be given in time to provide timely protection for the instrument.



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Ordering

No.	Name	Comment
1	OTDR	Internal lithium battery
2	Dower cord accombly	Input: AC100V~240V, 50/60Hz
	Power cord assembly	Output: DC/5V/2A
3	TF card	16G capacity, installed internally with analysis software
4	User's Manual	-
5	Certificate of	
	conformity	-
6	Soft bag	-



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