

E1 / Datacom BER Tester with Color LCD

HCT-BERT/C

The HCT-BERT/C tester is a compact, color-LCD, graphic-user-interface, single hand E1 Bit error rate tester designed for field use in analysis and maintenance of data communications (V.35, RS530, X.21, RS232) and E1 (2.048Mbps) lines. The HCT-BERT/C performs framed, unframed drop and insert Nx64Kbps, or nx56Kbps data into any time slot. The HCT-BERT/C tester also provides a variety of E1 line statuses, transmission performance testing (BERT) and monitoring. On the E1 line, the HCT-BERT/C may be used as a generator or receiver.

Features

- Color LCD display graphic mode
- USB port for remote control
- Results Report
- Support G.821/826, M.2100 BERT analysis
- Sa bits setup and monitor
- Internal Memory storage of test result; Direct display on LCD screen
- Print out via Parallel Printer port
- Portable for field use
- Upgradeable for advanced features
- Rechargeable battery with battery low indicator
- Supports CRV & BPV performance analysis
- Datacom BERT analysis available for V.35, RS-530, X.21 and RS-449



Specifications

E1 interface

- 1). E1 Receiving Interface
 - Line code: HDB3/AMI • Pulse feature: ITU G.703
 - Dithering tolerance: ITU G.823
 - Input port: BNC (non-balance), RJ45 (balance)
 - Input mode: Impedance: 75ohm (unbalance), 120ohm (balance)
 - Bridging mode: Impedance > 1000 ohm
- 2). E1 Transmission Interface
 - Line code: HDB3/AMI • Pulse feature: ITU G.703
 - Pulse amplitude: Nominal 2.37V for BNC 75 ohm
Nominal 3.00V for RJ45 120 ohm
 - Zero amplitude: 0.1 V at max
 - Dithering tolerance: ITU G.823
 - Output port model: BNC (non-balance), RJ45 (balance)
 - Source of clock transmission:
Internal clock: 2.048 MHz 50ppm, 100ppm.
External clock: take clock from external clock interface
Resume clock: take clock from receiving terminal

Error Rate Test (BERT Test)

- 3). E1 Frame Format
 - PCM31, PCM31+CRC, PCM30, PCM30+CRC
 - Non-framing mode, Automatic detection
- 1). BERT Pattern (Patterns)
 - 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 programming 1/2/3
- 2). BERT Display Format
 - Error counting, Alarm counting, ITU G.821, ITU G.826
 - M.2100, Histogram
- 3). BERT Transmission Error Rate
 - Insert one error compulsorily
 - Apply an error rate of 10-3-10-7 compulsorily
- 4). Quality Analysis:
 - Receiving seconds, Error seconds, Alarm seconds
 - Free-of-error seconds, Error rate, Valid seconds
 - Serious error seconds, G.821 error seconds
 - G.826 error seconds, Invalid seconds
- 5). Data Port BEST Test
 - Data rate of the multiple of 64Kbps:
 $N \times 64\text{Kbps}$ ($N=1 \sim 36$)

Other Functions

- 1). Color Display Screen: Character/graphic mode
- 2). Test Results Report
 - 100 pieces of test results at max available in storage
 - Direct display on LCD screen
 - Print via printer port available

Indications

LEDs (DTE, DCE, DATA PORT, TD, RD, DCD, RTS, CTS, DTR, DSR, TC, RC XTC)
 AC230V adapter to DC 9V 2A
 Dimension 134 x 179 x 68mm (W x D x H)
 Weight 0.8kg
 Temperature 0°C ~ 50°C (Operating), -10°C ~ 70°C (Storage)
 Humidity 10 ~ 90% non-condensing
 MTBF 35,000 hrs



Ordering Information

Model Name	Description
HCT-BERT/C	E1 / Datacom analyzer