

# OFT-840 Loss Test Set with RL

## Description:

The OFT-840 series optical Loss Test Set with optical Return Loss (RL) combines optical Light Source, Power Meter and Return Loss testing in the same box. The optical Light Source fulfills all the necessary technical requirements for field equipment. Available in two working wavelengths: 1310 or 1550 nm. The optical Power Meter is designed to measure absolute or relative optical power in optical networks. The optical RL function provides extended measurement range with improved linearity.

The memory capacity allows storage and uploading of up to 3000 measurements including memory position or fiber number, wavelength, absolute value or relative value and insertion loss. The SmartProtocol PC evaluation software supports memory download, test report generation and Data Exporter for data download to Excel sheet.



## Features:

- Optical Light source, Power meter and Return loss tester
- High capacity two level memory
- SmartProtocol PC software: memory download, reporting solution
- Data Exporter PC software: data download to Excel sheet
- Detection of modulation 270 Hz, 1 kHz, 2 kHz
- AWD (Auto Wavelength Detection) function
- USB port - battery charging, data download, FW upgrade
- USB probe mode - full control via simple commands
- Absolute and Relative optical power measurement
- Displayed units: dBm, dB, W
- Powered by built-in Li-Pol rechargeable battery
- Battery status indicator, auto Off function

## Standard accessories:

- SmartProtocol PC software, USB connection cable
- PM: Universal 2.5 mm adapter
- LS+RL output interface: adapter FC/APC<sup>1</sup>
- Master patchcords: FC/APC – FC/APC (master at both ends)
- Master measuring adapters: FC/APC
- Power charging AC/DC adaptor
- Traceable calibration certificate
- Hard carrying case

## Options:

- Power meter: universal SFF 1.25 mm, LC, SC FC, ST, ... adapters
- Light source/Return loss – optional adapter SC
- Master patchcords: FC/APC – LC/APC, FC/APC – LC/PC
- FC/APC – SC/APC, FC/APC – SC/PC
- Master measuring adapters: LC/APC, LC/PC, SC/APC, SC/PC

Note: 1) FC/APC – NPC205 standard

## Power meter interface:



Other types available on request:

|            |             |
|------------|-------------|
| TE-ADP-ST  | ST adapter  |
| TE-ADP-DIN | DIN adapter |
| TE-ADP-SMA | SMA adapter |
| TE-ADP-MU  | MU adapter  |

## Light source – Return loss meter interface:



Standard configuration of IN/OUT ports:

|    |               |                  |
|----|---------------|------------------|
| LS | TE-ALS-FC/APC | FC adaptor       |
| PM | TE-ADP-250    | universal 2.5 mm |

| General specifications    |                  | Note:                         |
|---------------------------|------------------|-------------------------------|
| Dimensions                | 165 x 80 x 50 mm | with 2.5 mm universal adapter |
| Weight                    | 400 g            | with battery                  |
| Temperature operating     | -10 to +50 °C    |                               |
| storage                   | -40 to +70 °C    |                               |
| Humidity (non condensing) | 0 to 95%         |                               |
| Operating temperature     | -10 to +50 °C    |                               |
| Battery working time      | > 50 hrs         | between battery charging      |
| Battery life time         | > 2 years        | 3000 mA/h Li-Pol              |

Compliant with RoHS-requirements (2002/95/EG, 27.01.2003)

| Light Source                 |                                         |                                 |
|------------------------------|-----------------------------------------|---------------------------------|
| Output power                 |                                         |                                 |
| 1310, 1550 nm                | -2 dBm                                  | typ. value                      |
| Stability (1 hour, delta/2): |                                         | tested after 20 min warm up     |
| 1310, 1550 nm                | ± 0.05 dB                               | temperature 23 ± 1°             |
| Power Meter                  |                                         |                                 |
| Photodetector                | 1 mm InGaAs                             |                                 |
| Working wavelengths          | 850, 1300, 1310, 1490, 1550, 1625 nm    | can be customized               |
| Dynamic range: Standard      | -65 dBm to +10 dBm                      | 1300, 1310, 1490, 1550, 1625 nm |
|                              | -57 dBm to +10 dBm                      | 850 nm                          |
| Uncertainty                  | ± 5%                                    | 1310, 1550 nm @ -20 dBm         |
| Resolution                   | 0.01                                    |                                 |
| AWD/Modulation Detection     | -50 dBm                                 | 1300 – 1625 nm                  |
| Return Loss Meter            |                                         |                                 |
| Range                        | 0 - 65 dB                               |                                 |
| Accuracy                     | 0 - 50 dB: 0.5 dB      50 - 65 dB: 1 dB |                                 |

## Ordering Code:

| OFT-840                                  |  | -                                          | XX | -                         | XX | - | Light source |
|------------------------------------------|--|--------------------------------------------|----|---------------------------|----|---|--------------|
| Ferrule style<br>A2 <sup>1</sup> 2.5/APC |  | Adapter<br>Combined with<br>FC A2<br>SC A2 |    | Light source<br>as below: |    |   |              |

| Light source code <sup>2</sup> | description | port | application      |
|--------------------------------|-------------|------|------------------|
| 31                             | 1310 nm     | 1    |                  |
| 55                             | 1550 nm     | 1    | SM fiber testing |

Note 1) A2: Light source port is equipped with 2.5 mm APC ferrule, the adapter is removable  
2) Other wavelengths on demand

## Ordering example:

OFT-840-A2-FC-31

light source: SM laser 1310, FC/APC connector - adapter  
power meter: InGaAs, universal adapter 2.5 mm