



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 / 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) 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 (23° C, 1310 nm, and -20 dBm)
Linearity (at 23° C)	1300/1310/1550 nm: ± 0.1 dB from 0 to -60 dBm 850 nm: ± 0.1 dB from 0 to -50 dBm
Resolution	0.01 dB / 0.1 dB (selectable)
Connector Adapters (interchangeable)	ST compatible, FC, SC, DIN

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

GENERAL SPECIFICATIONS	OTS 300 EXPRESS SERIES 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 style="width: 50%;">■ 2 kHz pulsing on testers and sources <li style="width: 50%;">■ Active wavelength <li style="width: 50%;">■ Low battery (last available battery) <li style="width: 50%;">■ Self-test with error messages <li style="width: 50%;">■ Selectable automatic shut-off (30 minutes) <li style="width: 50%;">■ Transmitter on (TX) <li style="width: 50%;">■ Out-of-range (positive or negative) <li style="width: 50%;">■ Watts
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), AC adapter (6 V / 300 mA)
Battery Life	Meter: 34 hours typical (15 Ni-Cad and 19 lithium) 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"> ■ OTS-303D-XX 850/1300 nm LED source (1 pc.) ■ OTS-310-XX Express Meter (1 pc.) ■ Patchcords (2 pcs.) ■ Inline Adapter (1 pc.) ■ Case (1 pc.) 	OTS-300MD-KIT-XX
OTS-300SD Kit	<ul style="list-style-type: none"> ■ OTS-304XD-XX 1310/1550 nm Laser source (1 pc.) ■ OTS-310-XX Express Meter (1 pc.) ■ Patchcords (2 pcs.) ■ 1 Inline Adapter (1 pc.) ■ Case (1 pc.) 	OTS-300SD-KIT-XX
OTS-3MDSD Kit	<ul style="list-style-type: none"> ■ OTS-3MDSD-XX+D1276 Express Quad Source (1 pc.) ■ OTS-310-XX Express Meter (1 pc.) ■ Patchcords (4 pcs.) ■ Inline Adapter (2 pcs.) ■ Case (1 pc.) 	OTS-3MDSD-KIT-XX
OTS-311D Kit	<ul style="list-style-type: none"> ■ OTS-311D-XX 850/1300 nm LED Express Tester (2 pcs.) ■ Patchcords (4 pcs.) ■ Inline Adapter (2 pcs.) ■ Case 	OTS-311D-KIT-XX
OTS-312XD Kit	<ul style="list-style-type: none"> ■ OTS-312XD-XX 1310/1550 nm Laser Express Tester (2 pcs.) ■ Patchcords (4 pcs.) ■ 2 Inline Adapter (2 pcs.) ■ Case (1 pc.) 	OTS-312XD-KIT-XX
OTS-322XD Kit	<ul style="list-style-type: none"> ■ 1310/1550 nm Laser Express CATV Tester (2 pcs.) ■ Patchcords (4 pcs.) ■ Inline Adapter (2 pcs.) ■ Case (1 pc.) 	OTS-322XD-KIT-XX
OTS-3CATV Kit	<ul style="list-style-type: none"> ■ CATV Express Meter (2 pcs.) ■ Patchcords (2 pcs.) ■ Inline Adapter (1 pc.) ■ Case (1 pc.) 	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

XX
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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

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