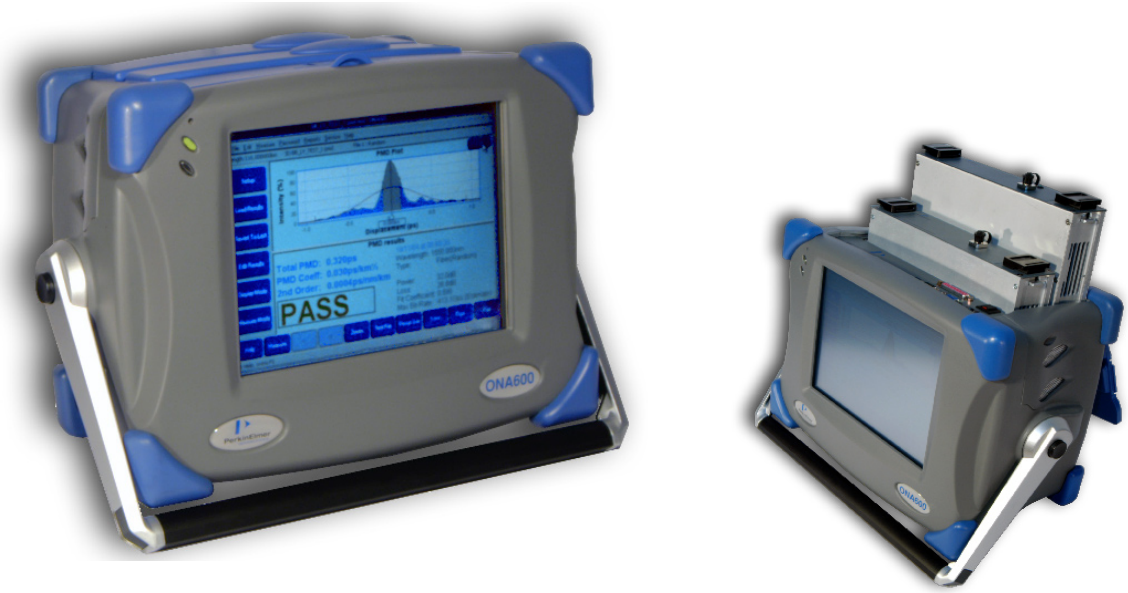
ONA600 Optical Network Analyser



- Chromatic Dispersion
- Polarization Mode Dispersion
- Spectral Attenuation
- 2nd Order PMD
- O, S, C, and L Band Operation
- Rugged and Portable
- Expandable Modular Design
- Touch-Screen Operation

Overview

The ONA600 Optical Network Analyser is a powerful and versatile tool for characterisation of optical fibers and networks. The system consists of a mainframe, plug-in modules for measurement of Chromatic Dispersion, Polarization Mode Dispersion and Spectral Attenuation with a full range of optical light sources. Designed to deliver superior performance in a field environment, the advanced modular design reduces costs and ensures ultimate flexibility in testing next generation networks. An integrated touch-screen provides fingertip operation for set-up and measurement with dedicated keys for all common operations. A variety of combinations of mainframe, modules and sources are available enabling you to configure the system to match your unique requirement and allow you to choose the most cost effective solution for your application.

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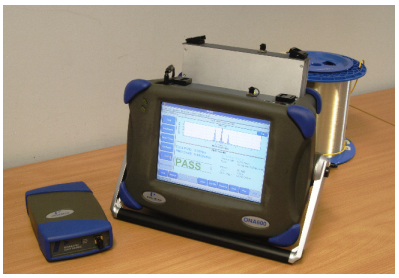
Modules



CHROMATIC DISPERSION

The CD610 delivers accurate chromatic dispersion measurements using the differential phase-shift method for all types of fiber . The CD610 may be used for testing dispersion of compensated networks and for fine tuning the dispersion of completed links. Featuring a remote LED broadband light source (ONA610LS), optical fiber links can be measured with a single connection to the test fiber. The light source unit is available with single or dual LEDs allowing 1310, 1400, 1550 or 1620 nm windows to be continuously covered.

POLARISATION MODE DISPERSION

The PMD610 is a powerful tool for characterizing Polarization Mode Dispersion and has a dynamic range exceeding 60dB. The PMD610 delivers accurate PMD measurements using the interferometric method for all types of fiber. Featuring a remote LED broadband light source (ONA610LS), networks can be measured with a single connection to the test fiber. The light source unit is available with single or dual LEDs allowing 1310, 1410, 1550 or 1620 nm windows to be continuously covered.

SPECTRAL ATTENUATION

The SA610 enables accurate measurement of Spectral Attenuation with high dynamic range Measurements can cover all or part of the wavelength range from 1250 nm to 1640 nm depending on the choice of ONA610LS light source. Note that spectral attenuation can also be offered as an option integrated with the CD610 chromatic dispersion module.

Mainframes

ONA601

The ONA601 single module mainframe is ideally suited for customers needing to characterise one fiber parameter .

ONA602

The ONA602 two module mainframe is designed for customers wishing to measure any combination of PMD, CD and Spectral Attenuation.

The ONA601 and ONA602 offer an intuitive user interface with touch-screen display to allow the operator to read and interpret measurements quickly and simply. All mainframes include a fully functioning mains powered controller unit complete with Windows™ based operating system. An integral 20 GByte hard drive and 256 MByte portable flash memory disc drive are supplied as standard.

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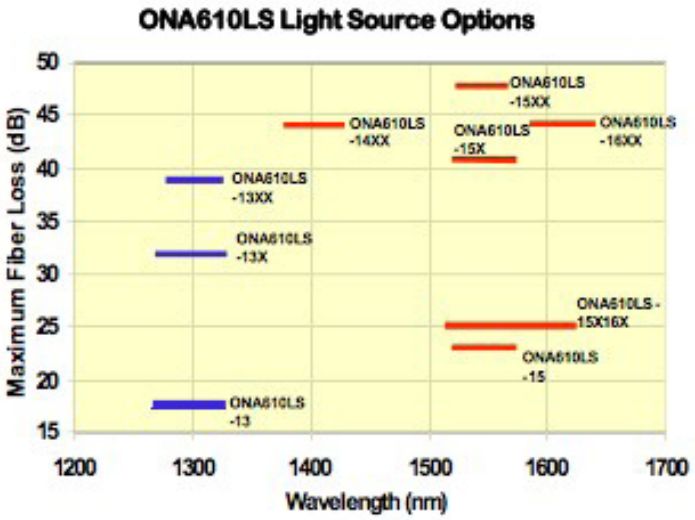
Light Sources

Customers can specify a wide variety of light sources depending on their requirements for dynamic range and wavelength coverage (as shown in Fig 1). A single light source is suitable for any combination of chromatic dispersion, PMD or spectral attenuation measurements. Many customers choose to maximise efficiency by operating the ONA600 series mainframe and modules at a central hub in combination with two or more light sources at remote locations.



General Specifications

Maximum Optical Input Power lever	+6dBm
Operating Wavelength Range	1200-1660 nm, depending on ONA610LS light source
Operating Temperature Range	+5º to +40ºC
Storage Temperature Range	-20º to +55ºC
Weight	8.3 kgs (ONA601) 8.6 kgs (ONA602)
Dimensions:	40 x 32 x 14 cm (ONA601) 40 x 32 x 19.5 cm (ONA602)
Operating Voltage	90 - 240 V AC
Power consumption	Typically 40W
Processor	Pentium compatible, with 128MB RAM
Screen	640 x 480 TFT with CFL backlight and touchscreen
Hard disk capacity	20 GB
Interfaces (all PC compatible)	1 serial port DB9 pin (COM1) 1 parallel port (lpt1), Dual USB, Ethernet (RJ45), VGA video monitor

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ONA600 Optical Network Analyser

Ordering information

Customers should specify their choice of mainframes, one or more measurement modules and one or more light sources from the following:

ONA601	Single module mainframe
ONA602	Two module mainframe
CD610	Chromatic Dispersion Module
CD610SA	CD610 with Integrated Spectral Attenuation
PMD610	Polarization Mode Dispersion Module
SA610	Spectral Attenuation Module
ONA610LS/13	Standard Broadband 1310 nm Source
ONA610LS/13X	High Power Broadband 1310 nm Source
ONA610LS/13XX	Extra High Power Broadband 1310 nm Source
ONA610LS/14XX	Extra High Power Broadband 1410 nm Source
ONA610LS/15X	High Power Broadband 1550 nm Source
ONA610LS/15XX	Extra High Power Broadband 1550 nm Source
ONA610LS16XX	Extra High Power Broadband 1600 nm Source
ONA610LS13XX15XX	Extra High Power Broadband 1310 to 1550 nm Source
ONA610LS15X16X	High Power Broadband 1500 to 1630 nm Source

Options

In order to tailor the ONA600 series products to individual requirements, the following options are available.

ONA-KBD	Mini Keyboard (PS2)
ONA-MS	Mouse (PS2 or USB)
ONA620	Hard cover transit case
VM610	Connector inspection camera
ONA600-BAT1	Standard battery (internal)
ONA600-BAT2	Extended life battery (external)
PMD444	PMD deterministic check unit (~8ps)
PMD445	PMD emulator (~10ps)
PMD446	PMD Calibration artefact (~0.9ps)

PE.fiberoptics reserve the right to change or amend specifications without notice.

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Technical Specifications

Please contact your local representative for detailed technical specifications on your desired configuration.

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