



STS-1 TRANSCEIVER

gnubi's™ SONET transceivers 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 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 STS-1 Transceiver with other test modules in a single chassis for multiple rate testing.

SIMULTANEOUS MULTI-PORT TESTING

With the STS-1 Transceiver, 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.

EPX800 TRANSCEIVER

The EPX800 Transceiver supports STS-1 signal generation and monitoring with selectable payload mappings. It is designed for all of gnubi's chassis models.

Using the test system backplane, the STS-1 Transceiver can add and drop STS-1 channels to and from OC-12 or OC-3 signals.

PAYLOAD GENERATION AND MONITORING

The EPX800 module provides SONET payload generation and monitoring. The STS-1 Transceiver can generate and monitor STS-1, DS3, DS1 and VT1.5 payload mappings.

Features include SONET, DS3, DS1, and VT1.5 alarm and error insertion and monitoring, section trace message insertion and monitoring, and pointer manipulation and monitoring.

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 configurations, connecting remotely with a web browser, scripting, logging, and sharing test resources with others.

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

- Transmit and monitor at 51.84 MHz
- Selectable payload mappings
- SONET payload generation and monitoring
- Test multiple rates and protocols within a single chassis
- Full-featured graphical and command-line user interfaces
- Log alarm and error statistics
- Multi-user, remote access via web browser

Applications

- Production, validation, and metro market applications that test multiple rates and channels
- WDM traffic loading and monitoring
- Add/drop multiplex and demultiplex
- Live traffic monitoring
- Transmit and receive BERT

Specifications

STS-1 Transceiver

Model	EPX800	STS-1 Transceiver
Installation	All gnubi chassis models; uses one slot	
Signal Rates	STS-1 (51.84 MHz)	
Electrical Interface	Connectors	BNC 75 Ohm
Timing References	EPX100 Clock Module	BITS input, external input, internal
	As Received	Recovered clock from backplane OC-12/3 signal or from receiver port
	Internal	On-board oscillator (+/- 4.6 ppm)
Payload Mappings	STS-1 bulk filled, 28 asynchronous VT1.5-mapped DS1 signals, DS3 bulk filled, DS3 with 28 DS1 signals	
Framing	DS3	M13, CBIT
	DS1	Extended Superframe (ESF), Superframe (SF), Unframed
Alarm Insertion and Monitoring	STS-1	LOS, LOF, SEF, AIS-L, RDI-L, AIS-P, RDI-P LOP, Path Unequipped, LPS
	VT1.5	LOP-V, AIS-V, RDI-V, UNEQ-V
	DS3	OOF, AIS-P, Yellow, Idle, LPS
	DS1	OOF, AIS-P, Yellow, LPS
Error Insertion	STS-1	Section (B1), Line (B2), Path (B3), Payload Bit, Line FEBE (M0), Path FEBE (G1)
	VT1.5	VT Path, VT Path FEBE
	DS3	P bit, CP bit, Payload Bit
	DS1	Frame, CRC-6, Payload Bit
	Error Rates	Insert a single error or insert errors at 1E-3 to 1E-9 rates
Error Monitoring	STS-1	Section (B1), Line (B2), Path (B3), Payload Bit, Line FEBE (M0), Path FEBE (G1)
	VT1.5	VT Path CV (BIP-2), VT Path FEBE
	DS3	Frame, FEBE, P bit, CP bit, Payload Bit
	DS1	Frame, CRC-6, Bit
Data Patterns	PRBS	True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1
	Other	Fixed 8-bit user word, all ones, all zeroes, alternating 10, alternating 01, live traffic (monitor)
	DS1	DALY, QRSS, 1 of 8, 2 of 8, 1 of 16, 3 of 24
Trace Messages	STS-1	64-byte J0 section trace message insertion and monitoring
Pointer	Increment, decrement, move with NDF	
Performance Data	Alarms and Errors	Alarm history, error counts, and error ratios
	Pointer	Pointer increment, decrement, NDF move, and MNDF move counts
Compliance	GR-253 eye mask, pulse	
Operating Temperature	0° to 40° Celsius, non-condensing	
Warranty and Service	Standard	1 year parts and labor
	Extended	Service Plan available

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