

mOPM-C1RHPM Remote Head Polarity Mapper

Simultaneous IL, RL, and Polarity for MAP-Series

The mOPM-C1RHPM is the world's first production test module to acquire Insertion Loss (IL), Return Loss (RL), and optical polarity simultaneously – in a single connection, with zero added cycle time and no change to the standard PCT test procedure. It attaches to a MAP Remote Head Interface Cassette (MOPM-C1RHx) and delivers hardware-level polarity detection on every channel, every test pass.

A 12-channel MPO assembly is fully characterized in 23 seconds at two wavelengths. A 24-channel MPO in 44 seconds. Polarity is included in both – no extra connection, no separate software step. The OPM-C1RHPM supports many connector types including MPO, SN-MT, and FAU connector formats, single-mode and multimode fiber, and scales easily to many channels without platform changes.



Key Features

- Simultaneous IL, RL, and polarity – zero extra time, zero extra steps
- 23 s for 12-channel MPO; 44 s for 24-channel MPO over two wavelengths
- All connector formats: MPO, MXC, SN-MT, FAU, Proprietary Lensed
- 0 s polarity cycle time penalty – simultaneous with IL/RL
- Full SCPI control – same command sequence as IL/RL

Applications

- Simultaneous IL, RL, and polarity testing of MPO/MTP assemblies
- High-volume multifiber polarity verification in production
- FAU (Fiber Array Unit) complete characterization
- SN-MT, MXC, and non-standard lensed connector testing
- Single-mode and multimode production test environments

Compliance

- Complies with CE, CSA/UL/IEC61010-1, and LXI Class C requirements
- IEC 61300-3-4 and IEC 61300-3-6
- Multimode meets IEC 61280-4-1 Encircled Flux standard

Requirements

- Requires MAP-300 with mORL-A1 and MOPM-C1RH1 cassette
- Requires PCTmax and MAP-300 Release 13.0 or later

Production speed. Not lab speed.



Prescreen DUTs

0.2 s

per channel

12 channel prescreen in < 4 seconds.

24 channel prescreen in < 8 seconds.

Increase throughput by over 90% in real production environments.

Fastest Full IL + RL + Polarity

0.9 s

per channel per wavelength

Patented Parallel Test Capability.

Insertion loss, return loss and polarity. The complete quality picture in under a second.

Best Throughput

3700

Units of Test Capacity Per Day (12F, 2λ)

Faster test – more product gets shipped.

IL, RL, and polarity simultaneously. 24 channels, fully done. No separate polarity step.

No other IL/RL test system on the market delivers all three.

2379.900.0626

Every DUT Format Your Line Will Ever See.

PCT is built for the DUT formats your production line encounters today and the formats it hasn't invented yet. Single-mode, multimode, MPO, FAU, SN-MT, bare fiber via eTDR – one platform, one interface, no reconfiguration.

One platform. One interface. No compromises.

PCT supports:

Any Core

- Singlemode
- Multimode
- Multicore
- Hollow Core

Any Connector

- SN-MT
- Bare Fiber
- MT
- FAU
- MPO/MTP
- TMT
- LC
- Simplex
- HMFOC

Fully Optimized

- Prescreening
- Troubleshooting
- Full SCPI Support
- IL + RL + Polarity
- In One Step

Specifications

For more information on this or other products and their availability, please contact your local VIAVI account manager or VIAVI directly at 1-844-GO-VIAVI (1-844-468-4284) or visit viavisolutions.com/contacts.

Parameter	Single-Mode	Multimode
Timing		
Test Time – IL + RL + Polarity (12-ch, 2λ)	23 seconds	23 seconds
Test Time – IL + RL + Polarity (24-ch, 2λ)	44 seconds	44 seconds
Time Penalty Measuring IL/RL	0 s	0 s
Prescreening with FastIL	0.2 s per channel	0.2 s per channel
Fiber and Connector Types		
Multi Fiber	All connector formats – MPO, MXC, SN-MT, FAU types, Proprietary Lensed Connectors, Multicore	All fiber core sizes
Minimum Resolvable Fiber Pitch	30 μm	40 μm
Maximum Connector Aperture	11.3 mm circular	11.3 mm circular
Angular Deviation Tolerance	0.5° between channels	0.5° between channels
Accuracy		
Additional IL Uncertainty	0.01 dB	0.01 dB
Accuracy Impact – RL	0 dB	0 dB
Polarity and Scale		
Maximum Tolerance for IL in Polarity	> 20 dB	> 20 dB
SCPI Automation	Full IL + RL + Polarity	Full IL + RL + Polarity

Power Meter Connector Adaptors – VIAVI provides the latest power-meter adaptor interfaces for all current and emerging connector formats. As connector formats evolve, new adaptors are developed to support them. For custom connector formats, VIAVI can provide mechanical specifications and drawings. Refer to the AC Adaptor Selection Guide for all available adaptors compatible with the mOPM-C1RHPM and mORL-A1.

Ordering Information

mOPM-C1RHPM Module and Base Cassette

Type	Part Number	Description
Remote Head Polarity Mapper	mOPM-C1RHPM	Simultaneous IL/RL/Polarity remote head – requires MOPM-C1RH1 base cassette
Remote Head Base Cassette	MOPM-C1RH1	Single channel remote interface cassette (required for mOPM-C1RHPM)
	MOPM-C1RH2	Dual channel remote interface cassette
	MOPM-C1RH4	Quad channel remote interface cassette

Optional Software Licenses

Type	Part Number	Description
	MSUP-300A-PCT-TDR	MAP-300 Enhanced PCT TDR license
	MSUP-300A-PCTLOGGING	MAP-300 PCT continuous mode logging license

Remote Head Polarity Mapper requires PCTmax and MAP-300 Release 13.0 or later.

Contact Us

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