



## FEATURES

- 2048 kbit/s framed / unframed transmitter and receiver with through mode capability
- Codirectional (G.703) interface
- 2048 kbit/s slip measurement
- Interface parameters to ITU-T Rec. G.703
- Graphical displaying of signal pulse shape
- Jitter, jitter tolerance and transfer characteristic measurement
- PCM30, PCM30CRC, PCM31, PCM31CRC frame analysis
- nx64 kbit/s testing
- Line signal frequency measurement
- Mux / Demux measurements
- BER test to ITU-T Rec. G.821, G.826, M.2110, M2120
- CAS status analysis
- Analysis of CAS (R1.5, R2) systems
- EDSS1, V5.1/V5.2, QSIG, SS7 protocols
- Auto-configuration function
- PC software for analysis of signalling data and control
- Storage of set-ups and results
- Voice channels monitoring through built in speaker
- External clock input
- Selectable English or Russian languages
- LED indicators showing status of line signal
- Optional data communication unit
  - V.24, V.35, V.11 interfaces
  - DTE or DCE emulation
  - Bit and Byte oriented synchronous or asynchronous modes
  - Up to 10 Mbit/s bit rate

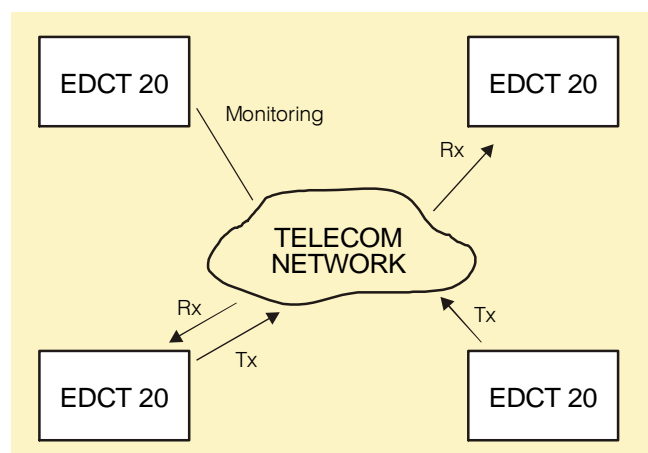
## APPLICATIONS

The **Digital Line Analyser EDCT 20** is a hand-held, battery operated, multi-function measuring instrument for in or out-of-service bit error and signal measurements. EDCT 20 can work in both unframed and framed modes for end-to-end and loopback testing of digital channels.

It offers features such as: timeslot monitoring; timeslot access; set-ups and result storages.

With the installation of the optional data communication unit, EDCT 20 is able to verify the interfaces (V.24, V.35 and V.11) between the DTE (Data Terminal Equipment) and the DCE (Data Communication Equipment), both in synchronous and asynchronous systems.

Results can be stored in it's non-volatile memory or logged on PC via USB.



## SPECIFICATIONS

## Transmitter (Tx)

Bit rate .....	2048 kbit/s
Interface parameters.....	ITU-T Rec. G.703
Tested channels.....	n x 64 kbit/s
Test patterns.....	normal or inverted PRBS 6, PRBS 9, PRBS 11, PRBS 15, user defined pattern (8 bit word)
Framing.....	PCM30, PCM30CRC, PCM31, PCM31CRC with signaling and overhead bits setup, unframed
Line code.....	HDB3 or AMI
Error addition	bit, frame, alarm generation
Output	
Unbalanced .....	75 $\Omega$ , BNC
Balanced.....	120 $\Omega$ , RJ 45

## Receiver (Rx)

Bit rate .....	2048 kbit/s
Interface parameters.....	ITU-T Rec. G.703
Tested channels.....	nx64 kbit/s
Test patterns.....	normal or inverted PRBS 6, PRBS 9, PRBS 11, PRBS 15, user defined pattern (8 bit word)
Framing.....	PCM30, PCM30CRC, PCM31, PCM31CRC, unframed
Line code.....	HDB3 or AMI
Measurements .....	bit errors, code errors, frame errors, CRC errors, REBEs (E-bit), timeslot monitor, CAS status monitor, VF level, frequency, line signal frequency
Alarm detection .....	indicated by LEDs: signal loss, frame and multi-frame loss, pattern loss, AIS,
Error analysis.....	G.821, G.826, M2100
Input	
Unbalanced .....	75 $\Omega$ or >2 k $\Omega$ , BNC
Balanced.....	120 $\Omega$ or >2 k $\Omega$ , RJ 45

## Codirectional interface

Parameters.....	ITU-T Rec. G.703
Connector .....	RJ 45

## Jitter measurement

Bit rate .....	2048 kbit/s $\pm$ 50ppm
Jitter measurement.....	ITU-T Rec.O.171
Jitter generator .....	5 Hz to 100 kHz
Test patterns .....	PRBS 9, PRBS 11, PRBS 15

## Pulse shape measurement

Bit rate .....	2048 kbit/s $\pm$ 50ppm
Pulse shape test .....	ITU-T Rec.G.703
Line code .....	HDB3 or AMI

## CLK

Input.....	ITU-T Rec.G.703, RJ 11
------------	------------------------

## General specification

Power supply	
Internal rechargeable battery pack	
Operation time .....	approx. 8 hours
External charger .....	mains adapter
Charging time .....	less than 3 hours
Display....	320x240 dot graphic LCD with backlight
Serial interface.....	USB 1.1
Ambient temperature range	
Operating .....	0 to +50°C
Storage and transport .....	-20 to +70°C
Dimensions.....	224x160x44 mm with data communication unit.... 224x160x76 mm
Weight (including battery pack).....	approx. 1.5 kg with data communication unit..... approx. 1.9 kg

## Optional data communication unit (built-in)

Interfaces	
V.24	
Bit rate .....	50 bit/s to 230 kbit/s, with resolution 1 bit/s
V.11, V.35	
Bit rate .....	50 bit/s to 10 Mbit/s, with resolution 1 bit/s
Bit error ratio measurement	
Monitoring	
Transmitting measuring signal sequences	
Timing measurement	
Connectors	
V.24 DCE .....	25 pin D-sub socket
V.11 DCE .....	37 pin D-sub socket
V.35 DCE .....	34 pin socket

## Ordering information

**DIGITAL LINE ANALYSER EDCT 20**.....381-000-000

## Including:

- Operating manual
- Mains adapter
- 2 balanced measuring cables  
(RJ 45 / bananas)
- 2 coaxial measuring cables
- Carrying case
- Demo program

## Options:

- SS7 protocol .....
- EDSS1, QSIG protocols .....
- V5.1/V5.2 protocols.....
- PC software for analysis of  
signalling data and control .....
- Analysis of CAS  
(R1.5, R2) systems .....
- Data communication unit .....
- Measuring cable set to  
V.24, V.11, X.21, V.35 interfaces.....
- Calibration Report.....