# AE3100 Series Handheld OTDR

**DEVISER**®

## Description

From Deviser Instruments' 4th generation of OTDR, the fieldportable AE3100 marks a giant leap forward in fiber-optic measurement performance and utility.

Featuring intuitive touchscreen controls, a modular platform, real-time data analysis, and more, the AE3100 is the ideal test instrument for constructing, deploying, maintaining, and authenticating FTTH networks - as well as verifying access networks. Multiple models and configuration options ensure your unique measurement needs are covered. Dual or multiple wavelengths from 28 to 45dB available.

## Key Features

- 7", 800x480 LCD touchscreen places power and convenience at your fingertips
- 0.8m event dead zone, 3m attenuation dead zone; excellent short distance performance
- Broad dynamic range coverage (28 - 45 dB)
- Min. 5cm resolution
- Intelligent analysis of events
- Excellent stability and repeatability
- "FiberPass" intelligent analysis feature
- Multiple options for your measurement needs,including VFL; power meter; light source; optical fiber microscope; QAM analysis module
- Complete user data ports; support LAN, USB, SD, & more
- The results support a variety of analysis functions, such as ORL, 4pt, define section etc

## Applications

- Construction, deployment, maintenance and authentication of FTTH net.
- Construction, deployment, maintenance and authentication of LAN based fiber.
- Construction, deployment, maintenance and authentication of MAN based fiber.

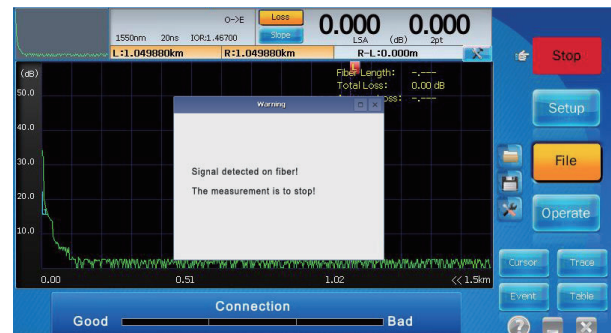## Excellent characteristics of short distance measurement
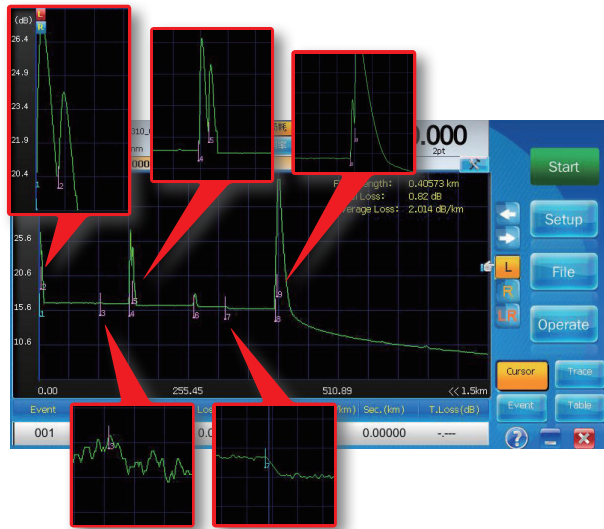


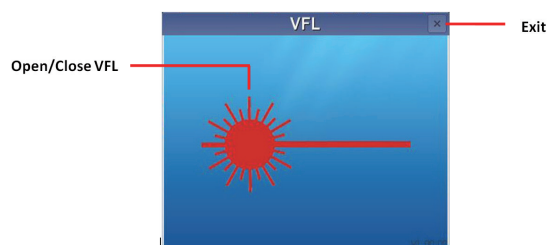## Excellent splitter penetrating ability



## Macrobending test



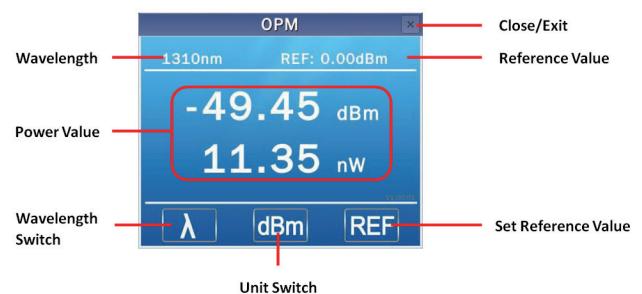## Port state intelligent detection alarm



## Options module introduce

### 1. Visual Fault Locator



Exit

Open/Close VFL

### Specifications

| | |
|---|---|
| Wavelength | 650 nm±10 nm |
| Output Power | ≥10mW |
| Measuring Range | >10km |
| Laser Safety | IEC 60825 -1: 2007 |

### 2. Optical Power Meter



Wavelength — 1310nm    REF: 0.00dBm — Reference Value

Close/Exit

Power Value — -49.45 dBm / 11.35 nW

Wavelength Switch — λ    dBm    REF — Set Reference Value

Unit Switch

### Specifications

| | |
|---|---|
| Calibrated Wavelength | 1310 nm/1550nm |
| Wavelength Range | 850nm/980nm/1300nm/1310 nm/1490nm/1550nm/1610nm |
| Measurement Range | -70dBm ~ +10dBm |
| Accuracy | ±0.17dB |

## 3. FiberSpot



- Pass/Fail evaluation
- Image Hold
- Image Save
- Image Zoom
- Brightness Adjustment
- Definition Adjustment
- Contrast Adjustment
- Close/Exit
- Version Information
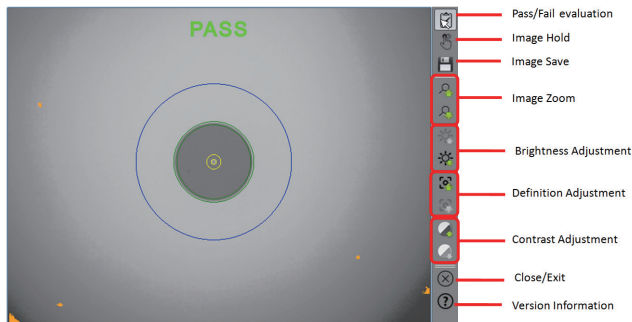
### Specifications

| Model type | DS-100 | DI-1000 |
|---|---|---|
| PASS/FAIL Evaluation | NO | YES |
| Amplification Factor | 250X | |
| Resolution | 0.5μm | 0.5μm |
| Field of View | 400μm x 310μm | 425μm x 320μm |
| Interface | USB2.0/1.1 | USB2.0 |
| Focus | Manual adjustment | Manual adjustment, 2mm max travel |
| Interface type | 2.5mm-PC-M; SC-PC-F;1 .25mm-PC-M; LC-PC-F; 2.5mm-APC-M; FC-APC-F | PT2-U2.5/APC/M; PT2-FS/APC/F; DI1-CASE-S; CVF-CD; |

## 4. Light Source



- Choose Wavelength
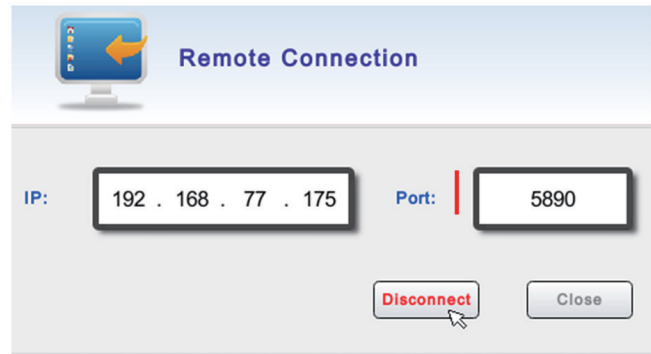- ON/OFF
- Modes of Operation
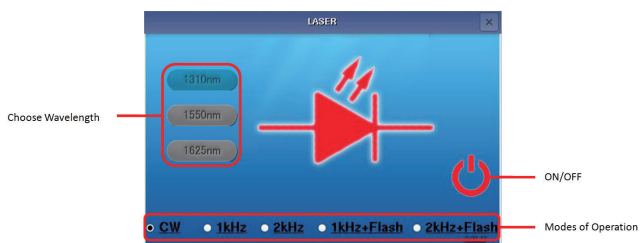
### Specifications

| Model | Wavelength | Output Power | Output mode |
|---|---|---|---|
| AE3100A/B | 1310nm/1550nm | >-11dBm | CW/1kHz/2kHz/ 1kHz+Flash/ 2kHz+Flash |
| AE3100C/D/E/F | | | |
| AE3100CP-1 | 1310nm/1550nm/1625nm | >-4dBm | |
| AE3100CP-2 | 1310nm/1550nm/1650nm | | |
| AE3100CP-3 | 1310nm/1550nm/1490nm | | |

## 5. FiberPass
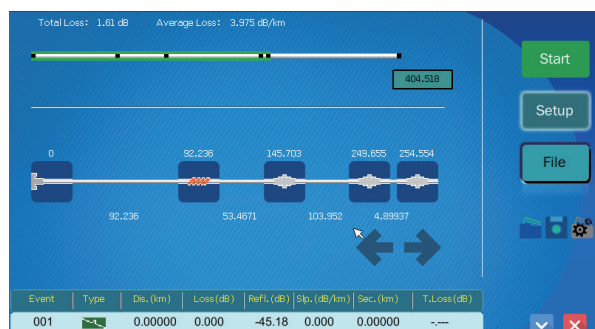


## 6. Remote control

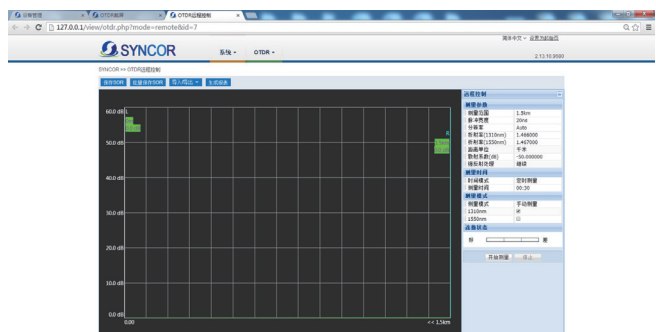a. First, Setup sever IP address in AE3100



b. In the PC side, SYNCOR software >> Equipment management interface, refresh the interface, you will see the OTDR device, as shown below:



c. Click on the "remote control", as shown below:



d. The success of the remote communication, there will be a test interface, as shown below:



e. After setting the measurement parameters in the measurement settings, click the "start " button, then start remote measurement. Click the "stop" button to stop the measurement.

## Specifications

| Model | AE3100A | AE3100B | AE3100C | AE3100D | AE3100CP-1 | AE3100CP-2 | AE3100CP-3 |
|---|---|---|---|---|---|---|---|
| **General Parameter** | | | | | | | |
| Wavelength(nm) | 1310/1550 | | | | 1310/1550/1625 | 1310/1550/1650 | 1310/1550/1490 |
| Wavelength Accuracy(nm) | ±20 | | | | | | |
| Dynamic(dB) | 30/28 | 34/32 | 36/34 | 40/38 | 37/35/35 | | |
| Event Dead Zone(m) | ≤1.5m | ≤1.0m | ≤0.8m | | | | |
| Attenuation Dead Zone(m) | ≤5m | ≤5m | ≤4m | ≤3m | | | |
| Distance Range | 100m, 400m, 1.5km, 3km, 6km, 12km, 25km, 50km, 100km, 200km, 400km | | | | | | |
| Sampling Resolution(m) | 0.1~12.8 | | 0.05~12.8 | | | | |
| Sampling Point(m) | 256000 | | | | | | |
| Distance Accuracy(m) | ±(0.75m + 0.005% x Distance + Sampling Resolution) | | ±(0.75m + 0.001% x Distance + Sampling Resolution) | | | | |
| Loss threshold | 0.01dB | | | | | | |
| Loss resolution | 0.001 dB | | | | | | |
| Pulse Width | 3ns, 5ns, 10 ns, 30 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1μs, 2μs, 5μs, 10μs, 20μs | | | | | | |
| Measurement Time Range | 5s~5min, real time | | | | | | |
| Memory Capacity | 80,000 OTDR traces, exportable to USB or Computer | | | | | | |
| Test mode | Manual, AUTO | | | | | | |
| Threshold setup | Manual, AUTO | | | | | | |
| Custom threshold setup | 8 groups | | | | | | |
| Distance offset setup | YES | | | | | | |
| UI style | 4 | | | | | | |
| Autocorrect | YES | | | | | | |
| Online Support | YES | | | | | | |
| Factory Reset | YES | | | | | | |
| OTDR Trace Format | Compatible of Bellcore GR-196 V1.1 *.SOR | | | | | | |
| Loss Modes | 2-pt LSA, 2-pt loss, 4-pt | | | | | | |
| Screen Shot | YES | | | | | | |
| Soft Keyboard | YES | | | | | | |
| Browser | YES | | | | | | |
| Auto Shutdown and Hibernate | YES | | | | | | |
| Double Wavelength Test | YES | | | | | | |
| Macrobending Test | YES | | | | | | |
| Real Time Test | YES | | | | | | |
| FiberPass | YES | | | | | | |
| Remote | YES, SYNCOR required | | | | | | |
| **Other Parameter** | | | | | | | |
| Display | 7 inch (178mm) 800×480 dot matrix TFT touch screen | | | | | | |
| Interface | USB2.0 ×2, RJ45×1, LAN×1(10M/100M), TF×1(Max,64GB) | | | | | | |
| Battery autonomy | 11 hours of measurement usage (Max) | | | | | | |
| Language | Chinese, English, Spanish, Portuguese, French, Russian, Italian (German, Korean and Arabic are optional) | | | | | | |
| Dimension(L×W×D) | 206 mm x 171 mm x 75mm, Inches: 8.11" x 6.73" x 2.95" | | | | | | |
| Weight(kg & lbs) | < 2kg or < 4.41lbs | | | | | | |