OC-12/3 STM-4/1 Receiver
OC-12/3 STM-4/1 Payload Monitor

gnubi's™ SONET/SDH transmitters and receivers are ideal cost-effective, multi-channel solutions for an equipment manufacturer's production and verification labs in the metro and long haul markets.

Expandable Multiple Rate Testing

Unlike other test equipment, gnubi's SONET/SDH test products give you the flexibility to create the test applications that you need now and the expandability to grow with your testing needs in the future. You can mix the OC-12/3 STM-4/1 Receiver with other test modules in a single chassis for multiple rate testing.

Simultaneous Multi-port Testing.

With the OC-12/3 STM-4/1 Receiver, you can install as many as 17 modules for simultaneous multi-port testing. Using EPXam™ tools such as Group Manager, Test Controls, or Script Runner, control multiple instances of the same test simultaneously. Or conduct different tests at the same time.

EPX700 Receiver

The EPX700 Receiver monitors basic SONET/SDH alarms and errors at OC-12, OC-3, STM-4, or STM-1 signal rates. It is designed for all of gnubi's chassis models. You can easily switch between SONET and SDH protocols without powering down the test system.

EPX750 Payload Monitor

The optional EPX750 Payload Monitor mounts directly on the EPX700. It extends the EPX700 module's capabilities with full-featured SONET/SDH payload monitoring, overhead capture, and selectable payload mappings. Monitor additional SONET/SDH alarms and errors, SONET performance statistics, trace messages, pointer values and event counts, and K1/K2 byte values and messages.

Easy to Use

You can start testing quickly and easily with the EPXam graphical user interface. Other ease-of-use features include saving and restoring test configurations, connecting remotely with a web browser, logging, scripting, and sharing test resources with others.

With Checkpoint/Resume, recovering from a power failure is easy. Module setup and test data are saved at intervals that you can define. When the system is restarted after a power failure, tests are resumed with minimal data loss.

Upgradable

As new features are developed for gnubi's test modules, download the upgrades from our website. Visit www.gnubi.com to learn about the latest features and upgrades.

Features

- Monitor at 622.08 MHz or 155.52 MHz
- Selectable payload mappings (with EPX750)
- Full SONET/SDH payload monitoring and overhead capture (with EPX750)
- Checkpoint/Resume
- Test multiple rates and protocols within a single chassis
- SONET/SDH runtime switching
- Full-featured graphical and command-line user interfaces
- Log alarms, errors, and SONET performance monitoring statistics
- Multi-user remote access via web browser

Applications

- Production, validation, and metro market applications that test multiple rates and channels
- WDM traffic monitoring
- Add/drop multiplex and demultiplex
- Simultaneous monitoring of up to 17 channels
- Live traffic monitoring
- Receive BERT

Specifications

OC-12/3 STM-4/1 Receiver and Payload Monitor

Model	EPX700	OC-12/3 STM-4/1 Receiver
	EPX750	OC-12/3 STM-4/1 Payload Monitor (optional add-on for EPX700)
Installation	All gnubi chassis models; uses one slot	
Signal Rates	SONET	OC-12 (622.08 MHz), OC-3 (155.52 MHz)
	SDH	STM-4 (622.08 MHz), STM-1 (155.52 MHz)
Optical Interface	Response	1200 to 1600 nm
	Sensitivity/Overload	0/-28 dBm
	Power meter	± 1 dBm
	Connectors	SC, ST, or FC connectors
Payload Mappings	SONET	EPX750: OC-12: STS-12c, STS-3c, STS-1 OC-3: STS-3c, STS-1
	SDH	EPX750: STM-4: VC-4-4c, VC-4, VC-3 STM-1: VC-4, VC-3
Alarm Monitoring	SONET	EPX700: LOS, LOF, SEF
		EPX750: AIS-L, RDI-L, LOP, AIS-P, Path Unequipped, RDI-P, LPS
	SDH	EPX700: LOS, LOF, OOF
		EPX750: MS-AIS, MS-RDI, AU-LOP, AU-AIS, HP Unequipped, HP-RDI, LSS
Error Monitoring	SONET	EPX700: Section (B1), Line (B2)
		EPX750: REI-L, Path (B3), REI-P, Payload Bit Errors
	SDH	EPX700: Section (B1), Multiplex Section (B2)
		EPX750: MS-REI, Path (B3), HP-REI, Test Sequence Errors
Data Patterns	PRBS	EPX750: True and inverted: 2^{15}-1, 2^{20}-1, 2^{23}-1
	Other	EPX750: All ones, all zeroes, alternating 10, alternating 01, fixed 8-bit user word, live traffic
Overhead Capture	SONET/SDH	EPX750: Full SONET/SDH transport and path overhead capture
Trace Messages	SONET	EPX750: J0 section and J1 path trace message monitor
	SDH	EPX750: J0 trace message monitor (actual and expected), RS-TIM alarm monitor EXP750: J1 trace message monitor (actual and expected), HP-TIM alarm monitor
Performance Data	Alarms and Errors	Alarm history, error counts, and ratios
	Pointer	EPX750: Pointer value, counts: increments, decrements, moves with NDF, moves without NDF
	K1/K2 Values and Messages	EPX750: K1/K2 byte values; K1/K2 message decode: K1 Request, K1 Channel, K2 Operation, K2 Architecture; K2 Channel
	SONET Performance Monitoring	EPX750: ES (Errored Seconds), SES (Severely Errored Seconds), and UAS (Unavailable Seconds) for Section, Near-End Line, Far-End Line, Near-End Path, and Far-End Path Layers
Compliance	SONET	GR-253 jitter tolerance
	SDH	ITU-T G.957 jitter tolerance
Operating Temperature	0º to 40º Celsius, non-condensing	
Warranty and Service	Standard	1 year parts and labor
	Extended	Service Plan available

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