



**Corning**

**OTS-300 Express Series  
Power Meters/Sources and Testers**



VMC elteknik a/s • Rugmarken 27 A • Postboks 123 • 3520 Farum

## > OTS-300 EXPRESS SERIES POWER METERS / SOURCES AND TESTERS

### Description

#### APPLICATION

The **OTS-300 Express Series** includes intelligent, versatile **optical meters, sources, and testers** that simultaneously test and store dual wavelength attenuation measurements. The synchronized meter and source alternates between wavelengths to continually update the displayed data. This process cuts testing time in half and prevents costly errors from mismatched source and meter wavelengths. At the press of a button, dual wavelength results are stored and the next fiber measured. These test sets are used during installation, system qualification, and maintenance. The combination of practical features, simple operation, field performance, and rugged design make them perfect for virtually all fiber optic testing environments from multimode LAN to single-mode telephony and CATV.

The data storage system eliminates field paperwork by storing up to 900 dual wavelength fiber measurements. The stored data can be viewed and edited while in the field and later transferred to **LinkLoss** Windows-based PC software. **LinkLoss** stores, prints, and creates bidirectional charts. The flexibility of the PC software allows **OTS-300** data to be processed in other spreadsheet applications.

Designed for the user, the **OTS-300 Series** provides quick, intuitive operation through a simple keypad and backlit graphic display with adjustable, temperature-compensated contrast. The power meters feature selectable resolution that optimizes use for both field (0.1 dB) and production or lab environments (0.01 dB). Detection of 2 kHz pulsed "tone" via both audible and visual indication allows versatile continuity testing and fiber tracing. Both the meters and the sources can be used with compatible **OTS-311D** and **OTS-312XD** testers to provide the same intelligent testing features.



OTS-300

The **OTS-300** Express meters and testers make calibrated measurements at 850, 1300, 1310, and 1550 nm from +3 to -70 dBm using a high-performance InGaAs detector that minimizes reflection effects. A powerful microcontroller performs a self-test each time the unit is powered on to ensure reliable measurements.

**OTS-300 Express sources and testers** are available with a single port 850/1300 nm LED for multimode testing and a single port 1310/1550 nm laser for single-mode testing. The most versatile source is the **OTS-3MDSD** with four wavelengths. It incorporates a dual LED and a dual laser. The **OTS-310** meter combined with the **OTS-3MDSD** creates a complete all-purpose test kit for multimode and single-mode applications.

The rugged ABS housing and elastomeric holster, weather-resistant membrane keypad, and -18 to +50° C operating temperature enable the **OTS-300s** to be used wherever there is fiber. Internal RF shielding protects from external error-causing interference. The three-way powering provides uninterrupted operation by automatically switching between the internal rechargeable Ni-Cads, replaceable batteries, and AC power. A selectable automatic shut-off function extends battery life.

#### FEATURES

- **Auto testing** provides dual wavelength display and storage that **cuts testing time in half**
- **Eliminates field paperwork** - stores up to 900 dual wavelength measurements and 50 jobs (files)
- **LinkLoss Windows-based PC software** provides storage, printing, viewing, bidirectional charts, and export
- **Four-wavelength source:** 850/1300 nm LED and 1310/1550 nm laser
- **Dual wavelength** 850/1300 nm and 1310/1550 nm sources and testers
- **Emits and detects 2 kHz "tone"** for detection, continuity, and tracing
- **Selectable 0.1/0.01 dB resolution**
- **Reliable InGaAs performance** for +3 to -70 dBm (standard range) and +20 to -60 dBm (CATV range)
- **Flexible three-way power:** AC, internal rechargeable battery, replaceable alkaline battery
- **Backlit, easy-to-read display**
- **Rugged ABS housing**
- **Wide operating temperature** range of -18 to +50° C



# OTS-300 EXPRESS SERIES POWER METERS / SOURCES AND TESTERS

## Specifications

| METER SPECIFICATIONS                    | OTS-310 METER /<br>OTS-311D AND OTS-312XD TESTERS   |
|---|---|
| Fiber Type                              | Multimode and single-mode: 100/140 μm to 9/125 μm   |
| Wavelength Range                        | 800 to 1600 nm  |
| Detector Type                           | InGaAs  |
| Calibrated Wavelengths                  | 850, 1300, 1310, 1550 nm  |
| Measurement Range                       | +3 to -70 dBm (standard) / +20 to -60 dBm (CATV)<br>Auto mode: +3 to -55 dBm (multimode) / +3 to -60 dBm (single-mode) / +3 to -45 dBm (CATV) |
| Accuracy                                | ± 0.2 dB at reference conditions, traceable to NIST calibration standards<br>(23° C, 1310 nm, and -20 dBm)                                    |
| Linearity (at 23° C)                    | 1300/1310/1550 nm: ± 0.1 dB from 0 to -60 dBm<br>850 nm: ± 0.1 dB from 0 to -50 dBm   |
| Resolution                              | 0.01 dB / 0.1 dB (selectable)   |
| Connector Adapters<br>(interchangeable) | ST compatible, FC, SC, DIN  |

| OPTICAL SPECIFICATIONS                      | LEDs<br>OTS-311D TESTER /<br>OTS-303D, OTS-3MDS LED SOURCES | LASERS<br>OTS-312XD TESTER /<br>OTS-304XD, OTS-3MDS LASER SOURCES   |
|---|---|---|
| Central Wavelength                          | 850/1300 nm ± 20 nm   | 1310/1550 nm ± 20 nm  |
| Output Power                                | >18 dBm coupled into<br>62.5/125 μm fiber                   | <ul style="list-style-type: none"> <li>■ -8 dBm coupled into 9/125 μm fiber</li> <li>■ CW or 2 kHz modes, switchable</li> </ul> |
| Spectral Width                              | < 50 nm at 850 nm<br>< 125 nm at 1300 nm<br>(FWHM typical)  | < 5 nm<br>(RMS)   |
| Output Stability                            | ± 0.1 dB at 23° C for 8 hours                               |   |
| Connector Type (Dedicated)<br>Single Output | ST™ compatible, FC, SC, DIN                                 |   |

| GENERAL SPECIFICATIONS | OTS 300 EXPRESS SERIES<br>POWER METERS / SOURCES AND TESTERS   |
|------------------------|--|
| Operating Temperature  | -18° C to +50° C (0° F to +122° F)   |
| Storage Temperature    | -40° C to +60° C (-40° F to +140° F)   |
| Display                | <ul style="list-style-type: none"> <li style="width: 50%;">■ dBm/dB with reference value</li> <li style="width: 50%;">■ 2 kHz pulsing on testers and sources</li> <li style="width: 50%;">■ Active wavelength</li> <li style="width: 50%;">■ Low battery (last available battery)</li> <li style="width: 50%;">■ Self-test with error messages</li> <li style="width: 50%;">■ Selectable automatic shut-off (30 minutes)</li> <li style="width: 50%;">■ Transmitter on (TX)</li> <li style="width: 50%;">■ Out-of-range (positive or negative)</li> <li style="width: 50%;">■ Watts</li> </ul> |
| Data Storage Capacity  | 900 fibers at both wavelengths / 50 files  |
| Power Supply           | Three-way: Internal rechargeable Ni-Cad, replaceable batteries (AA / LR6, 1.5 V),<br>AC adapter (6 V / 300 mA)   |
| Battery Life           | Meter: 34 hours typical (15 Ni-Cad and 19 lithium)<br>Source: 26 hours typical (11 Ni-Cad and 15 lithium)  |
| Dimensions             | 5.9 in x 3.4 in x 1.6 in (150 mm x 85 mm x 40 mm)  |
| Weight                 | 1 lb (< 0.5 kg)  |

# > OTS-300 EXPRESS SERIES POWER METERS / SOURCES AND TESTERS

Handheld Kits

| DESIGNATION    | KIT CONTENT   | ORDER CODE       |
|----------------|---|------------------|
| OTS-300-MD Kit | <ul style="list-style-type: none"> <li>■ OTS-303D-XX 850/1300 nm LED source (1 pc.)</li> <li>■ OTS-310-XX Express Meter (1 pc.)</li> <li>■ Patchcords (2 pcs.)</li> <li>■ Inline Adapter (1 pc.)</li> <li>■ Case (1 pc.)</li> </ul>       | OTS-300MD-KIT-XX |
| OTS-300SD Kit  | <ul style="list-style-type: none"> <li>■ OTS-304XD-XX 1310/1550 nm Laser source (1 pc.)</li> <li>■ OTS-310-XX Express Meter (1 pc.)</li> <li>■ Patchcords (2 pcs.)</li> <li>■ 1 Inline Adapter (1 pc.)</li> <li>■ Case (1 pc.)</li> </ul> | OTS-300SD-KIT-XX |
| OTS-3MDSD Kit  | <ul style="list-style-type: none"> <li>■ OTS-3MDSD-XX+D1276 Express Quad Source (1 pc.)</li> <li>■ OTS-310-XX Express Meter (1 pc.)</li> <li>■ Patchcords (4 pcs.)</li> <li>■ Inline Adapter (2 pcs.)</li> <li>■ Case (1 pc.)</li> </ul>  | OTS-3MDSD-KIT-XX |
| OTS-311D Kit   | <ul style="list-style-type: none"> <li>■ OTS-311D-XX 850/1300 nm LED Express Tester (2 pcs.)</li> <li>■ Patchcords (4 pcs.)</li> <li>■ Inline Adapter (2 pcs.)</li> <li>■ Case</li> </ul>   | OTS-311D-KIT-XX  |
| OTS-312XD Kit  | <ul style="list-style-type: none"> <li>■ OTS-312XD-XX 1310/1550 nm Laser Express Tester (2 pcs.)</li> <li>■ Patchcords (4 pcs.)</li> <li>■ 2 Inline Adapter (2 pcs.)</li> <li>■ Case (1 pc.)</li> </ul>                                   | OTS-312XD-KIT-XX |
| OTS-322XD Kit  | <ul style="list-style-type: none"> <li>■ 1310/1550 nm Laser Express CATV Tester (2 pcs.)</li> <li>■ Patchcords (4 pcs.)</li> <li>■ Inline Adapter (2 pcs.)</li> <li>■ Case (1 pc.)</li> </ul>   | OTS-322XD-KIT-XX |
| OTS-3CATV Kit  | <ul style="list-style-type: none"> <li>■ CATV Express Meter (2 pcs.)</li> <li>■ Patchcords (2 pcs.)</li> <li>■ Inline Adapter (1 pc.)</li> <li>■ Case (1 pc.)</li> </ul>  | OTS-3CATV-KIT-XX |

**XX**  
please insert  
connector code:  
52 = SC  
54 = FC  
55 = ST™  
57 = DIN



# HANDHELD TEST EQUIPMENT

Power Meters / Testers

## COMPACT POWER METERS

Compact Meters including pouch, manual and a 9 volt battery. Includes one connector adapter (OT-1AXX/ OT-5C) that must be ordered as a separate no charge item.

| DESIGNATION                  | ORDER CODE   |
|------------------------------|--------------|
| 850/1300/1550 nm Power Meter | CPM-FULLWAVE |

## BASIC POWER METERS

Basic Meters including connector adapter of choice, rubber boot, internal NiCad, manual, AC charger.

| DESIGNATION                            | ORDER CODE |
|--|------------|
| Standard Power Meter with dB reference | OTS-110-XX |
| CATV Power Meter with dB reference     | OTS-120-XX |

## EXPRESS METERS

Express Meters including connector adapter of choice, rubber boot, LinkLoss, cable, internal NiCad, operator's manual and an AC charger.

**Note:**

In order for the auto wavelength feature to work properly it must be used in conjunction with the OTS-300 Express Sources.

| DESIGNATION   | ORDER CODE |
|---|------------|
| Express Meter with dB reference, data storage, auto wavelength      | OTS-310-XX |
| CATV Express Meter with dB reference, data storage, auto wavelength | OTS-320-XX |

## EXPRESS TESTERS

Express Testers with data storage and auto wavelength including connector adapter of choice, rubber boot, manual and AC charger.

| DESIGNATION  | ORDER CODE    |
|--|---------------|
| 850/1300 nm LED Express Tester                     | OTS-311D-XX   |
| 850/1300 nm LED Express Tester with MTRJ connector | OTS-311D-MTRJ |
| 1310/1550 nm Laser Express Tester                  | OTS-312XD-XX  |
| CATV Laser Express Tester                          | OTS-322XD-XX  |

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# > HANDHELD TEST EQUIPMENT

Visual Fault Locator / Light Sources / Attenuators / Accessories

## LED LIGHT SOURCES

Includes AC Charger/Adapter, internal NiCads and manual.

| DESIGNATION           | ORDER CODE  |
|-----------------------|-------------|
| 850/1300nm LED Source | OTS-100D-XX |

## EXPRESS LIGHT SOURCES

Includes a rubber boot, AC Charger/Adapter, internal NiCads and manual.

**Note:**

In order for the auto wavelength feature to work properly it must be used in conjunction with the OTS-310 Express Meters.

| DESIGNATION                      | ORDER CODE    |
|----------------------------------|---------------|
| 850/1300nm LED Express Source    | OTS-303D-XX   |
| 1310/1550nm Laser Express Source | OTS-304XD-XX  |
| Quad Express Source              | OTS-3MDS-D-XX |

## THREE WAVELENGTH SOURCES/VFL

Includes a pouch, AC Charger/Adapter, 4 "AA" batteries and manual.

| DESIGNATION            | ORDER CODE |
|------------------------|------------|
| 850/1300/1550nm Source | OS-301-XX  |

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please insert  
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## OPTICAL VARIABLE ATTENUATOR

| DESIGNATION                                | ORDER CODE |
|--|------------|
| 1310/1550nm SM Optical Variable Attenuator | OVA-100-XX |

## ACCESSORIES FOR HANDHELD TEST EQUIPMENT

| DESIGNATION                      | ORDER CODE |
|----------------------------------|------------|
| Transit Case 2 handheld units    | 2HH-TCASE  |
| Transit Case 3 handheld units    | 3HH-TCASE  |
| Connector Cleaning Kit           | TKT-011    |
| Connector Adapter, RX, except SC | OT-1AXX    |
| Connector Adapter, RX, SC        | OT-SC      |
| Connector Adapter, MTRJ          | OT-MTRJ    |
| ST™ Bare Fiber Adapter           | BFA-ST     |
| FC Bare Fiber Adapter            | BFA-FC     |
| SC Bare Fiber Adapter            | BFA-SC     |
| DIN Bare Fiber Adapter           | BFA-DIN    |

**XX**  
please insert  
connector code:  
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54 = FC  
55 = ST™  
57 = DIN