

ParaScope Lite+

Advanced Test Set for T1/E1 and Data Circuits

The ideal tool for service technicians who are responsible for installing, verifying, and troubleshooting T1, E1, and V-series data circuits.

- Large color backlit TFT display.
- T1: Dual interface supports ESF, SF, unframed
- E1: Dual interface supports PCM30, PCM31, PCM30/CRC PCM31/CRC, G.703 2048kbit/s
- Unframed E1: G.703 2048 kbit/s, G.703 64 kbit/s
- E1 Signal pulse mask
- THROUGH-mode testing (transparent and overwrite)
- Bit Error Testing
- Slip code test
- ITU-T G.821, G.826 and M2100 Analysis
- Histogram Analysis
- Error Injection
- Jitter Analysis
- Frequency Offset Measurements
- CAS, ABCD Monitoring
- V.24/RS232, V.35, V.36/RS449, x.21, EIA 530/530A, RS485/RS422, DTE/DCE mode
- Alarm Monitoring and Generation
- Framing Bits and Timeslot Monitoring Nx64 kbit/s, Nx56 kbit/s
- Remote Operation via Ethernet connection
- PING test
- Ethernet Connectivity test
- Audio testing
- Store more than 10,000 results
- Operate for up to 8 hours



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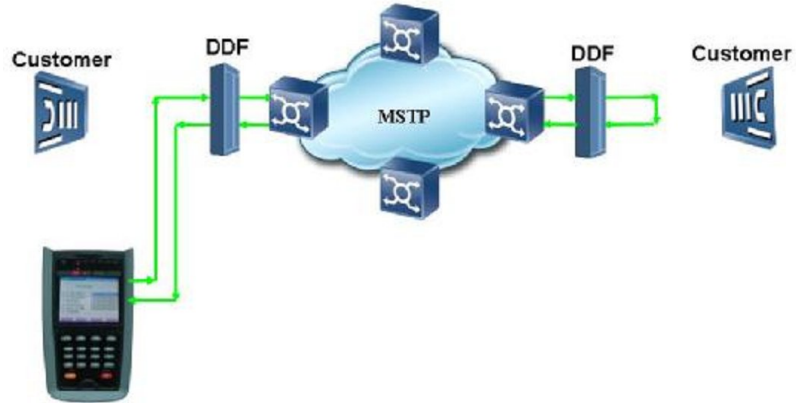
www.fetest.com

Functions Comparison Chart

	ParaScope Lite+-A	ParaScope Lite+-B	ParaScope Lite+-C	ParaScope Lite+-D
Color TFT LCD	•	•	•	•
Dual-line T1/E1 Interface test	•	•	•	•
G.703 64K Interface test		•	•	•
V.24/V.25/V.36/X.21/EIA 503 Inter- face test		•	•	•
Off-line test	•	•	•	•
On-line test	•	•	•	•
ITU-T G.821/G.826/M2100	•	•	•	•
Error Injection	•	•	•	•
Alarm Injection	•	•	•	•
Error Injection	•	•	•	•
IP PING test	•	•	•	•
Loop Delay test	•	•	•	•
APS test	•	•	•	•
Self-test	•	•	•	•
Remote Control	•	•	•	•
On-line Software Upgrade	•	•	•	•
2M Audio Test			•	•
2M Pulse Mask test			•	•
2M Clock Jitter test				future

Applications

Off-line Loop-back Test

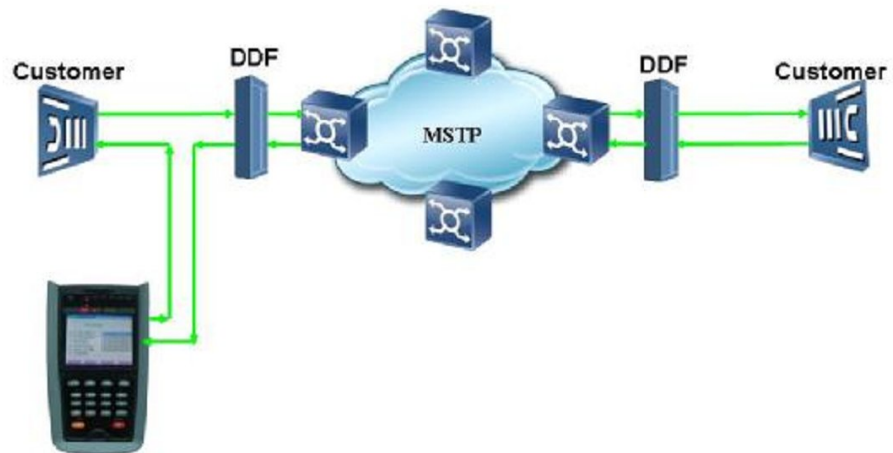


On-line Test

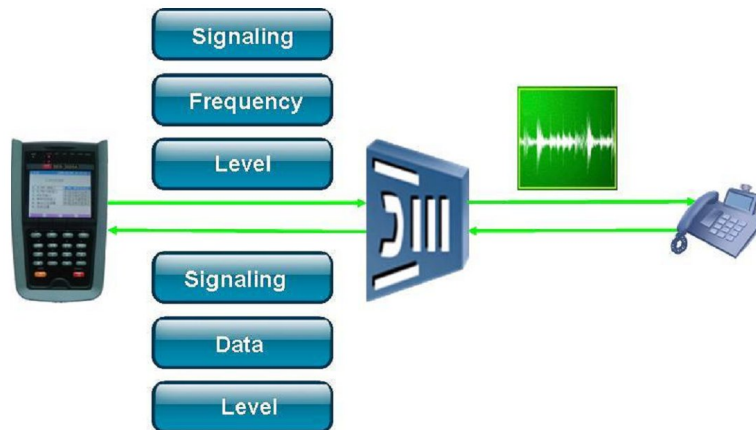


Applications (cont)

ThroughTest

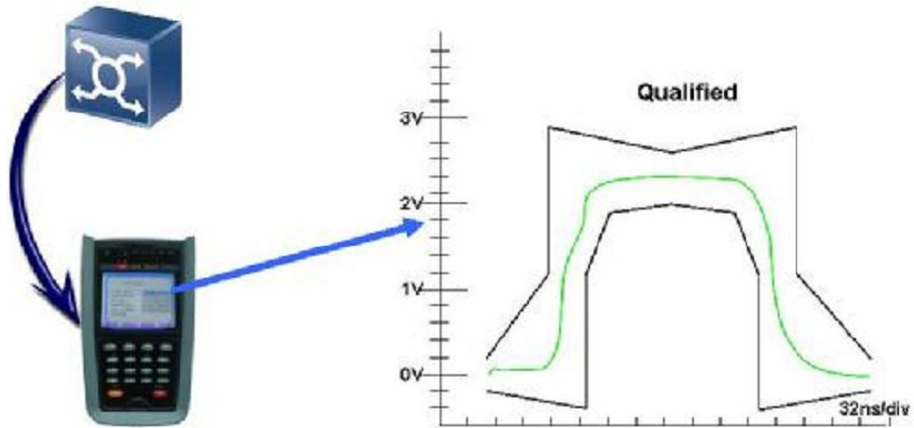


Audio Test



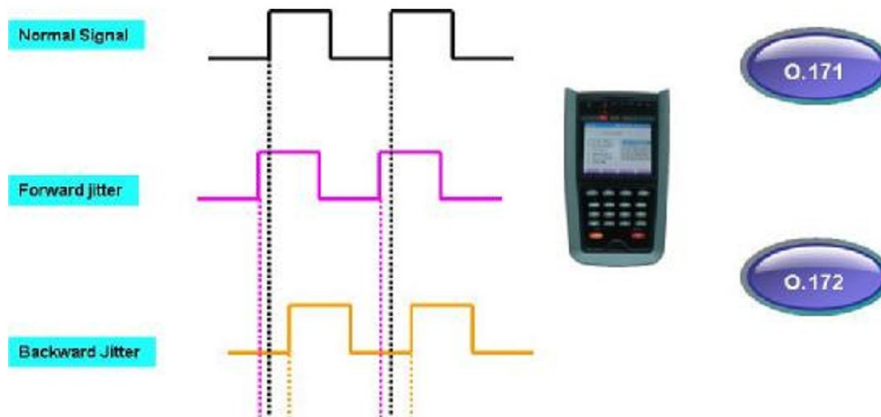
Applications (cont)

E1 Signal Template

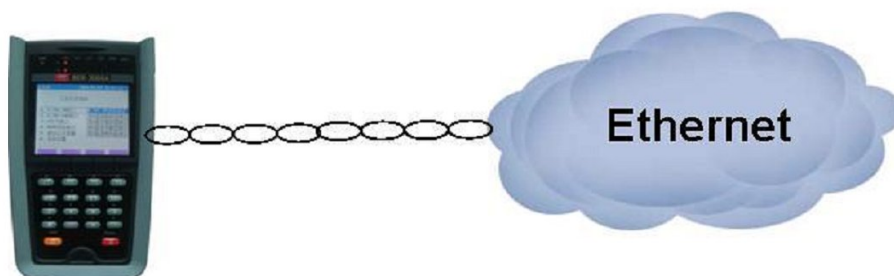


Jitter Test

Jitter Test

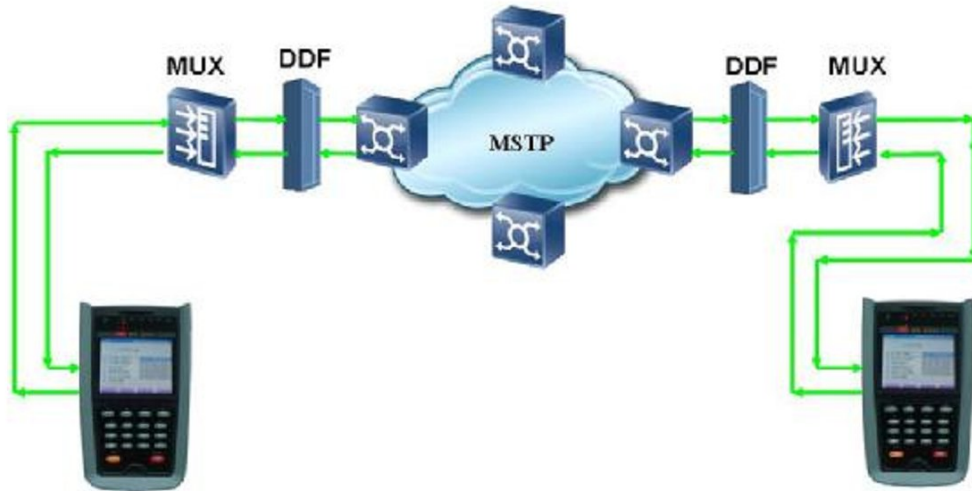


Ping Test

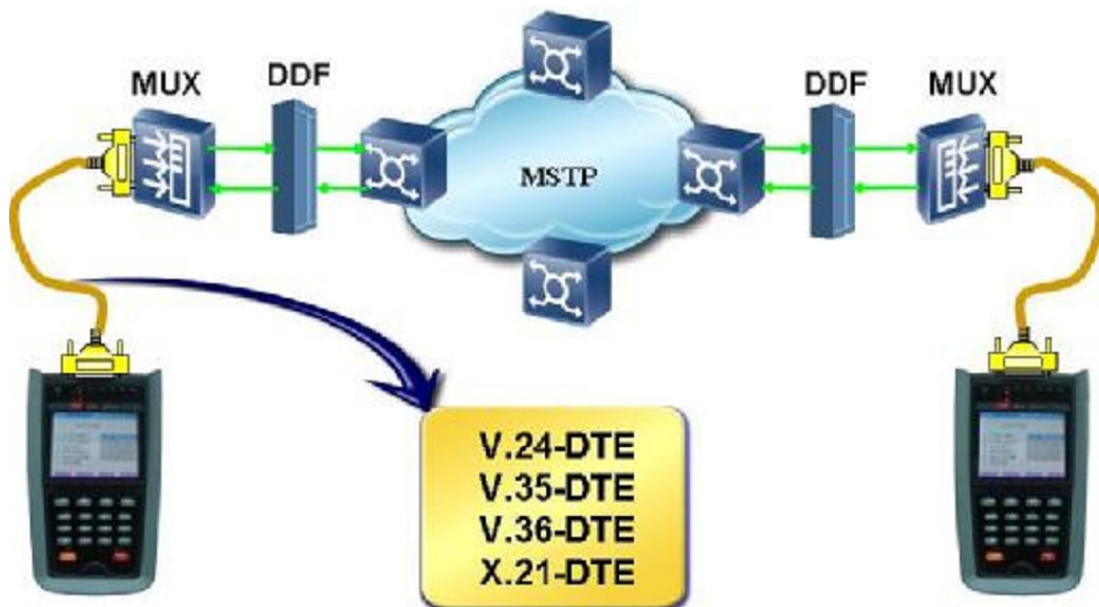


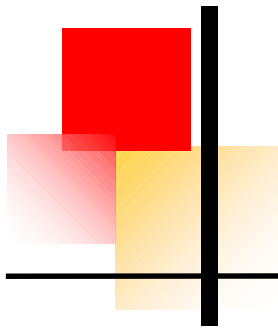
Applications (cont)

G.703 64Kbps Test



V-series Interface Test





ParaScope Lite+

General Specifications

LCD: 4" TFT 320x240 color backlit display
Batteries, rechargeable: Li-battery (8.4V/1200mAh)
Operating time (fully-charges batteries): About 8 hours
Charging time: About 4 hours
External supply: 8.4V DC adaptor
Internal NVRAM: 2Mbit
Storage: 10,000 results
Remote interface: RJ-45 Ethernet
Temperature range:
Operating: -10°C to +50°C / 14°F to +122°F
Storage: -20°C to 70°C / -4°F to +158°F

Dimensions: HxDxW: 7.4" x 4.25" x 1.96"/190 x 108 x 50(mm)
Weight: 2.6lb / 1.2kg

E1 Dual Interface

Max bit rate: 2048kbit/s
Internal clock: 2048KHz \pm 10ppm
Line code: HDB3 or AMI
G.703 jitter, tolerance and transfer: ITU-T Rec. G.823
Test pattern: PRBS (n) n=6,9,11,15,20,23
Error injection: Single, Rate: 1×10^{-n} n=3,4,5,6,7
Framed/Unframed, PCM30, PCM31, (PCM30 CRC) (PCM31 CRC)
Connectors:
BNC nominal 75W unbalanced
RJ-48c nominal 120W balanced
Bridged input: Unbalanced 2kW (nominal)
Mark level:
75 ohm unbalanced $2.37V \pm 10\%$
120 ohm balanced $3.0V \pm 10\%$

Level measurement accuracy:
-39dBm to -6dBm \pm 0.3dBm
-50dBm to -40dBm \pm 1.5dBm

Clock source: Internal or Recovered from Received Data
Monitoring and Display of: FAS, NFAS, MFAS, CRC4 MFAS

TI Dual Interface

Max bit rate: 1544bit/s
Internal clock: 1544kHz \pm 10ppm
Line clock: B8ZS or AMI
Test pattern: PRBS(n) n=6,9,11,15,20,23
Error injection: Single, Rate: 1×10^{-n} n=3,4,5,6,7
Framed/Unframed, D4, EFS
Connectors: RJ-48c nominal 120 ohm balanced
Bridged input: Unbalanced 2k ohm (nominal)
Mark Level: 120 ohm balanced $3.0V \pm 10\%$

G.703 64K

Rate: 64kbit/s
Internal clock: 64 kHz \pm 10ppm
Line code: AMI
Test pattern: PRBS (n) n=6,9,11,15,20,23
Error injection:
Single, Rate: 1×10^{-n} n=3,4,5,6,7
Connectors:
BNC nominal 75 ohm unbalanced
RJ-48c nominal 120 ohm balanced
Mark level: The pulse mask at the output will comply with ITU-T G.703 section 1.2.1.2 (Reference 3)
Clock source: Internal or Recovered from Received data

V SERIES

Rate: 50 Hz to 460.8 KHz
Line code: NRZ
Test pattern: PRBS (n) n=6,9,11,15,20,23
Error injection:
Single, Rate: 1×10^{-n} n=3,4,5,6,7
Interfaces: V.24/RS232, V.35, V.36/RS449, X.21, RS530/RS530A



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