

QUAD DSI PORT MODULE

gnubi's[™] electrical test modules 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 Quad DS1 Port Module with other test modules in a single chassis for multiple rate testing.

SIMULTANEOUS MULTI-PORT TESTING

With the Quad DS1 Port Module, 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.

EPX200 QUAD PORT MODULE

The EPX200 Quad Port Module supports DS1 signal generation and monitoring. It is designed for all of gnubi's chassis models. You can configure the module as a fourport transmitter, a four-port receiver, or two transmitter and receiver pairs.

PAYLOAD GENERATION AND MONITORING

The EPX200 module provides payload generation and monitoring. Features include alarm and error insertion and monitoring, framing options, and data pattern selection.

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 1.544 MHz
- Selectable payload mappings
- 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
- Add/drop multiplex and demultiplex
- Live traffic monitoring
- Transmit and receive BERT

Specifications

Quad DS1 Port Module

Interface Line Codes AMI, B8ZS Transmit Selectable LBO Receive Auto equalization, peak level detect, frequency measurement Connectors 100 Ohm balanced Bantam	Model	EPX200	Quad DS1 Port Module	
Interface	Installation	All gnubi chassis models; uses one slot		
Transmit Selectable LBO Receive Auto equalization, peak level detect, frequency measurement Connectors 100 0hm balanced Bantam EPX100 Clock Module BITS input, external input, internal As Received Recovered clock from receiver port Internal 0n-board oscillator (+/- 20 ppm) Payload Mappings Framed Extended Superframe (ESF), Superframe (SF), SLC-96 Channelized (with or without Robbed Bit Signalling), unchannalized. Unframed LOS, OOF, AIS, Yellow, LPS Alarm Monitoring LOS, OOF, AIS, Yellow, LPS, Excessive Zeroes Error Insertion Types BPV, Frame, CRC (ESF), Pattern Bit Errors Rates Insert a single error or a burst of errors, or insert errors at 1E-3 to 1E-9 rates Error Monitoring Types BPV, Frame, CRC (ESF), Pattern Bit Errors PRBS True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1 Other Fixed 8-bit user word, live traffic (monitor only), Quasi-Random Signal Source, 3 in 24, 1 in 8, 2 in 8, 1 in 16, 55 octect (Daly), All ones (AIS), All zeroes, 1100 pattern, alternating 10 pattern Performance Data Alarms and Errors Alarm history, error counts, and error ratios Alarm seconds, error-free seconds, severely errored seconds, percent errored seconds	Signal Rates	DS1	1.544 MHz	
Receive Auto equalization, peak level detect, frequency measurement Connectors 100 0hm balanced Bantam EPX100 Clock Module BITS input, external input, internal As Received Recovered clock from receiver port Internal On-board oscillator (+/- 20 ppm) Payload Mappings Framed Extended Superframe (ESF), Superframe (SF), SLC-96 Channelized (with or without Robbed Bit Signalling), unchannalized. Unframed LOS, 00F, AIS, Yellow, LPS Alarm Monitoring LOS, 00F, AIS, Yellow, LPS, Excessive Zeroes Error Insertion Types BPV, Frame, CRC (ESF), Pattern Bit Errors Rates Insert a single error or a burst of errors, or insert errors at 1E-3 to 1E-9 rates Error Monitoring Types BPV, Frame, CRC (ESF), Pattern Bit Errors True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1 Other Fixed 8-bit user word, live traffic (monitor only), Quasi-Random Signal Source, 3 in 24, 1 in 8, 2 in 8, 1 in 16, 55 octect (Daly), All ones (AIS), All zeroes, 1100 pattern, alternating 10 pattern Performance Data Alarms and Errors Alarm history, error counts, and error ratios Alarm seconds, error seconds, error-free seconds, severely errored seconds, percent errored seconds	Interface	Line Codes	AMI, B8ZS	
Timing References EPX100 Clock Module BITS input, external input, internal As Received Recovered clock from receiver port Internal On-board oscillator (+/- 20 ppm) Signalling (ESF Data Link, Inband), loopback codes Framed Extended Superframe (ESF), Superframe (SF), SLC-96 Channelized (with or without Robbed Bit Signalling), unchannalized. Unframed LOS, OOF, AIS, Yellow, LPS Alarm Monitoring Error Insertion Types BPV, Frame, CRC (ESF), Pattern Bit Errors Rates Insert a single error or a burst of errors, or insert errors at 1E-3 to 1E-9 rates Error Monitoring Data Patterns PRBS True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1 Other Fixed 8-bit user word, live traffic (monitor only), Quasi-Random Signal Source, 3 in 24, 1 in 8, 2 in 8, 1 in 16, 55 octect (Daly), All ones (AIS), All zeroes, 1100 pattern, alternating 10 pattern Performance Data Alarm seconds, error seconds, error-free seconds, severely errored seconds, percent errored seconds		Transmit	Selectable LBO	
Timing References EPX100 Clock Module Recovered clock from receiver port Internal On-board oscillator (+/- 20 ppm)		Receive	Auto equalization, peak level detect, frequency measurement	
As Received Internal On-board oscillator (+/- 20 ppm) Payload Mappings Signalling (ESF Data Link, Inband), loopback codes Framing Framed Extended Superframe (ESF), Superframe (SF), SLC-96 Channelized (with or without Robbed Bit Signalling), unchannalized. Unframed LOS, 00F, AIS, Yellow, LPS Alarm Monitoring LOS, 00F, AIS, Yellow, LPS, Excessive Zeroes Error Insertion Types BPV, Frame, CRC (ESF), Pattern Bit Errors Rates Insert a single error or a burst of errors, or insert errors at 1E-3 to 1E-9 rates Error Monitoring Types BPV, Frame, CRC (ESF), Pattern Bit Errors PRBS True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1 Other Fixed 8-bit user word, live traffic (monitor only), Quasi-Random Signal Source, 3 in 24, 1 in 8, 2 in 8, 1 in 16, 55 octect (Daly), All ones (AIS), All zeroes, 1100 pattern, alternating 10 pattern Alarm sand Errors Alarm history, error counts, and error ratios Alarm seconds, error-free seconds, severely errored seconds, percent errored seconds		Connectors	100 Ohm balanced Bantam	
Payload Mappings Signalling (ESF Data Link, Inband), loopback codes	Timing References	EPX100 Clock Module	BITS input, external input, internal	
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Data Patterns PRBS True and inverted: 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1 Other Fixed 8-bit user word, live traffic (monitor only), Quasi-Random Signal Source, 3 in 24, 1 in 8, 2 in 8, 1 in 16, 55 octect (Daly), All ones (AIS), All zeroes, 1100 pattern, alternating 10 pattern Alarm seconds, error seconds, error ratios Alarm seconds, error seconds, error-free seconds, severely errored seconds, percent errored seconds		Rates	Insert a single error or a burst of errors, or insert errors at 1E-3 to 1E-9 rates	
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percent errored seconds	Performance Data	Alarms and Errors		
Compliance ANSI T1.102, CE Mark				
Operating Temperature 0° to 40° Celsius, non-condensing	<u> </u>			
Warranty and Service Standard 1 year parts and labor	Warranty and Service			
Extended Service Plan available		Extended	Service Pian available	

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