The MPX
Modal Explorer

The MPX Modal Explorer is the Encircled Flux meter of choice for leading companies around the world. Simply connect your source and patchcord to the MPX, and it will measure Modal Launch Conditions in real-time.

Product highlights

- End face inspection mode with focus indicator to give better repeatability from operator to operator
- Power monitor - optimize light throughput and modal conditions simultaneously
- Real-time measurement - adjust modal conditions easily as well as increase productivity
- Internal LED with fully filled launch condition
- USB2.0 connection gives portability - with the optional carrying case plus a laptop computer
- Optional geometrical calibration artefact to enable user calibration of MPX

Applications include

- Source and patchcord characterization for IEC11801 and TIA/EIA568 LAN testing
- VCSEL characterization for Gigabit Ethernet IEEE 802.3
- Mode-scrambler and mode-filter characterization
- Connector inspection
- Measure sources to IEC 61280-4-1
- Alignment of pig-tailed light sources

MPX Geometrical Calibration Artefact (Optional)

MPX-2 in Carrying Case (Optional)

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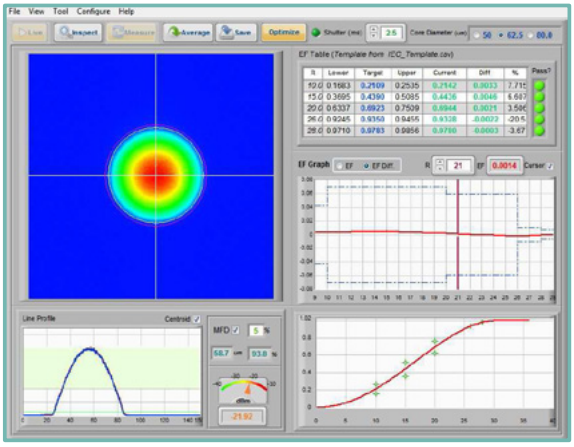

Screenshot of MPX Modal Explorer

Technical Specification

	MPX-1	MPX-2
Wavelength	850nm (Encircled Flux measurement range is from 400 to 1100nm but End Face Inspection and Focusing is at 850nm)	1300nm (Encircled Flux measurement range is from 900 to 1700nm but End Face Inspection and Focusing is at 1300nm)
Size	260mm (W) x 270mm (D) x 90mm (H) 10" (W) x 10.5" (D) x 3.5" (H)	260mm (W) x 390mm (D) x 110mm (H) 10" (W) x 15" (D) x 4.5" (H)
Weight	2.5kg / 5.5lb	7.0g / 15.5lb
Dynamic Range	60dB	>60dB
Image Sensor	CCD array, 12 bit, 4.65µm square pixels	InGaAs array, 12 bit, 30.0µm square pixels
Maximum core diameter	100µm	100µm
Maximum source power	Approx 10mW (depends on power density, fiber type etc.)	Approx 10mW (depends on power density, fibre type, etc.)
Input connector adaptors available	Universal 2.5mm ferrule; LC (both supplied as standard) FC, ST, SC, MTP, Bare fiber (optional)	Universal 2.5mm ferrule; LC (both supplied as standard) FC, ST, SC, MTP, Bare fiber (optional)
End Face Inspection and Focussing	850nm LED	1300nm LED
Built-in reference source	850nm LED, FC connector, over-filled (110µm core diameter; 0.37 N.A.)	1300nm LED, FC connector, over-filled (110µm core diameter; 0.37 N.A.)
Power	External switched mode power supply (supplied)	External switched mode power supply (supplied)
Connection to computer	USB 2.0 (USB B to USB A: 2m cable supplied)	USB 2.0 (USB B to USB A: 3m cable supplied)
Computer requirements (minimum specification)	1.5GHz or higher processor, 1GB RAM ; USB 2.0 port - NOTE system will not work with USB 1.1 port	1.5GHz or higher processor, 1GB RAM ; USB 2.0 port - NOTE system will not work with USB 1.1 port
Operating systems supported	Windows 7/8 32bit or 64bit, Windows XP SP3	Windows 7/8 32bit or 64bit, Windows XP SP3
Operating Temperature	0º – +50ºC	0º – +50ºC
Humidity	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing

Computer Requirements	
Operating systems support	Windows 7, 32bit or 64bit; Windows 8, 32bit or 64bit
Computer requirements (minimum specification)	2GB RAM ; USB 2.0 port - NOTE system may not work with USB 3

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Ordering Information

Part Number	Description
MPX-1	MPX-1 system for modal analysis of multimode fibers at 850nm, including optical unit, cables, software package and user manual. System is supplied with a universal 2.5mm connector adaptor and an LC connector adaptor. Computer not included. See product specification for information about computer configuration.
MPX-2	MPX-2 system for modal analysis of multimode fibers at 1300nm, including optical unit, cables, software package and user manual. System is supplied with a universal 2.5mm connector adaptor and an LC connector adaptor. Computer not included. See product specification for information about computer configuration.

Options	Decription
MPX-CC-01	Rigid carrying case for MPX-1
MPX-CC-02	Rigid carrying case for MPX-2
MPX-CP01	Chrome-on-Glass calibration artefact and software package for MPX-1 and MPX-2 to enable user calibration traceable to NPL standards. Includes Chrome-on-Glass artefact, software CD and operation instructions
MPX-CAU250	Input connector adaptor for 2.5mm diamter ferrule connectors, universal (supplied as standard with MPX-1 and MPX-2)
MPX-CALC	Input connector adaptor for LC connectors (supplied as standard with MPX-1 and MPX-2)
MPX-CAFC	Input connector adaptor for FC connectors
MPX-CAFC/APC	Input connector adaptor for FC/APC connectors
MPX-CASC	Input connector adaptor for SC connectors
MPX-CASC/APC	Input connector adaptor for SC/APC connectors
MPX-CAST	Input connector adaptor for ST connectors
MPX-CAMTP	Input connector adaptor for MTP connectors
MPX-CAMTRJ	Input connector adaptor for MTRJ connectors
MPX-CAU250/APC	Input connector adaptor for 2.5mm diameter ferrule APC connectors, universal
MPX-MPX-SR3	Fiber shaker with 2 fibers (1 x OM1 and 1 x OM2); FC/PC connectors on input and output
MPX-UEW3	MPX extended warranty covering parts and labour for 3 years from purchase, return to base. Cover excludes camera
APL-LC	Laptop computer, pre-installed with application software
APL-DC	Desktop computer, pre-installed with application software

Iss 25 Feb 15