

# S2106X 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 up to 45dB
- One button Automatic Test and Real Time Test
- Internal 8GB storage, automatic data storage
- 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 Fiber End Face Detection Function (OFD)
- IP65 protection level, outdoor enhanced
- Unique function for Self-Diagnosis on test result
- 2 USB ports, Mini USB, 10M/100M Ethernet port
- 7-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 S2106X 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. S2106X is an upgraded version with larger display, higher operation speed and more friendly UI.

This product integrates OTDR, light source, 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.

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## Technical Specifications

| OTDR                      |  |       |       |       |                        |                        |                                 |          |                        |
|---------------------------|--|-------|-------|-------|------------------------|------------------------|---------------------------------|----------|------------------------|
| Item                      | S1   | S2    | S3    | S4    | T1                     | T2                     | F1                              | M1       | SM1                    |
| Fiber Type                | SMF  |       |       |       |                        |                        |                                 | MMF      | SMF/MMF                |
| Wavelength (nm)           | 1310/1550  |       |       |       | 1310/<br>1490/<br>1550 | 1310/<br>1550/<br>1625 | 1310/<br>1490/<br>1550/<br>1625 | 850/1300 | 850/1300/<br>1310/1550 |
| Max. Dynamic Range (dB) ① | 35/33  | 38/36 | 42/40 | 45/43 | 37/35<br>/35           | 37/35<br>/35           | 37/35/<br>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)<br>(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)   |       |       |       |                        |                        |                                 |          |                        |

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|                                  |   |
|----------------------------------|---|
| Loss Analysis                    | 4-point method / 5-point method               |
| Laser Safety Level               | Class II                                      |
| Data Storage                     | Internal storage: 8GB, External storage: 4GB  |
| Refresh Rate                     | 3Hz (typ.)                                    |
| Data Interface                   | 2 USB ports, Mini USB, 10M/100M Ethernet port |
| 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 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)               |

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| 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            | 7 inch color LCD touch screen, English Interface   |
| Battery            | 7.4V / 5200mAh Lithium battery, Max. 20 hours working time   |
| Power Supply       | AC/DC adapter:<br>Input: 100V - 240V, 50/60Hz, 0.6A; Output: 12V - 19V, 1.5A   |
| Environment        | Operating Temperature: $-10$ to $+50^{\circ}\text{C}$ / Storage: $-40$ to $+70^{\circ}\text{C}$ ,<br>Relative humidity: 0 - 95% non condensation |
| Dimension / Weight | 227mmx160mmx70mm / $\leq$ 1.2kg  |

## Standard Package

| Num | Item                | Qty  |
|-----|---------------------|------|
| 1   | S2106X OTDR Host    | 1 PC |
| 2   | AC/DC Power adaptor | 1 PC |

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|    |   |       |
|----|---|-------|
| 3  | U Disk (containing client simulation analysis software) | 1 PC  |
| 4  | Data line   | 1 PC  |
| 5  | OTDR SC adapter   | 1 PC  |
| 6  | OPM SC adapter  | 1 PC  |
| 7  | User manual   | 1 PC  |
| 8  | Certificate of Quality                                  | 1 PC  |
| 9  | Alcohol clean cotton sheet                              | 10 PC |
| 10 | Leather knob  | 1 PC  |
| 11 | Special backpack for instrument                         | 1 PC  |

*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.*