Anritsu

MU150110A Multirate Unit

MP1590B
Network Performance Tester

Improves Measurement Efficiency for 10G SDH/SONET Transmission Equipment

Next Generation Networks (NGNs) require transmission equipment, such as MSPP/MSTP, supporting large capacity, QoS, and high-level functions, as well as SDH/SONET/OTN and Ethernet. To meet these needs, measuring equipment must support effective, low-cost evaluation of transmission equipment with a wide range of interfaces. Anritsu is answering these needs by releasing the MU150110A Multirate Unit as a plug-in unit for the MP1590B Network Performance Tester.
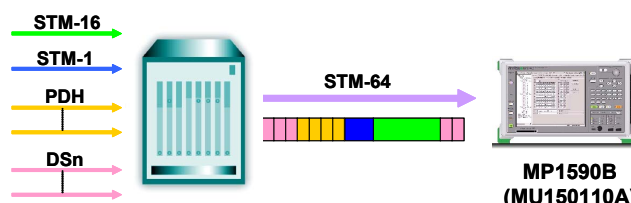
The MU150110A is backwards compatible with the MU150100A, adding support for 11.1G (OTU1e, OTU2e) and 10.3G (10 GbE) interfaces to the current interface. It also supports simultaneous multichannel measurements, greatly reducing time (and costs). And because the 10 G optical interface is housed in one module, the MU150110A does not require a separate 10 G optical interface unit (MU150135A), making system setup easy and cutting equipment costs too.

(Note) Jitter measurements require a dedicated 10 G optical interface unit.

■ Key Features

● Simultaneous multichannel measurements up to 10G

Simultaneous measurement of up to 5376 channels greatly reduces measurement time and costs.

● Detailed 10 GbE Phy layer measurements

In addition to throughput and BER measurements, PCS (Physical Coding Sublayer) measurements and LFS (Link Fault Signaling) measurements are useful for troubleshooting 10 GbE connections.

● ITU-T O.182 FEC performance evaluation

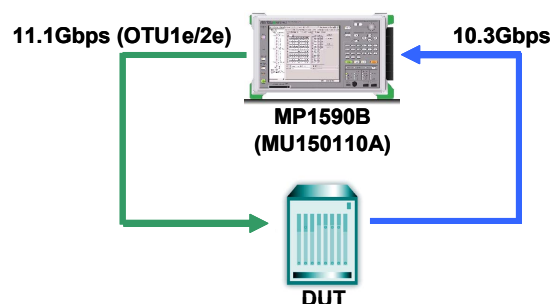Reproducible and accurate FEC tests are supported in full compliance with international standards.

● All-in-one unit supports multirates from 1.5M/2M to 11.1G for SDH/SONET/OTN/PDH/DSn/10GbE analyses

SDH/SONET/OTN, 10 GbE over OTN (11.1G), and 10 GbE are supported by the all-in-one unit, reducing the benchtop footprint, test environment setup costs, and future expansion investment.

● Supports 10G optical interface

The easy configuration helps cut costs.
Changing XFP optical module switches optical wavelengths.

■ **MU150110A Functions**

● **Supports 1.5M/2M to 11.1G bit rate**

● **10G optical interface installed** [*1]

● **Simultaneous multichannel measurements**
  ➢ Supports SDH/SONET from STM-0/OC-1 to STM-64/OC-192
  ➢ Simultaneous measurements of all channels from high order to low order in 10G bandwidth (maximum 5376ch of VC11/VT1.5 and 4032ch of VC12/VT2).
  ➢ Mapping automatic search function
  ➢ Error/alarm, BER, APS and delay time measurements
  ➢ Check error/alarm occurrences for each channel using path monitor function
  ➢ Event log function

● **PDH/DSn measurements**
  ➢ 1.544, 2.048, 8.448, 34.368, 44.736, 139.264 Mbit/s
  ➢ Error/alarm addition and measurement

● **SDH/SONET measurements**
  ➢ Unframed
  ➢ STM-0/OC-1 (52M), STM-1/OC-3 (156M), STM-4/OC-12 (622M), STM-16/OC-48 (2.5G), STM-64/OC-192 (10G)
  ➢ Error/alarm addition and measurement
  ➢ Overhead editing/monitoring (SOH, TOH, POH)

● **OTN measurements**
  ➢ Unframed
  ➢ OTU1 (2.6G), OTU2 (10.7G)
  ➢ OTU1e (11.04G), OTU2e (11.09G)
  ➢ Error/alarm addition and measurement
  ➢ Overhead editing/monitoring (OUT, ODU, OPU, FAS, TTI, FTFL)
  ➢ ITU-T O.182 FEC performance evaluation

● **10GbE-LAN measurements**
  ➢ PCS (Physical Coding Sublayer) measurements
  ➢ Link fault signaling measurements
  ➢ Stream transmission
  ➢ Throughput measurements
  ➢ BER measurements
  ➢ Sequence error measurements
  ➢ Latency measurements

● **Jitter measurements** [*2]
  ➢ Jitter generation measurements
  ➢ Jitter tolerance measurements
  ➢ Jitter transfer measurements

● **Others**
  ➢ Through mode
  ➢ Variable transmission frequency
  ➢ Frequency monitoring
  ➢ Optical power monitor

*1: XFP module required (sold separately)

*2: Jitter measurements require MU150121A/B, MU150123A/B, MU150124B and MU150125A, depending on configuration.

■ **Appearance**

MU150110A Multirate Unit

MP1590B Network Performance Tester

■ **Ordering Information**

	Model	Name
Plug-in unit	MU150110A	Multirate Unit
Option	MU150110A-004	Optical Output Power Adjustable
	MU150110A-005	OTU1/OTU2
	MU150110A-006	11.1G
	MU150110A-008	10.3G
	MU150110A-009	Insert/Extract
	MU150110A-010	Multichannel Measurement

	Model	Name
Optional Accessory	G0194A	1310 nm XFP Module
	G0195A	1550 nm XFP Module
	J1059B	Balanced Cable (RJ-45/Siemens 3P), 2 m
	J1060B	Balanced Cable (RJ-45/BANTAM 3P), 2 m