

# S2110P Optical Time Domain Reflectometer

Multi-Functions: OTDR / PON / OPM / LS / VFL/ OFD

## Key Features

- Online **PON network testing** through splitters (up to 1:128)
- Wavelength range 1310/1550/1625/1650nm
- One-button auto and manual test
- Realtime / average test mode, and bi-directional analysis
- Dynamic range up to 45dB, minimum 0.8m ultra-short event blind zone
- Automatic monitoring of optical communication signals
- Integrated single-mode and multi-mode test
- Optional LS, OPM, VFL and OFD functions
- File formats of Bellcore GR196 and SR-4731 supported
- Support multiple customized language setting
- 7 inch outdoor-enhanced color LCD touch screen
- Rugged design, light weight, designed for field measurement

## Typical Applications

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



Saluki S2110P Optical Time Domain Reflectometer can be used to test single-mode wavelengths of 1310nm, 1550nm, 1625nm and 1650nm as well as customized special wavelengths. It provides multiple optional modules. With the maximum dynamic range of up to 42dB, the device can be used for remote multi-branch communication network test. It's designed with a minimum event dead zone of 0.8m which makes the near connection easy to be supervised, and the minimum sampling resolution of 2.5cm which enables it to locate

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the event point accurately.

Additionally, the device is also designed with multiple convenient functional options, such as stable light source, optical power meter, visible red light source and fiber end face inspection tester.

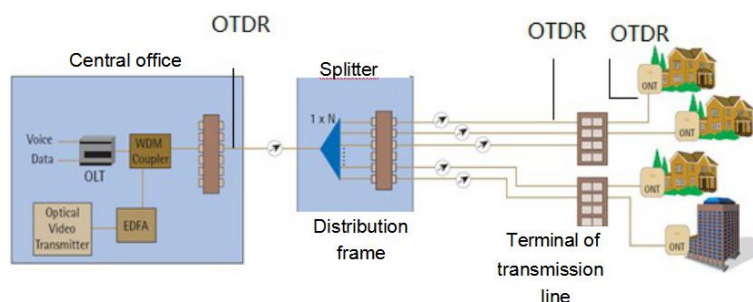
S2110P OTDR is designed with an operating temperature and a storage temperature of  $-10^{\circ}\text{C}$  to  $50^{\circ}\text{C}$  and  $-40^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  respectively to meet both EMC requirements as well as vibration and shock test requirements, a MTBF( $\theta_0$ ) of 6000h or above to ensure a high reliability, and a 75W built-in Li battery to ensure an endurance for continuous measurement in the wild field.

## ➤ Rapid automatic test

Due to the automatic test function of S2110P, it's convenient for the user operation. Connect the optical fiber and press the [Test] button. Then, the device will set the optimum test conditions automatically, and finally output accurate test results, such as the test curve and the list of events.

## ➤ Unique PON network test

When the OTDR is testing the optical fiber line, the optical communication signal in the optical fiber, if any, will lead to inaccurate test results and even unrecoverable damages to the detectors in the device. S2110P can monitor the optical communication signal in the optical fiber under test automatically. As long as the optical fiber under test is connected to the optical interface of S2110P, the device can automatically sense and monitor whether there is optical communication signal in it. Once an optical signal is monitored, it will prompt an alarm in time, so as to provide the quickest and the most timely protection for the device.



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## Technical Specifications

OTDR					
Module	S2110P-3102	S2110P-3102V	S2110P-3103	S2110P-3104	S2110P-3105
Wavelength	SM 1310/1550/162 5nm ± 25nm (built-in filter)	SM 1310/1550/162 5nm ± 25nm (built-in filter)	SM 1310/1550/162 5nm ± 25nm (built-in filter)	SM 1310/1550/165 0nm ± 25nm (built-in filter)	SM 1310/1550/165 0nm ± 25nm (built-in filter)
Maximum Dynamic Range <sup>2</sup>	37/35/35dB	38/38/37dB	42/40/40dB	37/35/35dB	45/42/42dB
Event Blind Zone <sup>3</sup>	1.5m	1.5m	0.8m	0.8m	1.5m
Attenuation Blind Zone <sup>4</sup>	8m	8m	4.5m	4.5m	8m
Measuring Accuracy	±(0.75+ sample interval+0.0025% × test distance) (refractive error are not included)				
Sampling Resolution	0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8, 16 and 32m				
Test Range	0.4, 0.8, 1.6, 3.2, 6.4, 16, 32, 64, 128, 256 and 512km				
Pulse Width	3, 5, 10, 30, 80, 160, 320, 640, 1280, 5120, 10240 and 20480ns				
Sampling Points	Max. 256k				
Linearity	0.03dB/dB				
Loss Resolution	0.001dB				
Refractivity Setting Range	1.00000 - 1.99999, 0.00001 step				
Distance Unit	km, m, thousand feet, feet				
File Format	.SOR, .EI, .PDF and .JPG				
Optical Interface	FC/UPC (Optional LC/UPC, SC/UPC and ST/UPC)				
Optical Power Meter					
Wavelength Range	1200nm - 1650nm				

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Power Range	-60dBm to 0dBm
Uncertainty	±5% (CW, -25dBm)
Optical Interface	FC/UPC (Optional LC/UPC, SC/UPC and ST/UPC)
<b>Laser Source</b>	
Wavelength	Consistent with OTDR output wavelength
Output Power	≥-5dBm
Operating Mode	CW, 270Hz, 1kHz and 2kHz
Optical Interface	FC/UPC (Optional LC/UPC, SC/UPC and ST/UPC)
<b>Visual Fault Locator</b>	
Wavelength	650nm±20nm
Output Power	2mW (typical)
Operating Mode	CW, 1kHz and 2kHz
Optical Interface	FC/UPC (Optional LC/UPC, SC/UPC and ST/UPC)

## General Information

Display	800×480, 7-inch TFT color LCD capacitive touch screen
Data Storage	Internal 8GB
Data Interface	USB, Micro-USB, 10M/100M Ethernet, Earphone and Micro SD
Power supply	AC/DC adapter: AC100V-240V, 50/60Hz and 1.5A DC: 17V±3V(2A) Internal Li battery: 11.1V, 6800mAh, battery operating time: 8h <i>(the battery is removable for replacement)</i>
Maximum power consumption	10W
Dimensions	252mm(W) × 180mm (H) × 55mm (D)
Weight	About 1.8kg

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Environmental adaptability	Operating temperature: -10°C to +50°C (battery charging: 5°C to 40°C) Storage temperature: -40°C to +70°C (battery: -20°C to 60°C) RH: 5% - 95%, no condensation
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## NOTE:

1. One must and only one can be chosen for the standard module.
2. An ambient temperature of 23°C±5°C, the maximum test PW, over 500 times averagely, and a SNR of 1.
3. A range of 1.6km or smaller, a PW of 3ns, a fiber end face reflection loss of 40dB or above, and a typical value.
4. A range of 1.6km or smaller, a PW of 5ns or smaller, a fiber end face reflection loss of 50dB or above, and a typical value.


## Standard Package

Num	Item	Qty
1	S2110P OTDR host	1 Set
2	Power line	1 PC
3	Power adapter	1 PC
4	User manual	1 PC
5	CD (contains analysis software)	1 PC
6	SC/FC adapter	1 PC
7	Certificate of quality	1 PC
8	Special portable soft bag	1 PC
9	Special strap of OTDR	1 PC

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## Options

No.	Description	Function
S2110P-001	USB Disk	Capacity $\geq$ 4GB
S2110P-002	SD Card	Capacity $\geq$ 8GB
S2110P-003	USB Data Cable	Length $\geq$ 0.5m
S2110P-004	Spare Battery Pack	Special battery pack for S2110P
S2110P-005	LC Adapter	/
S2110P-006	SC Adapter	/
S2110P-007	ST Adapter	/
S2110P-008	VFL	Wavelength $650\text{nm} \pm 20\text{nm}$
S2110P-009	OPM	Wavelength range: 1200nm - 1650nm
S2110P-010	LS	Wavelength: the same as OTDR Output power: $\geq -5\text{dBm}$
S2110P-011	Special Carrying Case	
S2110P-012	Optical Fiber End Detection Probe	$\geq 200\text{X}$ magnification, USB port
S2110P-013	WiFi Module	/

**Attention:** Due to the need for improvement, the above contents are subject to change without notice.

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