



Advanced Test Equipment Corp.  
www.atecorp.com 800-404-ATEC (2832)

Product Introduction

**Anritsu** envision : ensure

# ACCESS Master MT9085 Series

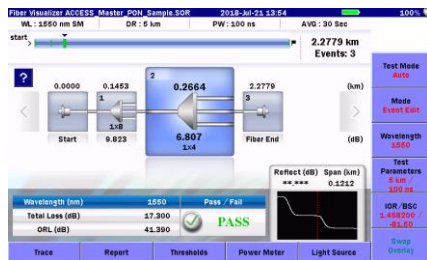
# Strengthen of MT9085 Series: 1/5

- All Optical Fiber Evaluation Functions in One Tester

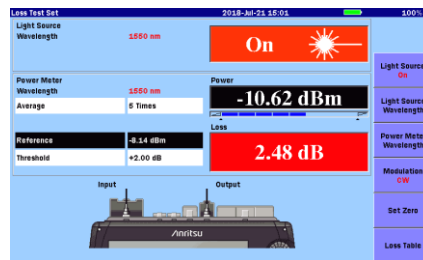


- The ACCESS Master MT9085 series is an all-in-one tester with OTDR, OLTS, and Visible Light Source functions required for evaluating optical fiber transmission links. It supports optical loss and reflectance measurements and analysis as well as evaluation of fiber events.
- In addition, connecting an external fiberscope (VIP—sold separately) enables inspection and automatic Pass/Fail evaluation of scratches and contamination on the fiber end face.

## <OTDR>



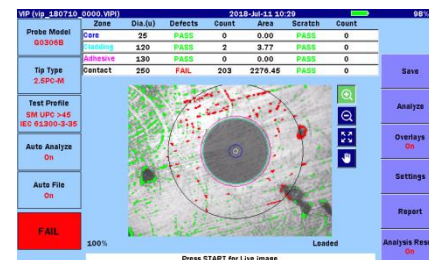
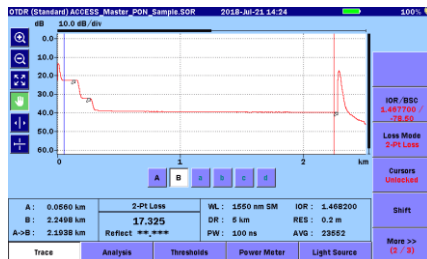
## <OLTS, Power Meter>



## <Video Inspection Probe (VIP)>



## <Visual Light Source (VLS)>



# Strengthen of MT9085 Series: 2/5

- Pursuing Easy On-site Measurement

Keeps Basic ACCESS Master Design Concept

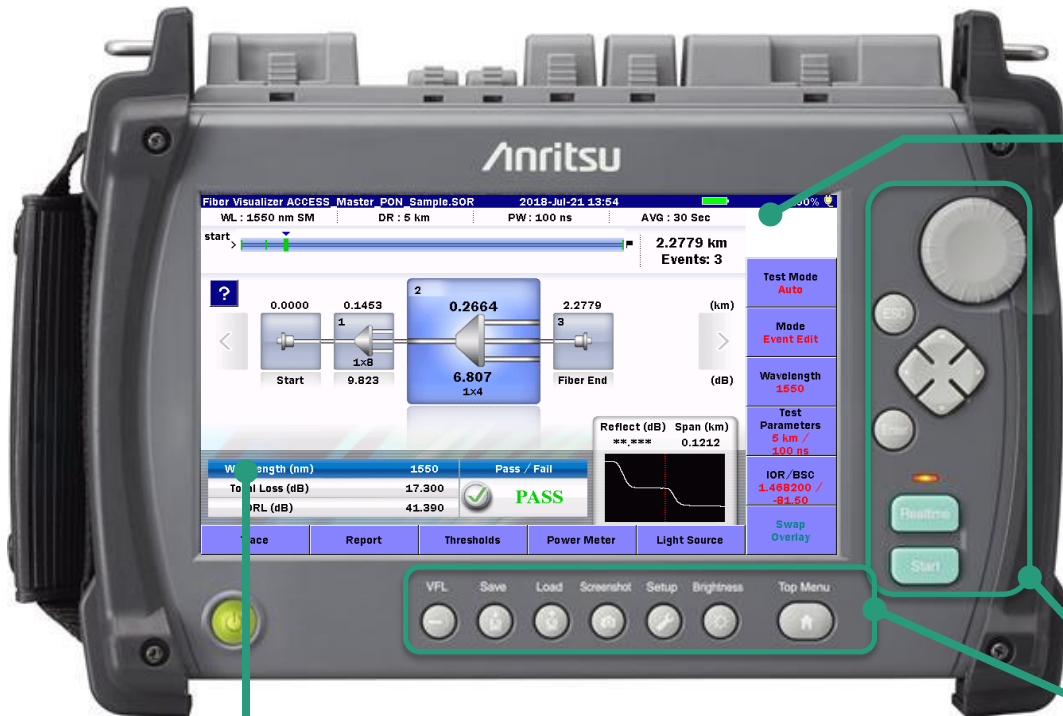
- Compact and Lightweight
- 12-hour Battery Operation

8-inch  
Wide Touch  
Screen

Improved operability due to synergy between **large touchscreen** and **hard keys** with no need to remove work gloves

Hard  
keys  
Easy Operation

Built-in rotary knob, hard keys and shortcut keys for efficient manual trace analysis



Easy  
Analysis

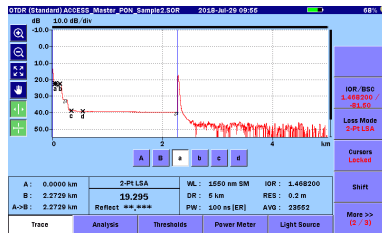
Fiber Visualizer

At-a-glance confirmation of loss and reflectance measurement results **Pass/Fail** evaluation using fiber event icon schematics

Fiber Visualizer

# Strengthen of MT9085 Series: 3/5

- Improved Operability with 8-inch Wide Touchscreen and Hard Keys



- OTDR Trace Analysis
  - Trace magnification
  - Cursor operation and marker positioning
- Easy analysis using synergy of both touchscreen and hard keys
- Data Saving and Report Creation
  - Intuitive data file naming using touchscreen input matrix
- Fast Application Start
  - File saving/loading
  - Screen capture
  - Visual light source
- Start applications using shortcut keys without screen transitions

# Strengthen of MT9085 Series: 4/5

- Easy-to-Read Measurement Results Pass/Fail Evaluation

The image displays three screenshots of the MT9085 Series software interface, each highlighting Pass/Fail evaluation results. The first screenshot, labeled 'VIP', shows a table of defect analysis results with a 'FAIL' indicator in a red box. The second screenshot, labeled 'OTDR', shows a trace with a 'PASS' indicator in a green box. The third screenshot, labeled 'OLTS, Optical Power Meter', shows a power measurement of 2.14 dB with a 'FAIL' indicator in a red box.

**VIP**

| Probe Model | Core | Cladding | Adhesive | Contaminant |
|-------------|------|----------|----------|-------------|
| 60306B      | 25   | 120      | 130      | 250         |
|             | PASS | PASS     | PASS     | FAIL        |
|             | 0    | 2        | 0        | 203         |
|             | 0.00 | 3.77     | 0.00     | 2276.45     |
|             | PASS | PASS     | PASS     | PASS        |
|             | 0    | 0        | 0        | 0           |

**OTDR**

Analysis Result: **PASS**

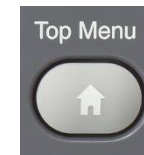
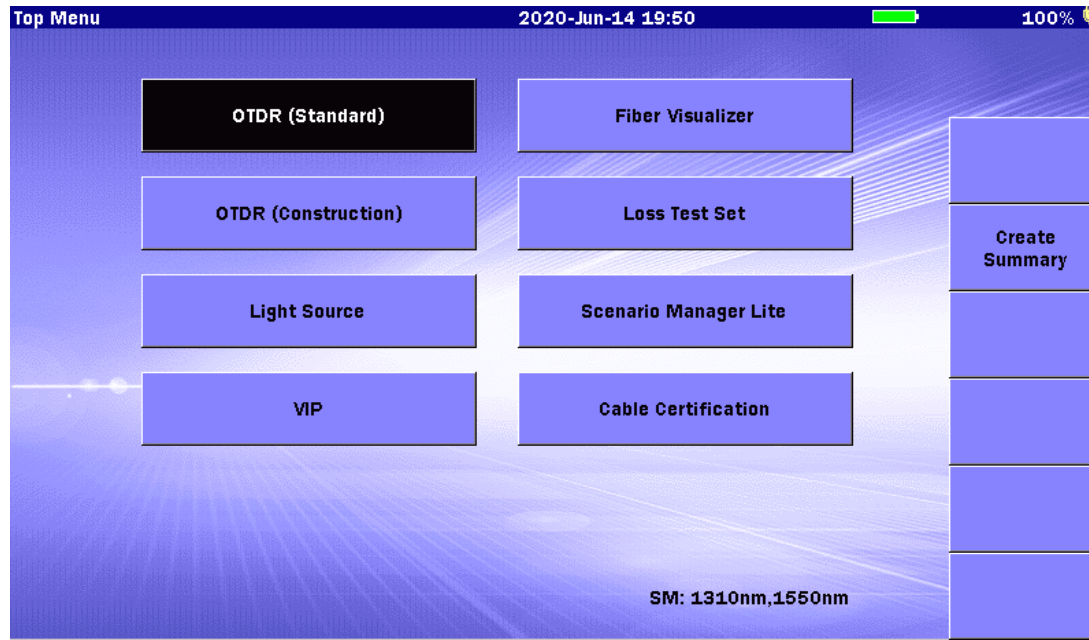
**OLTS, Optical Power Meter**

| Wavelength | Power (dBm) | Pass / Fail |
|------------|-------------|-------------|
| 1550       | 2.14        | Fail        |

- In many cases, onsite measurement requires Pass/Fail evaluation of the optical fiber path trace in accordance with installation work specifications
- The MT9085 series displays easy to understand Pass/Fail evaluation results for each of the OTDR Fiber Visualizer, OLTS, and VIP functions
- These evaluations are based on preset threshold values and international standards

# Strengthen of MT9085 Series: 5/5

- Top Menu Selection of Measurement Application



- The MT9085 series keeps the popular Top Menu selection method from previous ACCESS Master series
- Any required application can be chosen at any time by pressing a dedicated Top Menu hard key

# Measurement Applications (OTDR): 1/8

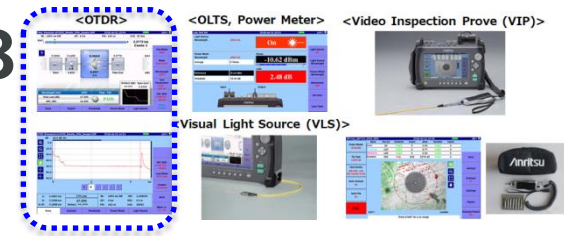
- Multiple wavelength Models for Every Measurement requirement

- Full range of models with multiple OTDR wavelengths matching customer applications

- Ranging from,

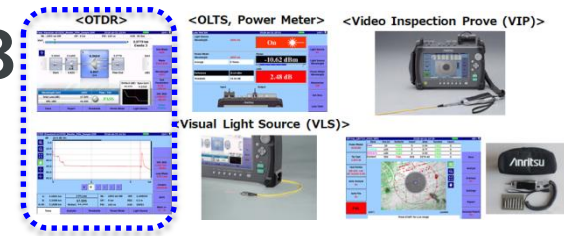
- Optical fiber operations and maintenance
- Live network measurements and evaluation
- Macro-bending analysis.

- Also many models for applications such as PON network evaluation

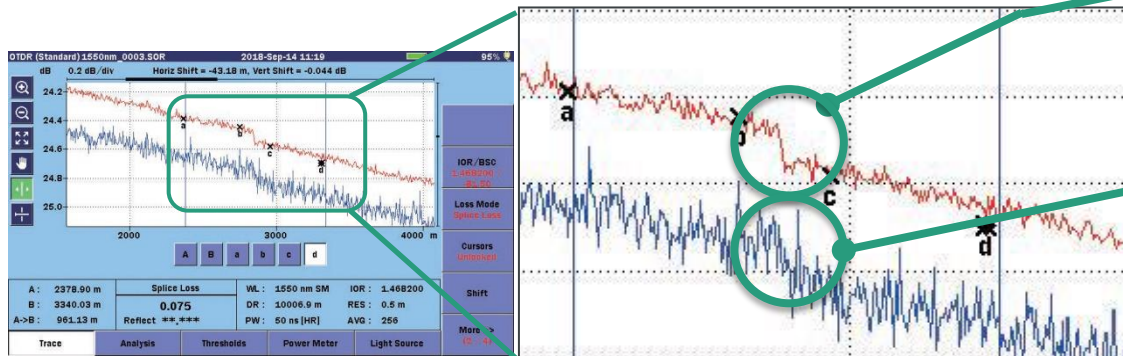


| Option      | Wavelength                        | Dynamic Range          | Features  |
|-------------|-----------------------------------|------------------------|---|
| MT9085C-053 | 1310/1550 nm SM                   | 46/46 dB               | General model for operations and maintenance                          |
| MT9085C-057 | 1310/1550/1625 nm SM              | 46/46/44 dB            | Model with maintenance wavelengths for macrobending analysis          |
| MT9085B-053 | 1310/1550 nm SM                   | 42/41 dB               | General model for operations and maintenance                          |
| MT9085B-055 | 1310/1550 nm, 1650nm SM           | 41/41/35 dB            | Model with built-in filters for in-service (live) circuit maintenance |
| MT9085B-056 | 1310/1490/1550 nm SM              | 42/41/41 dB            | Model for FTTx/PON I&M  |
| MT9085B-057 | 1310/1550/1625 nm SM              | 40/39/38 dB            | Model with maintenance wavelengths for macrobending analysis          |
| MT9085B-058 | 1310/1490/1550/1625 nm SM         | 42/41/41/40 dB         | Model for FTTx/PON I&M and partial evaluation of CWDM wavelength band |
| MT9085B-063 | 1310/1550 nm SM<br>850/1300 nm MM | 42/41dB,<br>29/28 dB   | Model for both SMF and MMF  |
| MT9085A-053 | 1310/1550 nm SM                   | 39/37.5 dB             | General model for operations and maintenance                          |
| MT9085A-057 | 1310/1550/1625 nm SM              | 37/35.5/32.5 dB        | Model with maintenance wavelengths for macrobending analysis          |
| MT9085A-063 | 1310/1550 nm SM<br>850/1300 nm MM | 39/37.5dB,<br>29/28 dB | Model for both SMF and MMF  |

# Measurement Applications (OTDR): 2/8



- High Waveform Quality and Analysis Accuracy
  - MT9085 maintains the powerful hardware functions of earlier ACCESS Master's, based on Anritsu's long history of technical excellence with updated higher trace quality and analysis accuracy
- Up to **46 dB Dynamic Range**
  - Loss measurement of optical fibers up to 200 km
    - \*Varies with wavelength and optical fiber loss conditions
- **0.8 m Event Dead Zone**
  - Identifies fiber connectors only separated by only a few meters
- High-Quality Realtime Measurements
  - Two realtime measurement modes; support macro bending location identification and easy loss measurement



Realtime Measurement, using High S/N Mode.

- Noise suppression assures easy loss measurement

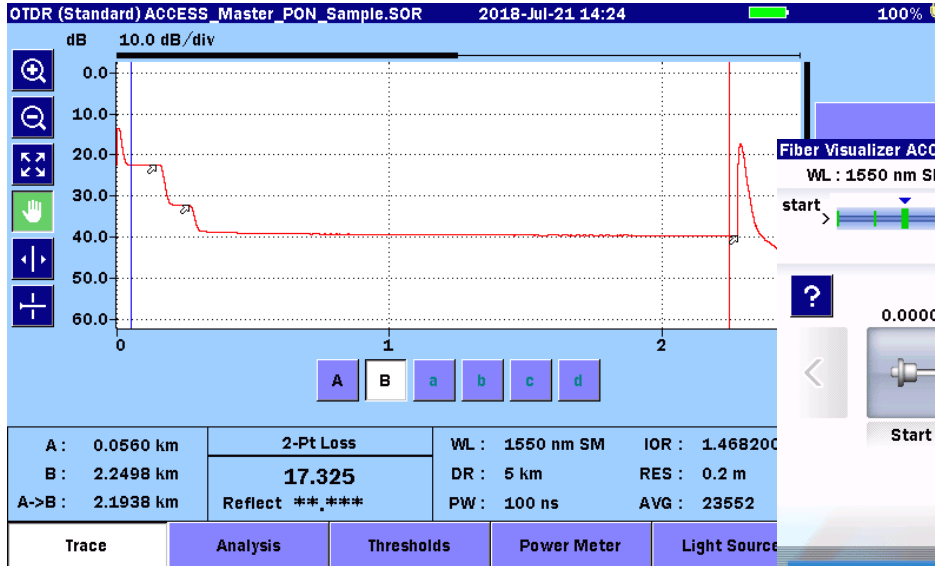
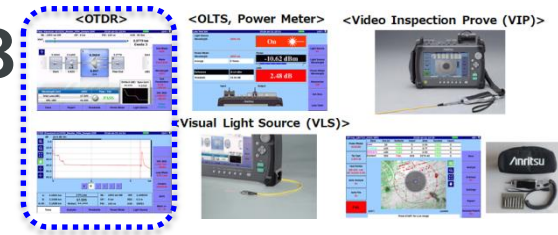
Realtime measurement, using High-Speed mode

- High speed sweep refresh rate, effective for locating fiber bending

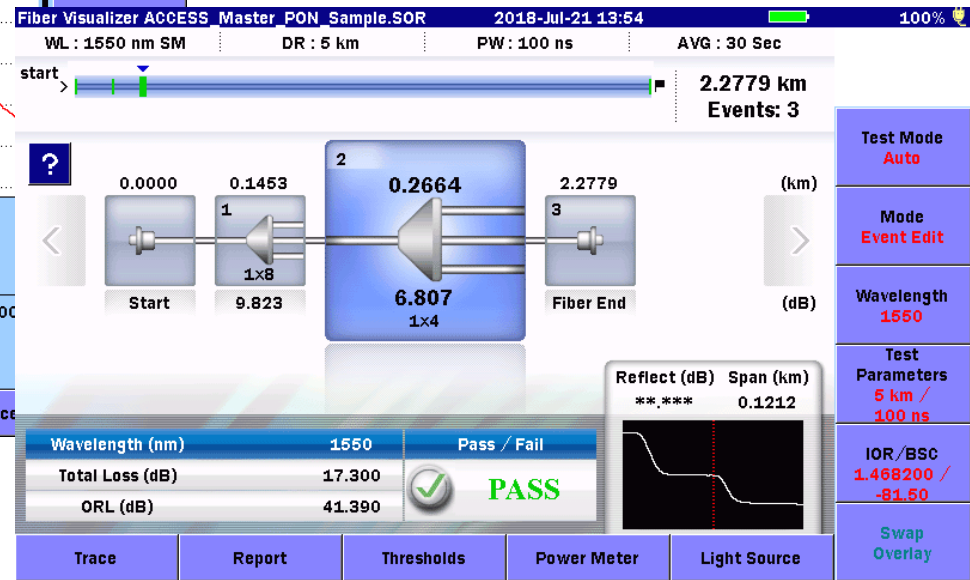


# Measurement Applications (OTDR): 3/8

- PON Splitter Analysis for up to 1 x 128 Branches



Loss Measurement and Analysis using OTDR (Standard) Test Menu

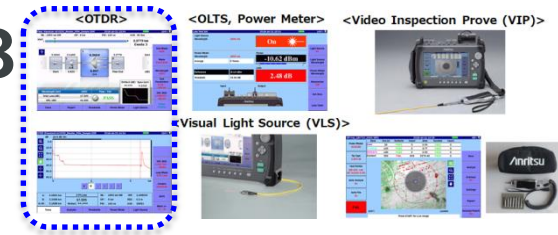


Loss Measurement and Analysis using OTDR (Fiber Visualizer) Menu

- \*Sample screens are downstream measurement of splitter circuit including 1\*8 and 1\*4 splitters
- \*Refer to following slides for OTDR (Standard) and OTDR (Fiber Visualizer) menus

# Measurement Applications (OTDR): 4/8

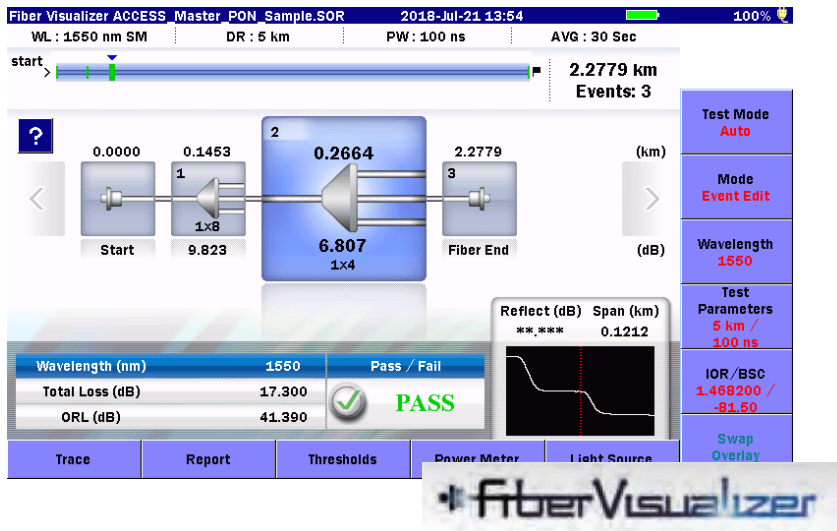
- Two Analysis Modes Matching Measurement Environment and Field Engineer Experience



Maintenance Fault Troubleshooting?  
First-Time Operator?

OTDR (Fiber Visualizer)

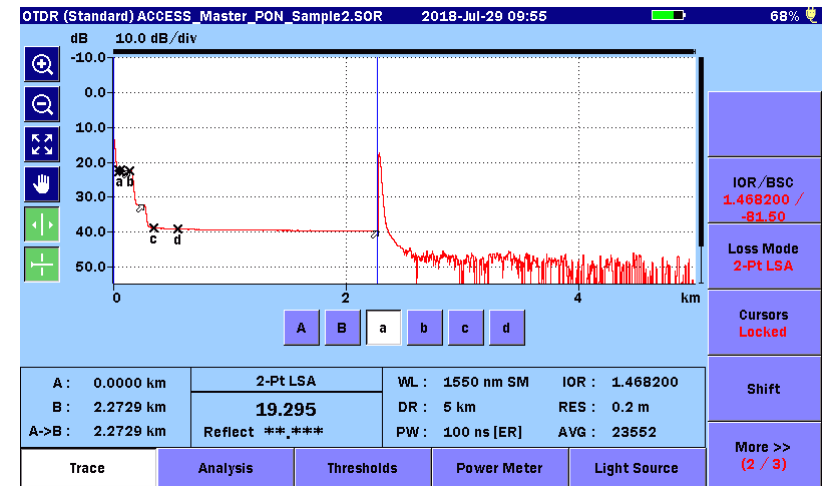
Automated measurement from setting measurement conditions to Pass/Fail evaluation



Fiber Installation?  
Experienced Operator?

OTDR (Standard) Test

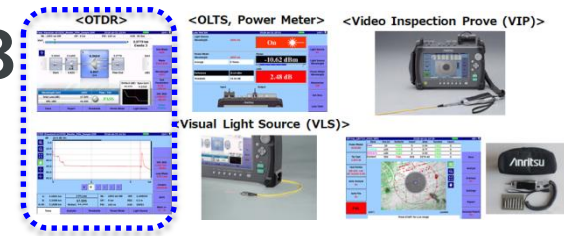
Manual measurement from setting measurement conditions to Pass/Fail evaluation



# Measurement Applications (OTDR): 5/8

- Fiber Visualizer for Easy Measurement and Analysis

## OTDR (Fiber Visualizer)



**Fiber Visualizer**

2018-Jul-21 13:54  
WL: 1550 nm SM DR: 5 km PW: 100 ns AVG: 30 Sec

2.2779 km Events: 3

| Wavelength (nm) | 1550   |
|-----------------|--------|
| Total Loss (dB) | 17.300 |
| ORL (dB)        | 41.390 |

Pass / Fail  
**PASS**

2018-Aug-14 17:50  
WL: 1550 nm SM DR: 5 km PW: 100 ns [ER] AVG: 30 Sec

2.2973 km Events: 3

| Wavelength (nm) | 1550   |
|-----------------|--------|
| Total Loss (dB) | 17.246 |
| ORL (dB)        | 41.390 |

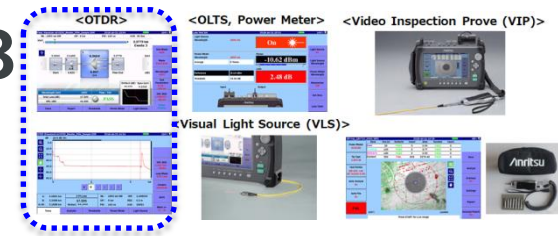
Pass / Fail  
**FAIL**

Pass / Fail indication

Switch screens with one-button operation

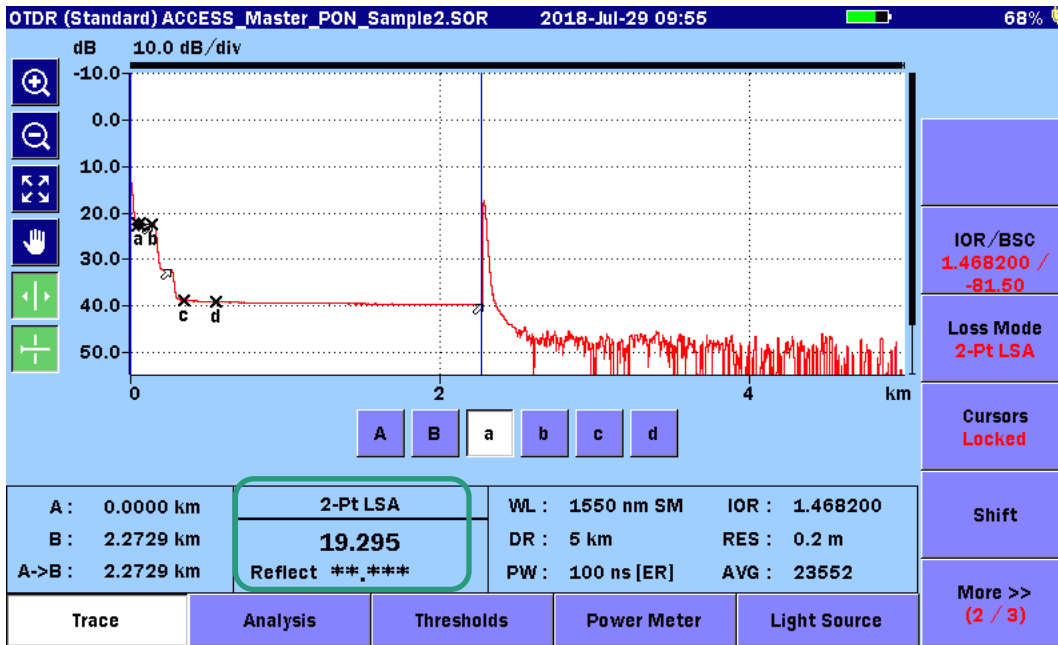
- Optical fiber splices, connectors, splitters, etc., are displayed as **easy-to-understand schematic icons** for each event
- Connection loss and reflectance measurements for each event are confirmed **easily at-a-glance from the Pass/Fail Evaluation** results
- Faults are highlighted in red and simple English explains possible course

# Measurement Applications (OTDR): 6/8



- Manual Measurement and Analysis Following Work Order Specification Measurement Procedures

## OTDR (Standard) Test

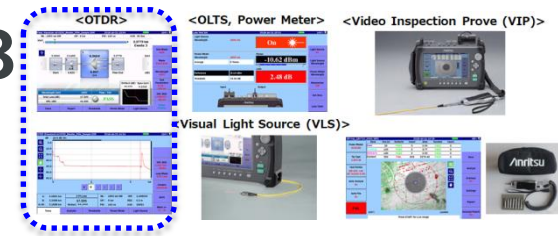


- Trace are evaluated using the 2PA and LSA methods based on the position of four markers to analyze the optical fiber connection loss and reflectance
- Touchscreen operation adds to the feature set from previous ACCESS master models, improving manual analysis and operability

– This method is used for manual analysis when the measurement and analysis conditions are specified in the work order specification requirements

# Measurement Applications (OTDR): 7/8

- Increased Multiple Fiber Measurement Enhancing Work Efficiency



## OTDR (Standard) Test

Input multiple fiber measurement data (wavelength, measured fiber count, etc.)

1

2

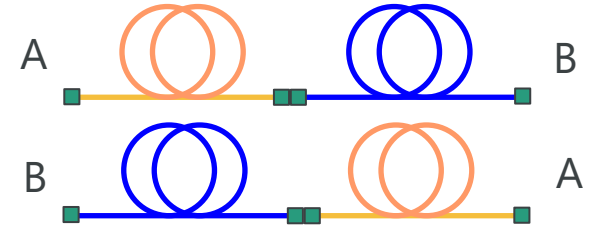
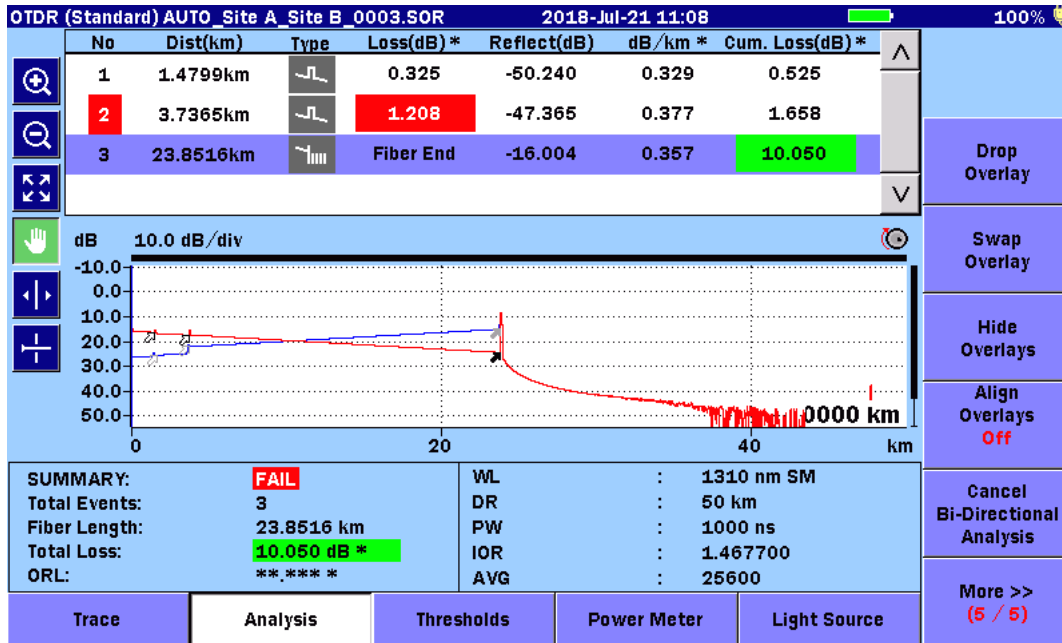
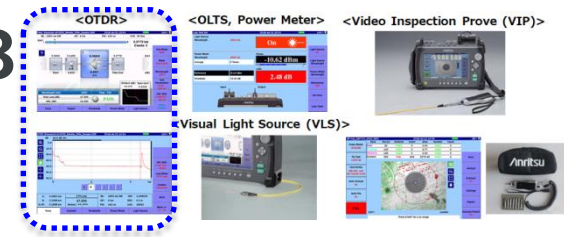
First fiber measurement

Second fiber measurement

- Multiple optical fibers can be measured continuously under the same setting conditions
- Automatic saving of the measured data as a .sor file each time
- Every fiber measurement completed improves work efficiency
- Auto naming remove user error and reduces testing time

# Measurement Applications (OTDR): 8/8

- Accurate Analysis using Bi-directional Measurement of Optical Fiber Connection Loss



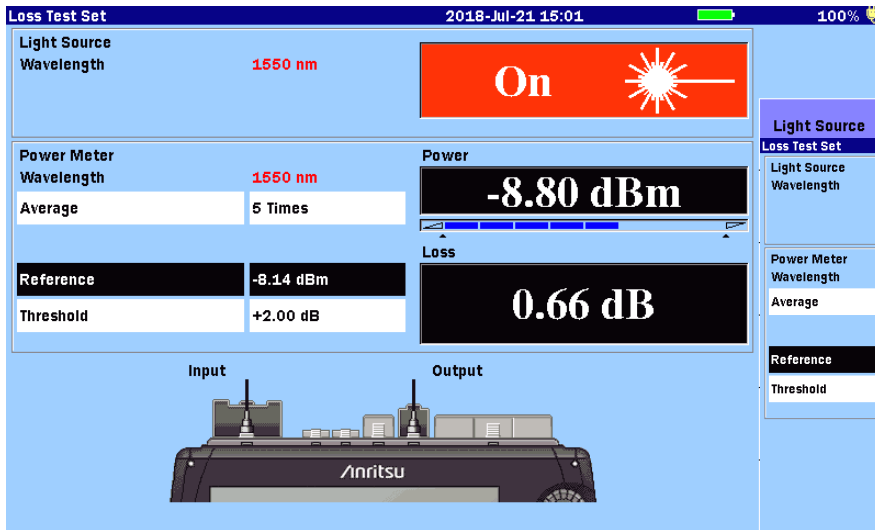
Analyzes by superimposing two traces measured respectively from point A and point B

- When connecting different fiber types it is sometimes impossible to measure connection loss accurately (especially if mixing old and new fiber types)
- Bi-directional trace measurement function supports accurate analysis of loss values by analyzing and combining the results from both directions of the event

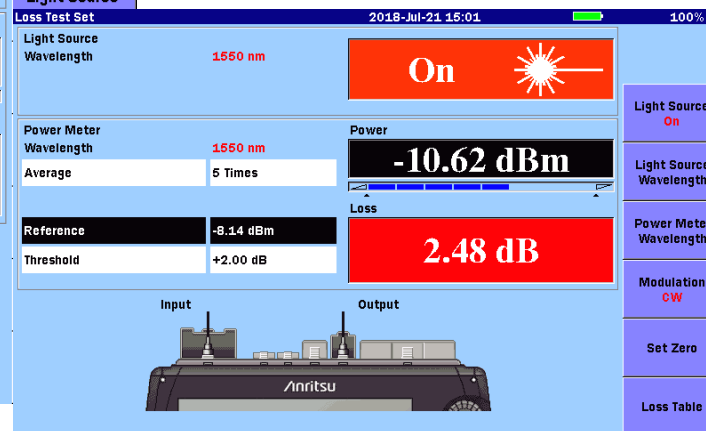
# Measurement Applications (OLTS, Optical Power Meter): 1/2



- Key Measurement Function for Evaluating Optical Fiber Installation Condition and Event Status



Displays red background when threshold value exceeded



- The OLTS/Optical Power meter function is used for primary fault evaluation before OTDR tests.
  - The Light Source and Optical Power meter functions are built-in as standard options
    - Optical Power meter option must be installed to use the OLTS function

# Measurement Applications (OLTS, Optical Power Meter): 2/2



Loss Test Set 2018-Jul-21 15:04 100%

Light Source  
Wavelength: 1550 nm  
Modulation: CW  
**On**

Power Meter  
Wavelength: 1550 nm  
Modulation: CW  
Reference: -8.14 dBm  
**Loss: 2.14 dB**

| No  | WL     | Loss   | Power     | Pass / Fail | Comment |
|-----|--------|--------|-----------|-------------|---------|
| 001 | 1550nm | 2.48dB | -10.62dBm | Fail        |         |
| 002 | 1550nm | 1.40dB | -9.54dBm  | Pass        |         |
| 003 | 1550nm | 1.40dB | -9.54dBm  | Pass        |         |
| 004 | 1550nm | 1.55dB | -9.69dBm  | Pass        |         |
| 005 | 1550nm | 0.37dB | -8.51dBm  | Pass        |         |
| 006 | 1550nm | 0.89dB | -9.03dBm  | Pass        |         |
| 007 | 1550nm | 2.10dB | -10.24dBm | Fail        |         |
| 008 | 1550nm | 2.14dB | -10.28dBm | Fail        |         |

Buttons: Add, Overwrite, Delete, Delete All, Comment, Back

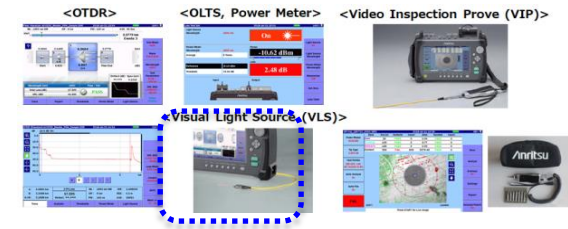
The Power Meter Loss Table screen is used to log measured results

Measured loss table logs can be output as .csv files.

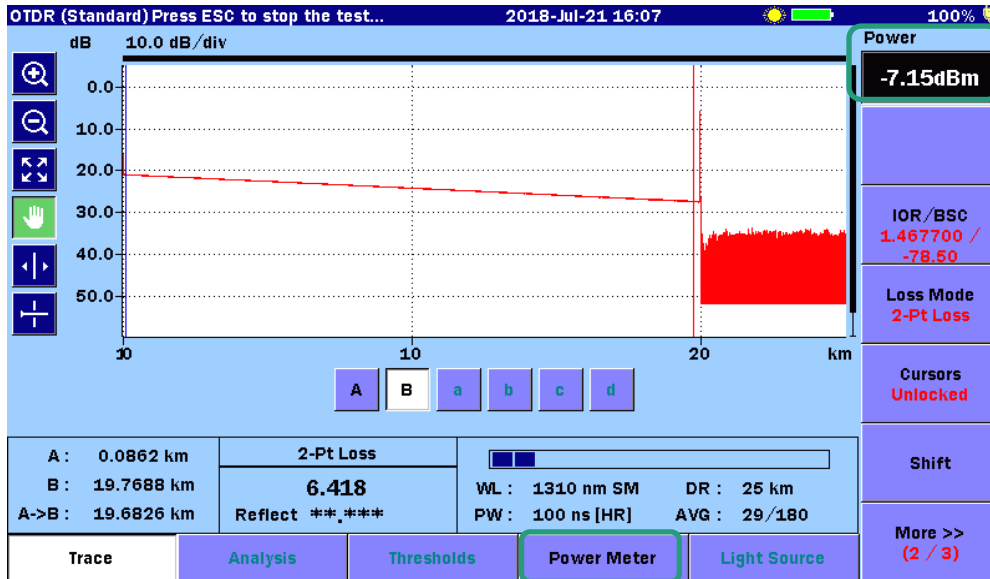
|    | A                               | B           | C              | D             | E         | F           | G            | H         | I         | J                   | K |
|----|---------------------------------|-------------|----------------|---------------|-----------|-------------|--------------|-----------|-----------|---------------------|---|
| 1  | <MT908x Series Loss Table Data> |             |                |               |           |             |              |           |           |                     |   |
| 2  | Anritsu                         | MT9085A-057 | 570000008      | 2018/7/21     | Line:8    | CRC:d6d2    |              |           |           |                     |   |
| 3  | <File Version> 1                |             |                |               |           |             |              |           |           |                     |   |
| 4  | <Title>                         |             |                |               |           |             |              |           |           |                     |   |
| 5  | <No>                            | <nm>        | <Reference(dB) | <Absolute(dB) | <Loss(dB) | <Pass/Fail> | <Modulation> | <Average> | <Comment> | <Threshold(dB/dBm)> |   |
| 6  | 1                               | 1550        | -8.14          | -10.62        | 2.48      | 1           | 0            | 5         |           | 2                   |   |
| 7  | 2                               | 1550        | -8.14          | -9.54         | 1.4       | 0           | 0            | 5         |           | 2                   |   |
| 8  | 3                               | 1550        | -8.14          | -9.54         | 1.4       | 0           | 0            | 5         |           | 2                   |   |
| 9  | 4                               | 1550        | -8.14          | -9.69         | 1.55      | 0           | 0            | 5         |           | 2                   |   |
| 10 | 5                               | 1550        | -8.14          | -8.51         | 0.37      | 0           | 0            | 5         |           | 2                   |   |
| 11 | 6                               | 1550        | -8.14          | -9.03         | 0.89      | 0           | 0            | 5         |           | 2                   |   |
| 12 | 7                               | 1550        | -8.14          | -10.24        | 2.1       | 1           | 0            | 5         |           | 2                   |   |
| 13 | 8                               | 1550        | -8.14          | -10.28        | 2.14      | 1           | 0            | 5         |           | 2                   |   |



# Measurement Applications (Visual Light Source)



- Improved Work Efficiency by using OTDR, Optical Power Meter and Visual Light Source Simultaneously



Optical Power Meter measurement results are displayed at the top right of the main OTDR measurement screen

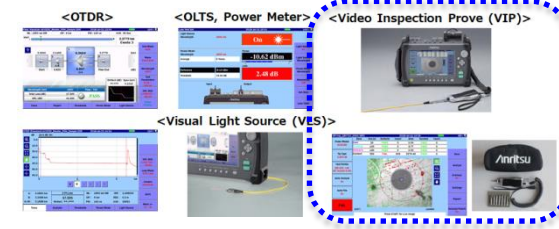


The visual light source is operated using a shortcut key.

- The Visual Light Source and Optical Power meter tests can be completed while performing OTDR measurements
  - For example, perform a multiple fiber measurement completing Power Meter and Visual Light Source measurements on other fibers while in parallel performing an OTDR measurements, improving work flow efficiency

# Measurement Applications (VIP)

- Checks for Scratches and contamination on Fiber End Face before Optical Power Meter and OTDR Measurements



Used with G0306B (sold separately)

VIP (vip\_180710\_0001.VIP) 2018-Jul-11 10:31 98%

| Zone     | Dia.(u) | Defects | Count | Area | Scratch | Count |
|----------|---------|---------|-------|------|---------|-------|
| Core     | 25      | PASS    | 0     | 0.00 | PASS    | 0     |
| Cladding | 115     | PASS    | 0     | 0.00 | PASS    | 0     |
| Adhesive | 135     | PASS    | 0     | 0.00 | PASS    | 0     |
| Contact  | 250     | PASS    | 0     | 0.00 | PASS    | 0     |

Probe Model: G0306B  
Tip Type: 2.5PC-M  
Test Profile: SM UPC >45, IEC 61300-3-35  
Auto Analyze: On  
Auto File: On

**PASS**

100% Loaded

Press START for Live image



VIP (vip\_180710\_0000.VIP) 2018-Jul-11 10:29 98%

| Zone     | Dia.(u) | Defects | Count | Area    | Scratch | Count |
|----------|---------|---------|-------|---------|---------|-------|
| Core     | 25      | PASS    | 0     | 0.00    | PASS    | 0     |
| Cladding | 120     | PASS    | 2     | 3.77    | PASS    | 0     |
| Adhesive | 130     | PASS    | 0     | 0.00    | PASS    | 0     |
| Contact  | 250     | FAIL    | 203   | 2276.45 | PASS    | 0     |

Probe Model: G0306B  
Tip Type: 2.5PC-M  
Test Profile: SM UPC >45, IEC 61300-3-35  
Auto Analyze: On  
Auto File: On

**FAIL**

100% Loaded

Press START for Live image

- Using MT9085 in combination with Fiberscope G0306B (VIP)
- Automatic Pass/Fail evaluation of the optical connector end-face status in accordance with IEC61300-3-35 standard

Example of Failed Evaluation Result

# Measurement Applications (Cable Certification): 1/2

## Automatic Pass/Fail Evaluation using Cable Certification Test Function

The screenshot displays the Cable Certification software interface. The top window shows project details for 'ANRITSU2020' on '2020-Jun-15 17:16'. The bottom window shows test results for '2020-Jun-15 18:08'.

**Test Parameters (Left Panel):**

- Project: ANRITSU2020
- Operator: ANRITSU
- Tests performed: 0/40
- OTDR:
  - Applicable Standards: ISO/IEC 11801-3:2017
  - Fiber Category: OS2
  - Cable ID: (blank)
  - Location A: ANRITSU
  - Location B: ATSUGI
  - Wavelength: 1310 / 1550 nm
- VIP:
  - Applicable Standards: IEC 61300-3-35 ed2.0
  - Test Profile: SM UPC >45
  - Probe Model: G0306B

**Test Results (Right Panel):**

| Test/Result | Project     | Operator | Untested | Pass | Fail |
|-------------|-------------|----------|----------|------|------|
|             | ANRITSU2020 | ANRITSU  | 0        | 34   | 6    |

| Cable ID | OTDR   VIP (A/B) | Result |
|----------|------------------|--------|
| _1       | ✓/✓   ✓/✓        | Pass   |
| _2       | ✗/✓   ✗/✓        | Fail   |
| _3       | ✓/✓   ✓/✓        | Pass   |
| _4       | ✓/✓   ✓/✓        | Pass   |
| _5       | ✓/✗   ✓/✗        | Fail   |
| _6       | ✗/✓   ✗/✓        | Fail   |
| _7       | ✓/✓   ✓/✓        | Pass   |
| _8       | ✓/✓   ✓/✓        | Pass   |
| _9       | ✓/✓   ✓/✓        | Pass   |
| _10      | ✓/✓   ✓/✓        | Pass   |

Navigation buttons on the right: Start Test, Show Result, Report, Back.

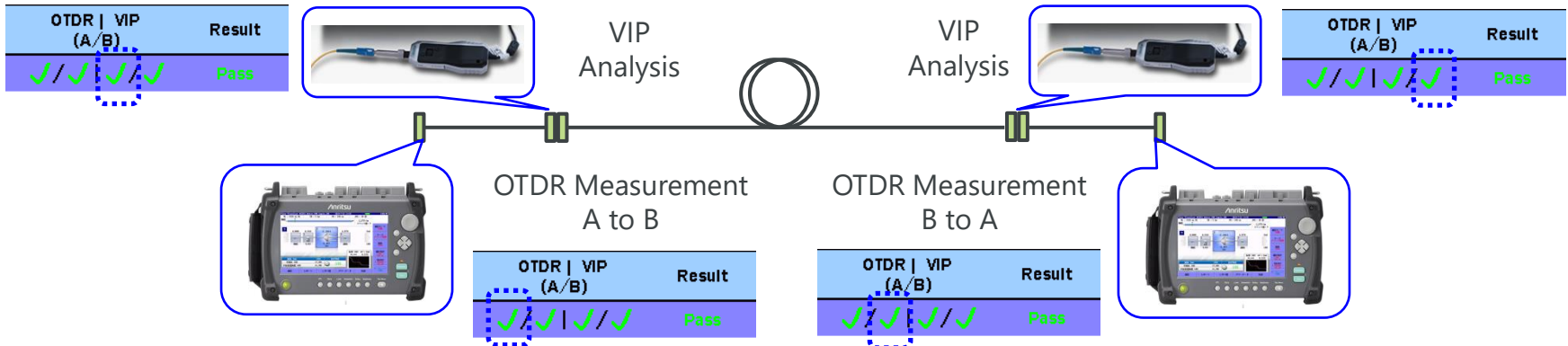
The automatic Pass/Fail measurements of the Cable Certification Test function meet the IEC/ISO standards. Users create an all-in-one measurement project including the relevant standards, measured-fiber type, OTDR test items, VIP measurement conditions, etc., with the measurement test results managed as multiple fibers for report output as a pdf.

# Measurement Applications (Cable Certification): 2/2

## Measurement and Analysis per Fiber

### Location A

### Location B



Automatic Pass/Fail evaluation in compliance with IEC/ISO and JIS standards

| OTDR   VIP (A/B) | Result |
|------------------|--------|
| ✓/✓ ✓/✓          | Pass   |
| ✗/✓ ✗/✓          | Fail   |
| ✓/✓ ✓/✓          | Pass   |
| ✓/✓ ✓/✓          | Pass   |
| ✓/✗ ✓/✗          | Fail   |
| ✗/✓ ✗/✓          | Fail   |
| ✓/✓ ✓/✓          | Pass   |
| ✓/✓ ✓/✓          | Pass   |
| ✓/✓ ✓/✓          | Pass   |
| ✓/✓ ✓/✓          | Pass   |

| Anritsu                |             |
|------------------------|-------------|
| <b>Project Summary</b> |             |
| Applicable Standards   | ISO/IEC     |
| Fiber Category         |             |
| Number of Fibers       |             |
| Passes                 |             |
| Fails                  |             |
| <b>Test Results</b>    |             |
| Cable ID               | Pass / Fail |
| -1                     | PASS        |
| -2                     | FAIL        |
| -3                     | PASS        |
| -4                     | PASS        |
| -5                     | FAIL        |
| -6                     | FAIL        |
| -7                     | PASS        |
| -8                     | PASS        |
| -9                     | PASS        |
| -10                    | PASS        |



## Overall Evaluation

| OTDR   VIP (A/B) | Result |
|------------------|--------|
| ✓/✓ ✓/✓          | Pass   |

Report Output:  
In addition to the overall evaluation, the report indicates the OTDR and VIP measurement results for each fiber.

Displayed results for 10 measured fibers

# Measurement Applications (Scenario Manager Lite)

- Automatic Testing using Scenario Manager and Lite Function

| Command                | Response             | Result | Filename         |
|------------------------|----------------------|--------|------------------|
| *CLS                   | 0, "No Error"        | PASS   |                  |
| *ESE 1                 | 0, "No Error"        | PASS   |                  |
| SOURce:WAVelength 1310 | 0, "No Error"        | PASS   |                  |
| INITiate               | 0, "No Error"        | PASS   |                  |
| *OPC                   | 0, "No Error"        | PASS   |                  |
| *ESR?                  | 1                    | PASS   |                  |
| SENS:TRAC:READY?       | 1                    | PASS   |                  |
| TRAC:LOAD:SOR?         |                      | PASS   | INIT_OPC1310.sor |
| INSTRument:NSElect 1   | 0, "No Error"        | PASS   |                  |
| INSTRument:STATe 1     | 0, "No Error"        | PASS   |                  |
| *ESE?                  | 1                    | PASS   |                  |
| *ESR?                  | 0                    | PASS   |                  |
| *IDN?                  | ANRITSU, MT9085B-06~ | PASS   |                  |
| *OPC?                  | 1                    | PASS   |                  |
| *SRE?                  | 0                    | PASS   |                  |
| *STB?                  | 0                    | PASS   |                  |
| *TST?                  | 0                    | PASS   |                  |
| INSTRument:NSElect 2   |                      |        |                  |
| INSTRument:STATe 1     |                      |        |                  |
| SUNITSM                |                      |        |                  |
| SOURce:WAVelength 1550 |                      |        |                  |

- Application executes predefined programs on the tester
- Test procedures and parameters can be registered in scenarios on the MT9085 using remote commands to fully automate testing without requiring a PC for remote control

# Measured Data Management: 1/3

- PDF Reports of OTDR and VIP Results

**Screenshot**





\*The Screen Capture function is useful for saving measured data easily using a shortcut key.

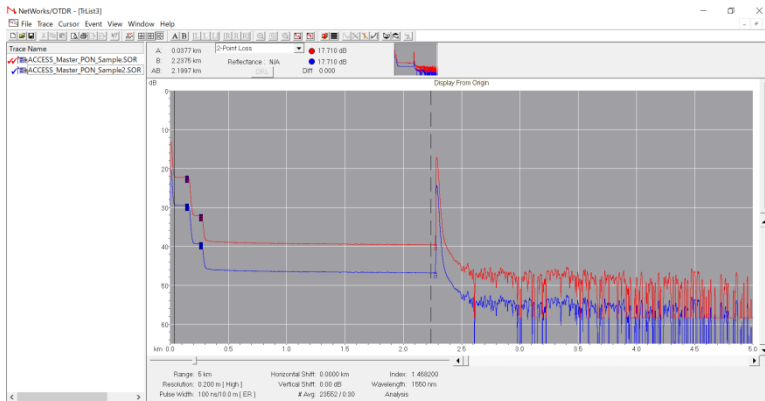
- OTDR (Fiber Visualizer) measurement results output as PDF reports
- Can be combined with VIP analysis results into a single comprehensive test report

# Measured Data Management: 2/3

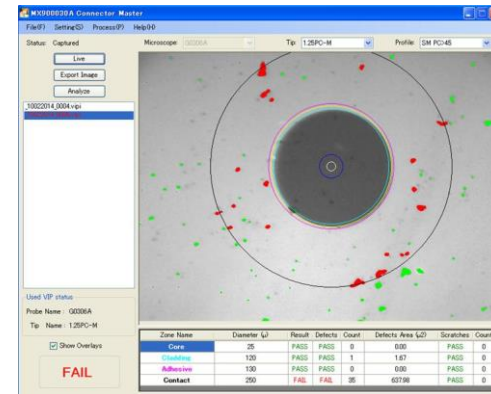
- Measured Original Data Analyzed by Connected PC

## Methods for Saving MT9085 Measured Data

|             | <br>Original Data File | <br>Screen Capture | <br>.csv File | <br>PDF Report Output |
|-------------|---|---|--|--|
| <b>OTDR</b> | ✓   | ✓   |  | ✓  |
| <b>OLTS</b> |   | ✓   | ✓  |  |
| <b>VIP</b>  | ✓   | ✓   |  | ✓  |



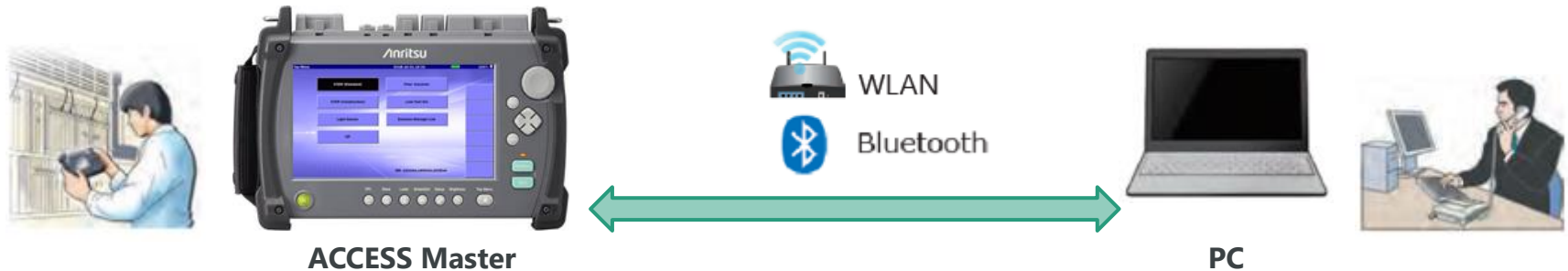
NETWORKS: OTDR Trace Analysis using Emulation Software (chargeable)



VIP Analysis Screen using Connector Master MX900030A on PC (free-of-charge)

# Measured Data Management: 3/3

- Share Measured Saved Data and Report Files with PC via WLAN / Bluetooth Wireless Network

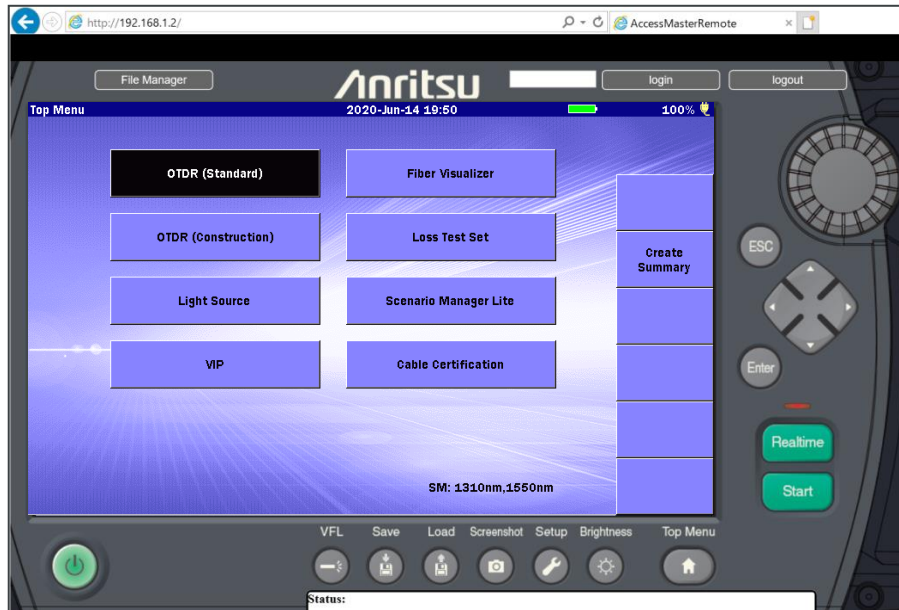


- Simple transfer of files and reports from MT9085 series to a PC using WLAN and Bluetooth\*
  - \*Requires external USB dongle adapter
- Share files using USB memory or USB cable

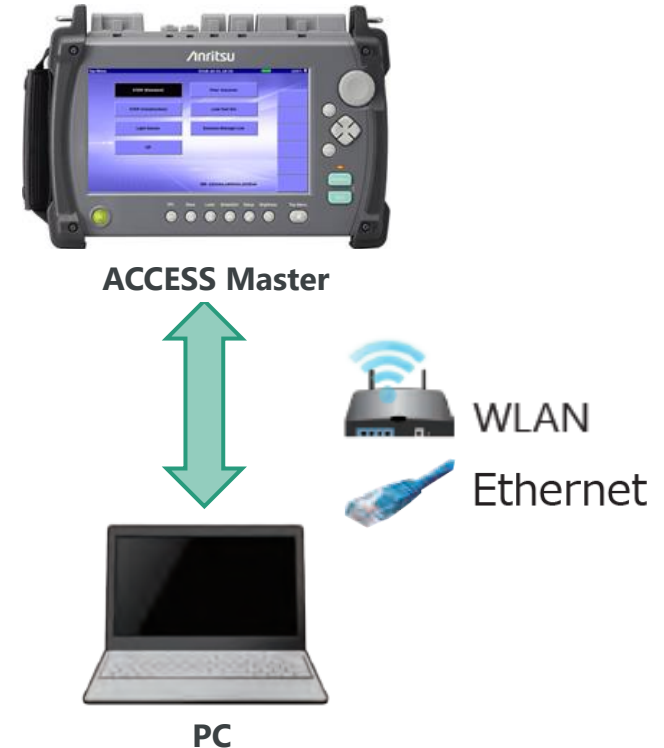


# External Measurement Control

- Remote Control of MT9085 from PC using Remote GUI and Remote Commands



PC External Control Screen using Remote GUI



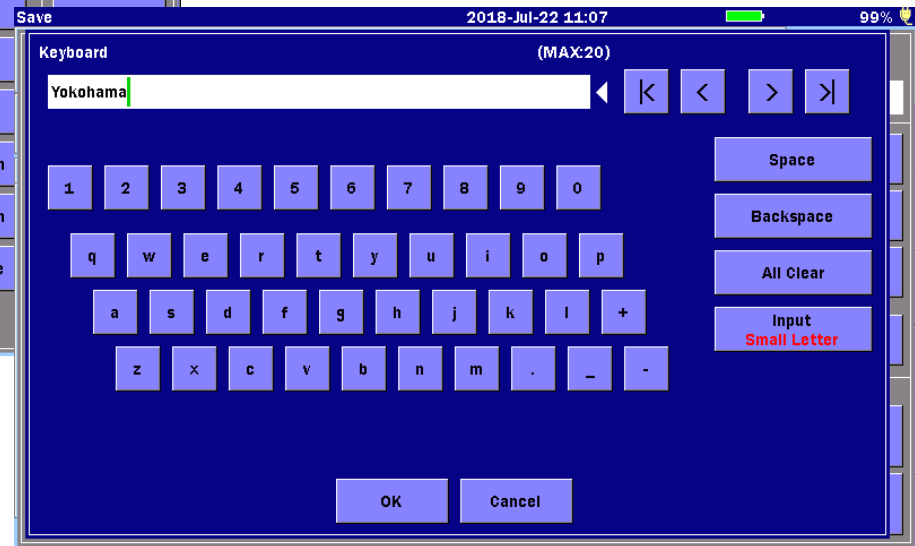
- MT9085 series can be remote-controlled via WLAN and Ethernet interfaces using both a remote GUI (web browser) and remote commands
  - \*WLAN communications requires USB dongle adapter
  - \*Ethernet connection requires USB–Ethernet conversion cable

# Other Useful Functions: 1/2

- Better Work Efficiency with File Name Input Support Function



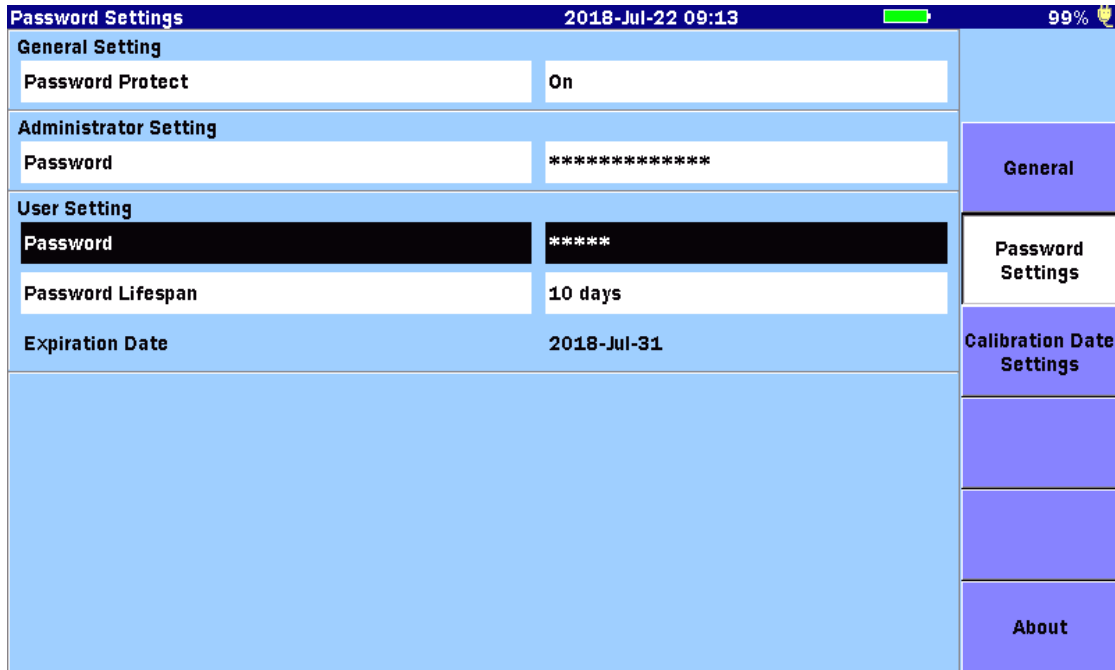
Adding touchscreen operation to the previous ACCESS Master design improves operability for manual analysis



- Many data files are required to be saved when the OTDR is configured to measure multiple fibers.
- The MT9085 series has a built-in function to simplify filename input
  - Automatically incrementing the file name based on the measurement setting conditions (wavelength, pulse width) and fiber number

# Other Useful Functions: 2/2

- Password Protection Function protects Important Internal Data



- MT9085 series has a built-in password protection, requiring password input after booting the tester
- Not only protects important internal data but also limits use to approved users

# Main Specification: 1/2

|                        |   |   |
|------------------------|---|---|
| Dimensions and Mass    | Without Protector   | Dimensions: 270 (W) × 165 (H) × 61 (D) mm               |
|                        |   | Mass: 1.6kg without battery, 1.9 kg Including battery   |
|                        | With Protector (Option 010)   | Dimensions: 284 (W) × 200 (H) × 77 (D) mm               |
|                        |   | Mass: 2.6 kg including battery                          |
| Display                | 8-inch touch screen TFT-Color LCD   |   |
| Interface              | USB 2.0: Type A × 3 (memory), USB1.1: MicroB × 1 (USB mass storage)*<br>500 mA USB power supply   |   |
| Wireless Interface     | WLAN/Bluetooth via USB adapter connected to USB port  |   |
| Data Storage           | Internal memory:  | 1 GB (up to 50,000 traces),                             |
|                        | External memory (USB):  | up to 32 GB   |
| Power Supply           | 12 V(dc),<br>100 V(ac) to 240 V(ac), Allowable input voltage range: 90 V to 264 V, 50 Hz/60 Hz    |   |
| Battery                | Type:   | Lithium ion   |
|                        | Operating Time:   | 12 hours, Telcordia GR-196-CORE Issue 2, September 2010 |
|                        | Recharge Time:  | <5 hours (power off)                                    |
| Power Saving Functions | Backlight off:  | Disable/1 to 99 minutes                                 |
|                        | Auto shutdown:  | Disable/1 to 99 minutes                                 |
| Vertical Scale         | 0.1, 0.2, 0.5, 1.0, 2.0, 5.0, 10.0 dB/div   |   |
| IOR Setting            | 1.300000 to 1.700000 (0.000001 steps)   |   |
| Units                  | km, m, kft, ft, mi  |   |
| Sampling Points        | Up to 150,001   |   |
| Sampling Resolution    | 0.05 m to 60 m  |   |
| Reflectance Accuracy   | Single mode: ±2 dB, multimode: ±4 dB  |   |
| Distance Accuracy      | ±1 m ±3 × measurement distance × 10 <sup>-5</sup> ± marker resolution (excluding IOR uncertainty) |   |
| Distance Range         | Single mode: 0.5, 1, 2.5, 5, 10, 25, 50, 100, 200, 300 km   |   |
|                        | Multimode: 0.5, 1, 2.5, 5, 10, 25, 50, 100 km   |   |

\*Refer to the separate catalog for details.

# Main Specification: 2/2

| MT9085C     |  |                        |                                    |  |
|-------------|--|------------------------|------------------------------------|--|
| Opt.        | Wavelength                                 | Dynamic Range          | Dead Zone (Fresnel) (IOR=1.500000) | Dead Zone (Backscatter) (IOR=1.500000) |
| MT9085C-053 | 1310/1550nm ±25nm                          | 46/46dB                | ≤1 m,<br>0.8 m (typ.)              | ≤3.8/4.3 m                             |
| MT9085C-057 | 1310/1550/1625nm ±25nm                     | 46/46/44dB             |                                    | ≤3.8/4.3/4.8 m                         |
| MT9085B     |  |                        |                                    |  |
| Opt.        | Wavelength                                 | Dynamic Range          | Dead Zone (Fresnel) (IOR=1.500000) | Dead Zone (backscatter) (IOR=1.500000) |
| MT9085B-053 | 1310/1550 nm ±25 nm                        | 42/41 dB               | ≤1 m<br>0.8 m (typ.)               | ≤5/5.5 m                               |
| MT9085B-055 | 1310/1550 nm ±25 nm,<br>1645 to 1655 nm    | 42/41/35 dB            |                                    | ≤5/5.5/6.5 m                           |
| MT9085B-056 | 1310/1490/1550 nm ±25 nm                   | 42/41/41 dB            |                                    | ≤6/6.5/6.5 m                           |
| MT9085B-057 | 1310/1550/1625 nm ±25 nm                   | 40/39/38 dB            |                                    | ≤6/6.5/7.5 m                           |
| MT9085B-058 | 1310/1490/1550/1625 nm ±25 nm              | 42/41/41/40 dB         |                                    | ≤7/7.5/7.5/8.5 m                       |
| MT9085B-063 | 1310/1550 nm ±25 nm,<br>850/1300 nm ±30 nm | 42/41 dB<br>29/28 dB   |                                    | ≤5/5.5 m,<br>≤4/5 m (3/4 m typ.)       |
| MT9085A     |  |                        |                                    |  |
| Opt.        | Wavelength                                 | Dynamic Range          | Dead Zone (Fresnel) (IOR=1.500000) | Dead Zone (backscatter) (IOR=1.500000) |
| MT9085A-053 | 1310/1550 nm ±25 nm                        | 39/37.5 dB             | ≤1 m<br>0.8 m (typ.)               | ≤5/5.5 m                               |
| MT9085A-057 | 1310/1550/1625 nm ±25 nm                   | 37/35.5/32.5 dB        |                                    | ≤6/6.5/7.5 m                           |
| MT9085A-063 | 1310/1550 nm ±25 nm,<br>850/1300 nm ±30 nm | 39/37.5 dB<br>29/28 dB |                                    | ≤5/5.5 m,<br>≤4/5 m (3/4 m typ.)       |

\*Refer to the separate catalog for details.

# Ordering information: 1/2

1) Specify one required main unit.

| Model/Order No. | Name                               |
|-----------------|------------------------------------|
|                 | <b>– Main Unit –</b>               |
| MT9085A/B/C     | ACCESS Master                      |
|                 | <b>– Standard Accessories –</b>    |
| Z1991A          | MT9085 Operation Manual (CD) : 1pc |
| W3974AE         | MT9085 Series Quick Guide : 1pc    |
| Z1625A          | AC adapter : 1pc                   |
|                 | Line cord : 1pc                    |
| Z0921A          | Battery Pack : 1pc                 |

2) Specify at least one module option (wavelength).

| Model/Order No. | Name  |
|-----------------|---|
|                 | <b>– Module Option (OTDR) –</b>                   |
|                 | <b>High Performance Model</b>                     |
| MT9085C-053     | SMF 1.31/1.55 $\mu$ m OTDR                        |
| MT9085C-057     | SMF 1.31/1.55/1.625 $\mu$ m OTDR                  |
|                 | <b>Enhanced Model</b>                             |
| MT9085B-053     | SMF 1.31/1.55 $\mu$ m OTDR                        |
| MT9085B-055     | SMF 1.31/1.55/1.65 $\mu$ m OTDR                   |
| MT9085B-056     | SMF 1.31/1.49/1.55 $\mu$ m OTDR                   |
| MT9085B-057     | SMF 1.31/1.55/1.625 $\mu$ m OTDR                  |
| MT9085B-058     | SMF 1.31/1.49/1.55/1.625 $\mu$ m OTDR             |
| MT9085B-063     | MMF 0.85/1.3 $\mu$ m & SMF 1.31/1.55 $\mu$ m OTDR |
|                 | <b>Standard Model</b>                             |
| MT9085A-053     | SMF 1.31/1.55 $\mu$ m OTDR                        |
| MT9085A-057     | SMF 1.31/1.55/1.625 $\mu$ m OTDR                  |
| MT9085A-063     | MMF 0.85/1.3 $\mu$ m & SMF 1.31/1.55 $\mu$ m OTDR |

\*Refer to the separate catalog for details.

# Ordering information: 2/2

3) Specify at least one optical connector.

| Model/Order No. | Name                             |
|-----------------|----------------------------------|
|                 | <b>– Option (Connector) –</b>    |
| MT9085A/B/C-025 | FC-APC Connector Key width 2.0mm |
| MT9085A/B/C-026 | SC-APC Connector                 |
| MT9085A/B/C-037 | FC Connector                     |
| MT9085A/B/C-038 | ST Connector                     |
| MT9085A/B/C-039 | DIN47256 Connector               |
| MT9085A/B/C-040 | SC Connector                     |

4) Choose from the following options.

| Model/Order No. | Name                                    |
|-----------------|---|
|                 | <b>– Option (Visual light Source) –</b> |
| MT9085A/B/C-002 | Visual Fault Locator                    |
|                 | <b>– Option (Power Meter) –</b>         |
| MT9085A/B/C-004 | SMF Optical Power Meter                 |
| MT9085A/B/C-005 | SMF High Power Optical Power Meter      |
| MT9085A/B/C-007 | SMF/MMF Optical Power Meter             |
|                 | <b>– Option (Others) –</b>              |
| MT9085A/B/C-010 | Protector                               |

\*Refer to the separate catalog for details.



**With Protector (Option 010)**



**Without Protector**

