

# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

## Key Features

- Less than 0.8m ultra-short event blind zone
- Dynamic range maximum to 45dB
- One button Automatic Test and Real Time Test
- Built-in Optical Power Meter Function (OPM)
- Built-in Fiber Visual Fault Locator Function (VFL)
- Built-in Optical Loss Test Function (OLT)
- Built-in Intelligent Optical Network Map Function (iONM)
- Built-in Optical Loss Test (OLT)
- Built-in Optical Fiber End Face Detection Function (OFD)
- IP65 protection level, outdoor enhanced
- Unique function for Self-Diagnosis on test result
- English display and input, automatic data storage
- 5.6-inch color LCD touch screen, button/ touch dual operation

## Typical Applications

- FTTx test
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing
- Lab and factory testing
- Live fiber troubleshooting



Saluki S2106 Series Optical Time Domain Reflectometer is a high performance multi-function test instrument designed for the FTTx network. The product has a range resolution of up to 0.05m and a ultra-short event blind zone of 0.8m.

This product integrates OTDR, LS, OPM, VFL, Event Map (iONM), OLT and OFD function all in one. It adopts touch and button dual operation mode. The product has rich external interface, which can realize remote control through Ethernet interface or two different USB interface for external USB flash drive, printer and data communication with PC.

No.367, Fuxing N. Rd.,105 Taipei,Taiwan Tel: +886.909 602 109

sales@salukitec.com [www.salukitec.com](http://www.salukitec.com)



# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

---

S2106 OTDR has the unique optical fiber integrated link image display and interpretation performance function. After automatic test and analysis, each event type of the link can be displayed on the same screen (at least the fiber jumper connector, fusion point, and bending point image symbols), the relative position and absolute distance of the event, the total fiber length, total loss, and total reflection Rate (ORL) and other information. You can further check the location, loss, reflectance of each event point of the fiber, provide analysis and suggest possible obstacle reasons for the problem point, and speed up troubleshooting.

## Typical Functions

### ➤ Simple Block Image of Nodes and Obstacle Points in the Event Table

The S2106 OTDR can display the parameter including:

- 1) Link length
- 2) Splice location and loss value
- 3) Connector location, loss and reflection value
- 4) The location and loss of Macro Bending:
- 5) Total link length, total loss, and total optical return loss

### ➤ Setting the Test Parameters

- 1) Group refractive index of 1550nm fiber, the setting range: at least 1.4000 - 1.5999, Step:  $\leq 0.00001$
- 2) Optical fiber parameters required for calculation of Optical Return Loss
- 3) Threshold values for automatic test of splice loss and light reflection loss
- 4) Test average addition time or number

### ➤ Automatic and manual measurement

The S2106 OTDR can set the automatic and manual measurements including

- 1) Automatic proper distance range, pulse width setting function and multi-wavelength or single-wavelength measurement can be set
- 2) Fiber length, event point, break point location
- 3) Loss per unit length of optical fiber

# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

- 4) The relative loss between any two points of the fiber
- 5) Automatic test and manual test of fiber connection point loss
- 6) Automatic and manual Optical Return Loss test

## ➤ Multifunctional conversion

In addition to the traditional OTDR real-time, single-shot, and single-pulse trajectory interpretation, this instrument can perform single-button, single-shot automatic multiple-pulse scanning functions without shutting down, and perform automatic detection and analysis of optical fiber link obstacles.

## ➤ One-button “Auto Test” Function

The S2106 OTDR can automatically determine the event type of the entire fiber link, without the need to set parameters, press a single key, you can directly display the type of individual event points and the corresponding representative image box on the operation screen, accurately determine the event includes fusion splicing in the fiber link Point, bend point, fiber jumper connector, etc., and can display the event image position and fiber loss value.



## ➤ Ability of Blind Zone Obstacle Resolution

The S2106 OTDR has the ability to accurately analyze the combined event obstacle analysis of the long and short blind spots of the P2P network.

## Technical Specifications

OTDR									
Item	S1	S2	S3	S4	T1	T2	F1	M1	SM1
Fiber Type	SMF							MMF	SMF/MMF

No.367, Fuxing N. Rd.,105 Taipei,Taiwan Tel: +886.909 602 109

sales@salukitec.com [www.salukitec.com](http://www.salukitec.com)



# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

Wavelength (nm)	1310/1550				1310/1490/1550	1310/1550/1625	1310/1490/1550/1625	850/1300	850/1300/1310/1550
Max. Dynamic Range (dB) ①	35/33	38/36	42/40	45/43	37/35/35	37/35/35	37/35/35/35	26/28	26/28/35/33
Event Blind Zone ②	1m	0.8m	0.8m	0.8m	0.8m	0.8m	0.8m	1m	1m
Attenuation Blind Zone	6m	6m	6m	6m	6m	6m	6m	6m	6m
Measuring Accuracy	±(0.75m + Sampling interval + 0.005% x test distance) (Refractive error are not included)								
Measurement Range	0.5/1/2/4/8/16/32/64/128/256km								
Pulse Widths	3/5/10/30/50/80/160/320/500/800/1000/3000/5000/8000/10000/20000ns								
Loss Threshold	0.01dB								
Sampling Points	16k - 256k								
Sample Resolution	0.05m - 16m								
Loss Accuracy	±0.05dB/dB								
Loss Resolution	0.001dB								
Reflection Accuracy	±3dB								
Optical Interface	FC/UPC (Interchangeable SC, ST)								
File Format	SOR (standard format), PDF (analysis software)								
Loss Analysis	4-point method / 5-point method								
Laser Safety Level	Class II								
Data Storage	Internal: 100M (≤3000 curves), External: 4GB								

# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

Refresh Rate	3Hz (typ.)
Data Interface	USB, Mini USB, 10M/100M Ethernet
IOR Range	1.0 - 2.0
Device Remote Control	By LAN
Distance Unit	m, km
Given Pass/ Fail Results	Yes
Bi-directional Analysis Function	Yes
Multitasking Function	Yes
<b>OPM</b>	
Wavelength Range	800nm - 1700nm
Connector	Universal joint FC/SC/ST
Measurement Range	-50dBm to +26dBm
Uncertainty	±5%
Resolution	≤0.01dB
Display Unit	dB, dBm
Calibration Wavelength	850/980/1300/1310/1490/1550/1625/1650nm
<b>LS</b>	
Laser Source	FP-LD
Wavelength	Consistent with OTDR output wavelength
Output Power	≥ -5dBm
Stability	CW, ±0.5dB/15min
Connector	FC/UPC (Interchangeable SC, ST)

# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

VFL	
Wavelength	650nm $\pm$ 20nm
Standard Output Power	$\geq$ 10mW
Mode	CW/1Hz/2Hz
Connector	FC/UPC (Interchangeable SC, ST)
The Optical Loss Test index refers to the above LS and OPM index.	

## NOTE:

- ① Test temperature is  $25 \pm 2^{\circ}\text{C}$ , the maximum pulse width, average time is more than 30s.
- ② Test conditions of Event Dead Zone are minimum range, minimum pulse width, reflection loss of optical fiber end surface ( $>45\text{dB}$ ), typical value.

## General Information

Display	5.6 inch color LCD touch screen, English Interface
Battery	7.4V / 5200mAh Lithium battery, Max. 20 hours working time
Power Supply	AC /DC Adaptor 100V-240V, 50/60Hz, 0.6A
Environment	Operating Temperature: $-10$ to $+50^{\circ}\text{C}$ / Storage: $-40$ to $+70^{\circ}\text{C}$ , Relative humidity: 0 - 95% non condensation
Dimension / Weight	227mmx160mmx70mm / $\leq$ 1.2kg

## Standard Package

No.	Item	Qty
1	OTDR Host	1 Set
2	AC/DC Power adaptor	1 PC
3	U Disk (containing client simulation analysis software)	1 PC

No.367, Fuxing N. Rd.,105 Taipei,Taiwan Tel: +886.909 602 109

sales@salukitec.com [www.salukitec.com](http://www.salukitec.com)



# S2106 Optical Time Domain Reflectometer

Multi-Functions: OTDR / OPM / LS / VFL / OFD / Event Map / OLT

4	Data Line	1 PC
5	Touch Pen	1 PC
6	OTDR SC adapter	1 PC
7	OPM SC adapter	1 PC
8	User manual	1 PC
9	Certificate of quality	1 PC
10	Alcohol clean cotton sheet	10 PC
11	Leather knob	1 PC
12	Special backpack for instrument	1 PC

## Options

Option No.	Item
S2106-01	SFED-01 USB Handheld Optical Fiber End Face Microscope (for OFD function)

*Attention: The OTDR interface type is standard FC/UPC, FC/APC optional if needed. Due to the need for improvement, the above contents are subject to change without notice.*