

## DTA-BERT



### Overview

The DTA-BERT series analyzer is a compact, color-LCD, graphic-interface-user, sub-note sized E1 PCM measuring instrument designed for field use in analysis and maintenance of E1(2.048Mbps) lines. The DTA-BERT/C performs framed, unframed, signaling analysis, drop and insert N\*64Kbps, or n\*56Kbps data into any time slot. The DTA-BERT/C analyzer also provides a variety of E1 line statuses, transmission performance testing (BERT) and monitoring. On the E1 line, the DTA-BERT/C may be used as a generator or receiver.

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**Features**

- Loop Back Code Setting and Detection: IN Band, Out Band and ITU-T V.54 BERT Histogram Analysis
- DSO Control Loop Codes(optional):TIP,LSC,LBE,FEV
- Large LCD display:32 Characters \*8 Lines, Text/Graphic mode
- Print out via Parallel Printer port/Print out via RS-232 Series Port(option)
- Internal Memory storage of test result./Direct display on LCD screen
- Results Report
- Portable for field use
- Upgradeable for advanced features
- Rechargeable battery with battery low indicator

**Specifications**

MODEL	DTA-BERT/C	DTA-BERT/E1
<b>E1 Specifications:</b>		
<b>1. E1 Receiving Interface</b>		
Line code	HDB3/AMI	
Pulse characteristics	in conformity with ITU G.703	
Jitter tolerance	in conformity with ITU G.823	
Input port Type	Coaxial twin: BNC (non-balance)	
	Symmetrical twin: RJ45 (balance)	
Input mode		
Terminal mode	Coaxial Pair Impedance: 75ohm (unbalance)	
	Symmetrical Pair Impedance : 120ohm (balance)	
Bridging mode	Impedance: > 1000 ohm	
<b>2. E1 Transmission Interface</b>		
Line code	HDB3/AMI	

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## DTA-BERT - E1/Datacom Data transmission Analyser

Pulse characteristics	in conformity with ITU G.703
Pulse amplitude	nominal value of 2.37V for 75ohm of coaxial pair Nominal value of 3.00V for 120 ohm of symmetrical pair
Zero amplitude	$\pm 0.1$ V at max
Jitter tolerance	in conformity with ITU G.823
Output port model	
Coaxial Pair	BNC (non-balance)
Symmetrical Pair	RJ45 (balance)
Source of clock transmission	
Internal Timing	2.048 MHz $\pm$ 50ppm, $\pm$ 100ppm.
External Timing	take clock from external clock interface
Recovery Timing	take clock from receiving terminal
<b>3. E1 Frame Format</b>	
	PCM31
	PCM31+CRC
	PCM30
	PCM30+CRC
	Unframed
	Automatic detection
<b>Error Rate Test (BERT Test)</b>	
<b>1. BERT Pattern (Patterns)</b>	
	511, 2047, 2E15-1, 2E15-1 (reverse), 2E20-1, 2E20-1 (reverse), QRSS, 2E23-1, 2E23-1 (reverse), all 1, all 0, alternate, 1100, 3 IN 24, 1 IN 16, 1 IN 8, 1 IN 4, User Programmable, LIVE
<b>2. BERT Display Format</b>	
	Error counting
	Alarm counting
	ITU G.821
	ITU G.826
	M.2100
	Histogram
<b>3. BERT Transmission Error Rate</b>	
	Force Single Error
	Force $10^{-3} \sim 10^{-7}$ Error Rate
<b>Quality Analysis</b>	
	Receiving seconds
	Error seconds
	Alarm seconds
	Error Free seconds

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	Error rate	
	Available seconds	
	Serious error seconds	
	G.821 error seconds	
	G.826 error seconds	
	Unavailable seconds	
<b>Data Port BEST Test</b>		
Mode	V.35, V.24/RS232, RS449, RS530, X.21	<i>NOT SUPPORT</i>
Data rate of the multiple of 64Kbps	N*64Kbps (N=1~36)	

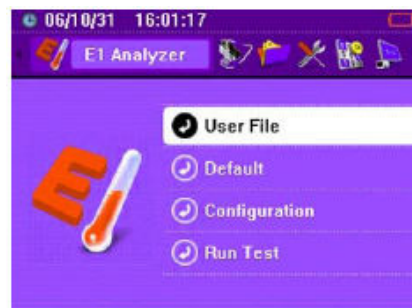
**General**

Power Supply	Li-battery / AC100~240V adapter to DC 9V/2A
Battery Life	≥4 hours
Humidity	Up to 90% RH non-condensing
Operation Temperature	0~50°C(32~125°F)
Store Temperature	-20~70°C(12~145°F)
Weight	1.6Kg
Dimension	220(W)*275(H)*65(D)mm

**Functional**

- E1 BERT Analysis: E1 frame, code.
- Supports CRC, and BPV performance analysis and generator.
- Alarm Setting: Manual or automatic alarm setting.
- Signal Result: E1 PCM frequency analysis.
- Signaling Setting: ABCD bit setting.
- Signaling Display: Display all channels of ABCD bits.
- Remote Control: Remote controlled by PC terminal or modem.
- Examine Analysis: Off-line analysis of BERT performance.
- User Programmable Pattern Setting: There are three 32 bit programmable patterns, which can be inserted onto the E1 line and drop for analysis.
- Timeslot Setting: Available, bypassed, or idle timeslot, Drop and Insert N\*64k data onto E1 line.
- Timeslot Mapping Data: Analyze any channel data of two frames.

- SLIP Measure: Uncontrolled, Controlled, Frame, and Timing SLIP measurement.
- File Management: Ten configurations and result memory locations can be stored /recalled by user.
- Round Trip Delay Measurement (Resolution is up to: 0.1ms).

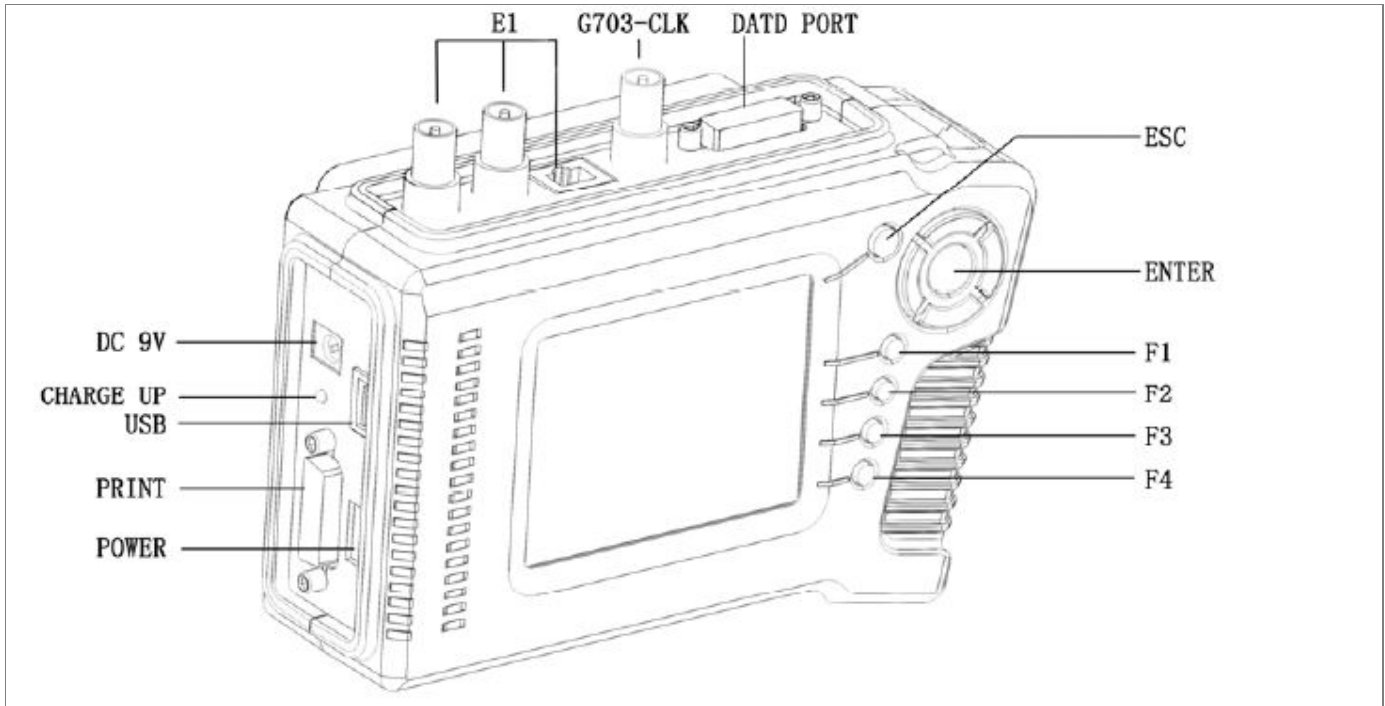


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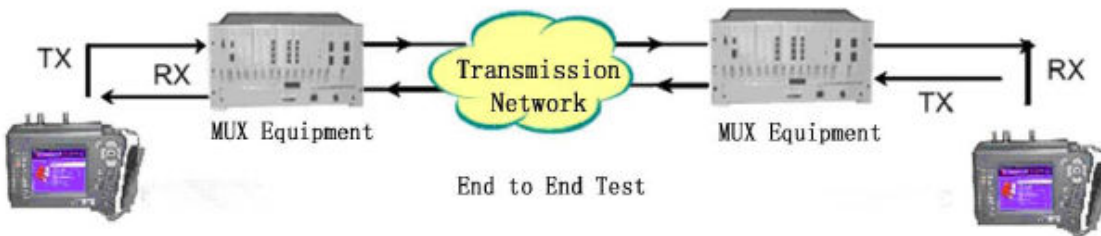
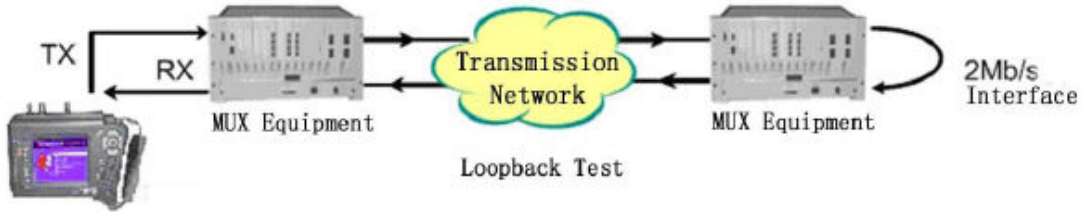
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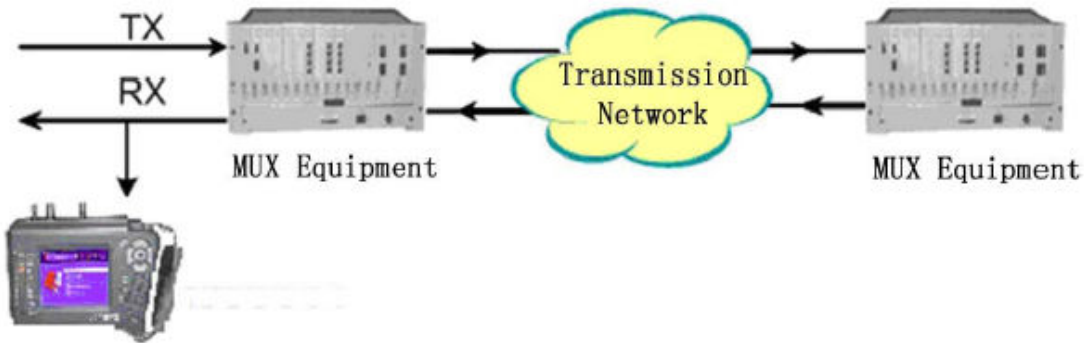


**Application**

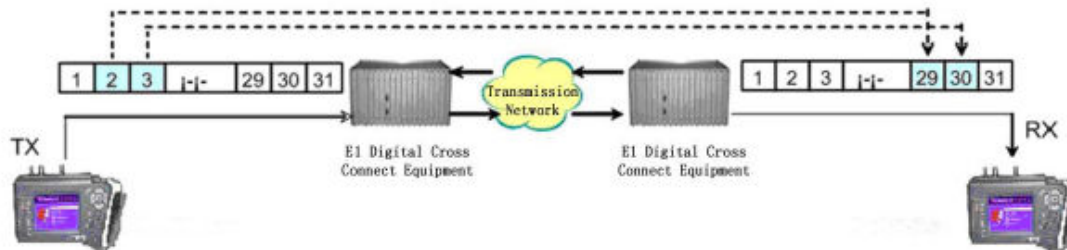
1、 OOS Test



2、 ISM Test



3、 N\*64Kbps Test

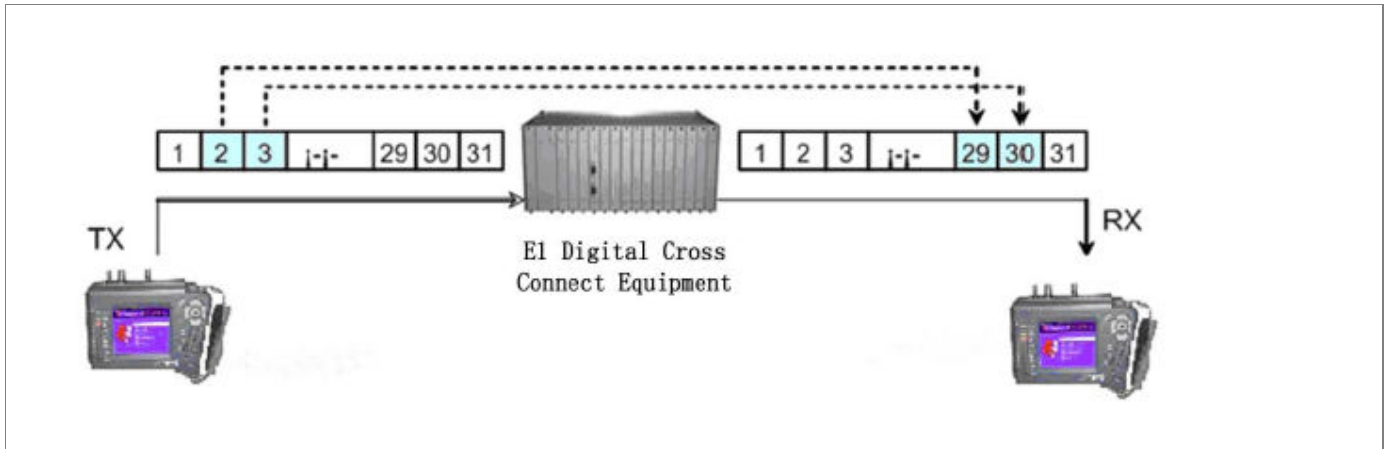


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## Configuration

### DTA-BERT/C Configuration

Ref	Item	Product name	Qty
1	Main machine	2M meter (including 7.5V Li-battery)	1
		Instrument handle tape	1
2	Standard parts	Data port cable DB26/V35M/V35F (1M)	1
3		Data port cable DB26/DB25M/DB25F (1M)	1
4		USB interface cable (straight-through cable)	1
5		BNC cable (1M)	2
6		Print cable DB15C36M-Printer	1
7		220V-9V/2A power adapter	1
8		Operating manual	1
9		Pack	1
10		External packing carton	1
11		Optional parts	Data port cable DB26/DB37M/DB37F (1M)
12	Data port cable DB26/DB15M/DB15F (1M)		1

### DTA-BERT/E1 Configuration

Ref	Item	Product name	Qty
1	Main machine	2M meter (including 7.5V Li-battery)	1
		Instrument handle tape	1
2	Standard parts	USB interface cable (straight-through cable)	1
3		BNC cable (1M)	2
4		Print cable DB15C36M-Printer	1
5		220V-9V/2A power adapter	1
6		Operating manual	1
7		Pack	1
8		External packing carton	1

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