

## XG2138 E1/Datacom BER Tester

XG2138 E1/Datacom BER Tester is a small and handy Error testing device designed for the installation test, engineering check and acceptance, as well as daily maintenance of datacom device and wires. It mainly performs channel test, fault finding and signalling analysis, etc. It is the essential tool for the test of the datacom circuit.



### **Basic Functions**

#### ◆ **E1 testing**

- 75Ω and 120Ω line interfaces
- HDB3 and AMI line codes
- Out-of-service 2Mb/s, N<sub>i</sub>64kb/s BER testing
- In-service Error monitoring under HI-Z mode and through mode
- Timeslot activity monitoring
- E1 lever, Frequency, offset measurement
- Clock slip measurement
- Clock source: Internal, Interface
- Real-time transmit circuit open/short indication

#### ◆ **Datacom testing**

- Datacom (V.24, V.35, V.36, X.21, RS-449, RS-485, EIA-530 and EIA-530A) interfaces BER testing
- DTE or DCE emulation mode
- ASYNC BER testing with baud rate 50b/s~57.6Kb/s
- SYNC BER testing with data rate 1.2Kb/s~38.4Kb/s, N<sub>x</sub>64Kb/s (N=1~32)
- SYNC clock source and sense selection
- Data interface transmission rate test and offset calculation
- Handshaking signals control and monitoring



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◆ **Ethernet PING testing**

- PING test of fixed IP
- Stat. time delay
- Stat. rate of packet lose

◆ **Other functions**

- Error injection: Bit, rate, FAS, CRC
- LED alarm and status indication
- Real-time clock
- ITU-T G.821, G.826, and M.2100 performance analysis
- Test results uploaded, conserved and printed by TestManager software.

**Main Features**

- Handheld design, small in size, portable and easy-to-use
- High resolution backlit LCD
- Smart navigation mode displays
- Unique IP PING function, accord with the need of telecom data channel development and maintenance
- Self-check and keyboard testing function
- Extensive error and alarm generation, detection and indication
- Histograms analysis of alarm and error events
- Up to 99 days continuance test performance
- Save/Recall of up to multiple user-defined setups and sets of results
- Holding the data when power interruption, support the Call-Back function
- Built-in NiMH rechargeable batteries and smart charger circuit
- Output the test report in form of engineering report
- Upgradeable software via an integrated RS232C interface



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### Configurations

Item	Qty	Item	Qty
E1/Datacom BER Tester	1	NiMH rechargeable batteries (Embedded)	1
AC Power Adaptor	1	TestManagerPro Software (CD)	1
Ethernet Test Cable	1	Waterproof Package	1
75 ohm Unbalanced Test Cable	2	User's Manual	1
120 ohm Balanced Test Cable	1	Quality Certificate Card	1
Datacom Adapter Cable	4	Maintenance Card	1
USB Cable	1	Packing List	1
Datacom Interfaces Loop-back Connector	1		

### Specifications

Item		Description	
E1	Internal Clock	2048Kb/s; 10ppm	
	Line Interface	75Ω (Unbalanced), 120Ω (Balanced); High Input Impedance >2KΩ	
	Line Code	HDB3, AMI	
	Framing	Unframed, PCM30, PCM30CRC, PCM31, PCM31CRC	
	Level Measurement	-43dB~-2.5dB	
	Frequency Measurement	Accuracy: ±1Hz	
	Offset Measurement	Accuracy: ±1ppm Range: -999ppm~+999ppm	
DATACOM	Line Interfaces	V.24、V.35、V.36、X.21、RS-499、RS-485、EIA530、EIA530A	
	Bit rate	ASYNC	50、75、150、300、600bit/s, 1.2、2.4、4.8、 7.2、9.6、19.2、38.4、57.6Kb/s



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		SYNC	1.2、2.4、4.8、7.2、9.6、19.2、38.4Kb/s、 N;64Kb/s ( N=1~32 )
Ethernet Interface	Rate	10/100M compatible	
	Mode	Full-duplex	
	Physical Interface	RJ-45	
Test Patterns	PRBS	$2^{23}-1$ , $2^{15}-1$ , $2^{11}-1$ , $2^9-1$	
	Fixed Code	1111、0000、1010	
	16-BIT	User Programmable Word	
LED Alarm Indicators		Signal Loss, AIS, Frame Loss, MFrame Loss, Pattern Loss, Remote Alarm, Error, Clock Slip, Octet Loss, Low Battery	
Error Injection		Type: BIT, FAS, CRC4, CODE, E-BIT Single, Fixed Rate : $10^{-2}$ , $10^{-3}$ , $10^{-4}$ , $10^{-5}$ , $10^{-6}$ , $10^{-7}$	
Performance Analysis		ITU-T G.821, G.826 and M.2100	
Serial Port		USB	
Rechargeable Batteries		3.7V;2 NiMH batteries 1000mAH, continuous working for 8 hours	
Recharge Time		Approx. 2 hours	
AC Power Adapter		DC12V/1.5A	
TestManagerPro		WIN98/ME/2000/XP	
Dimensions		230mm;72/116mm;46m m (L;W;H)	
Weight		Approx.500g	