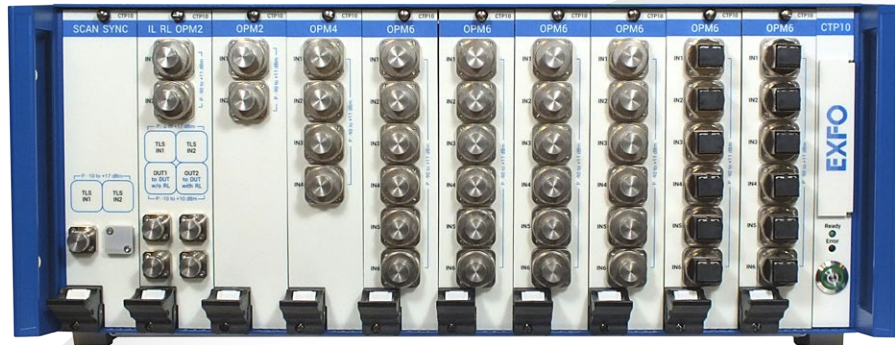


CTP10

COMPONENT TEST PLATFORM



Efficiently test passive components in 24/7 operation. Perform single sweep insertion loss and return loss measurements with 70 dB dynamic range and unprecedented speed and resolution.

KEY FEATURES

Industry's fastest insertion loss (IL) and return loss (RL) measurements: dynamic range of 70 dB in a single sweep and 1000 nm/s operation

Hosts up to ten hot swappable modules

Up to 60 detectors operating at 1 Msps per detector

Powerful and intuitive GUI for easy test configuration and measurement analysis

CTP10 PLATFORM

The CTP10 is a modular measurement platform for efficient testing of passive components in 24/7 operation. Single sweep IL and RL measurements with 70 dB dynamic range can be performed with unprecedented speed and resolution. The CTP10 is the ideal instrument for the characterization of large port number components used in DWDM networks and PIC applications.

NEXT-GEN PLATFORM AND MODULES

The CTP10 platform hosts up to 10 hot-swappable modules. It has an embedded operating system for handling and processing a large amount of data.

The following modules are available for the CTP10:

- › IL RL OPM2: insertion loss and return loss measurement system with two optical power meters
- › SCAN SYNC: optical sampling of swept wavelength lasers
- › OPMx: optical power meters (x = 2, 4 or 6)

FASTEST SWEPT AND STEPPED IL & RL

In terms of IL & RL measurement, the CTP10 outperforms all existing instruments. It offers a dynamic range of 70 dB in a single sweep for a tunable laser speed at 100 nm/s with 10 dBm output power and can operate at a sweep speed of 1000 nm/s. The power meter has no slew rate issues: it can handle a filter slope of 10,000 dB/nm at 100 nm/s sweep speed and 0.1 pm resolution. Moreover, small IL ripple is accurately determined thanks to a power sampling resolution of 0.1 mdB.

POWERFUL INTUITIVE GUI

The embedded software offers a powerful and intuitive GUI displayable on two screens: one for the module overview and the other for display and analysis of the swept measurements.

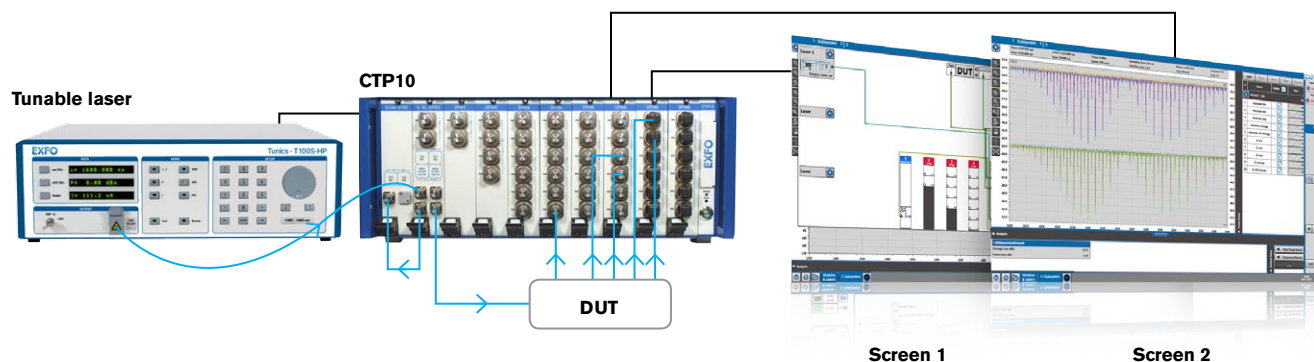


Figure 1. Display and analysis of measurements

Figure 2. Module and laser overview

TYPICAL SETUP

Insertion loss and return loss measurements can be performed using a swept tunable laser with the IL RL OPM2 and SCAN SYNC modules. Additional OPMx modules can be used to match the number of channels of the component under test (DUT). Once the setup is configured in the GUI, the system is ready for data acquisition.



SPECIFICATIONS

		CTP10
Wavelength	Operating wavelength range (nm) ^a	1240 to 1680
	Accuracy ^{b, c}	±5 pm (typical)
	Resolution ^d (pm)	0.1 to 2000
Power	Power meter range (dBm)	-90 to +11
	Power sampling resolution	0.1 mdB @ 1 μs integration time
Transfer	IL & RL dynamic range ^e	70 dB in a single sweep
	IL & RL slope detection ^f	> 1 dB/μs
Speed	Sweep speed ^a	1 nm/s to 1000 nm/s
	Data acquisition	1 Msps per power meter
Modules	IL RL OPM2 – reference for IL & RL measurement with 2 optical power meters	2x laser input ports (FC/APC) 2x output ports (1x FC/PC and 1x FC/APC) Free space power meters (FC or SC connector)
	SCAN SYNC – optical sampling	1x input port (FC/APC)
	OPM2 – 2 optical power meters	Free space power meters (FC or SC connector)
	OPM4 – 4 optical power meters	Free space power meters (FC or SC connector)
	OPM6 – 6 optical power meters	Free space power meters (FC or SC connector)

Notes

- Depending on tunable lasers. Platform is compatible with: T100S-HP (EXFO), 81640A (Agilent), 81606A (Keysight), TLB6600 (Newport).
- Optical sampling: wavelength accuracy from SCAN SYNC module (independent of external tunable laser).
- Electrical Sampling: accuracy depending on external tunable laser and on quality of its trigger signal.
- Depending on sampling method and scan speed of the tunable laser.
- Tunable laser operated at 10 dBm output power.
- Level on power meter > -60 dBm.

SPECIFICATIONS

External	Screens (2 active at a time)		2x display ports & 2x HDMI ports
	Others (e.g., mouse, keyboard, hard disk)		Multi-touch gesture control
Remote	Ethernet	RJ45 (x1)	1 Gbit/s (max.)
	GPIB (optional)	IEEE 488 (x1)	7.2 Mbit/s (max.)
	USB	USB-B (x1)	300 Mbit/s (max.)
Electrical (rear panel of the mainframe)	In (BNC)	Trig in (x4)	5 V TTL (1 MHz max.)
		Sync in (x1)	5 V TTL (10 MHz typ.)
		Interlock (x1)	5 V TTL
	Out (BNC)	Trig out (x4)	5 V TTL (1 MHz max.)
		Sync out (x1)	5 V TTL (10 MHz typ.)
		Analog out (x2)	0-5 V
General specifications	Dimensions (H x W x D)		178 mm x 482 mm x 435 mm / 7 in x 19 in x 17 in , 4U full rack
	Weight	Mainframe	8.5 kg
		Module	Between 1 kg to 1.2 kg
Power supply		100 V to 240 V ~ (50/60 Hz)	

ORDERING INFORMATION

CTP10-XX

GPIB option

0 = Without GPIB
GPIB = With GPIB

Example: CTP10-GPIB

IL-RL-OPM2-58-XX

Connector adaptor

FOA-322-EMC = FC ultra-low-reflection: FC (PC/SPC/UPC/APC)
FOA-354-EMC = SC ultra-low-reflection: SC (PC/SPC/UPC/APC)

Example: IL-RL-OPM2-58-322

SCAN-SYNC-58

Example: SCAN-SYNC-58

OPMX-XX

Number of detectors

2 = 2 power meters
4 = 4 power meters
6 = 6 power meters

Connector adaptor

FOA-322-EMC = FC ultra-low-reflection: FC (PC/SPC/UPC/APC)
FOA-354-EMC = SC ultra-low-reflection: SC (PC/SPC/UPC/APC)

Example: OPM6-322

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