



FEATURES

- TDR for coaxial cables
- Small size, suitable for using in the field.
- Widest measurement range (up to 20 km), for a hand-held cable-fault locator
- Long time test mode to locate intermittent faults
- Memory space for on-site waveform and settings storage
- Large and clear waveform display of full trace for accurate diagnosis, 192 x 192 LCD display with LED backlight
- Zoom function for detailed examination
- Easy to operate
- Built-in database for typical VOP values.
- Automatic VOP calculation provided
- System setup saving possibility
- Built-in help for typical waveforms
- Results can be logged on an external printer or PC via RS232C
- Internal rechargeable NiMH battery pack
- Battery level indication is provided
- Special software for performing the calibration of the instrument

APPLICATIONS

ETDR 10C has been designed for quick and accurate fault location of coaxial telecommunication cables. All faults can be clearly identified.

Long-time measurement is provided for finding intermittent faults. In long-time mode the measurements are repeatedly running for a desired time and the obtained waveforms are displayed altogether. If during the test period the features of the tested cable change due to a bad contact, the location of the fault will be easily and clearly identifiable.

The equipment is capable of recalling and displaying a stored waveform to compare with the currently obtained waveform.

There are dedicated keys for the most frequently used functions for fast and easy configuration of measurements.

The intelligent, microprocessor controlled automatic charger-discharger circuit of ETDR 10C offers regenerative charging method to extend the battery life.

SPECIFICATIONS

Measuring modes

Short Time Test	Location of cable faults
Long Time Test	Location of intermittent faults
Cable & Memory Cable – Memory	Comparison to memory

Nominal measuring ranges (VOP=0.666)

1. 100 m (328 ft)
 2. 250 m (820 ft)
 3. 500 m (1640 ft)
 4. 1000 m (3281 ft)
 5. 2500 m (8202 ft)
 6. 5000 m (16405 ft)
 7. 10000 m (32809 ft)
 8. 20000 m (65619 ft)
- (Maximum range depends on cable type and condition)

Evaluation of results

With cursor and marker in meter or ft

Zoom

Selectable 1 to 5

Resolution

with zoom 0.11% of range
without zoom 0.53% of range

Accuracy

Accuracy of fault location 0.4% of range

VoP range: 0.3 to 0.999 (30 to 99.9%)
 Resolution: 0.001 (0.1%)

Gain control

Range 0 to 66 dB
 Steps 6 dB/step
 Maximum sensitivity
 for full-scale deflection..... ±5 mV

Pulse characteristics

Width

Three selectable widths are provided for each range:

Range	Narrow	Medium	Wide
100 m	10 ns		
250 m	10 ns	25 ns	
500 m	25 ns	50 ns	100 ns
1000 m	100 ns	250 ns	500 ns
2500 m	250 ns	500 ns	1000 ns
5000 m	1000 ns	1000 ns	5000 ns
10000 m	1000 ns	2500 ns	5000 ns
20000 m	1000 ns	2500 ns	5000 ns

Amplitude into nominal load

Width=25 to 5000 ns: appr.4V
 Width=10 ns appr.2V

Line connection

Connectors 3 pieces of BNC sockets
 Impedance..... 50, 75, 93 Ohm
 Input protection..... 250V AC, 400V DC

Interface for PC or printer

Serial RS232C

Display

Display type 192x192 pixel LCD
 Backlight..... LED with 5min auto switch off

Memory locations

For waveforms 24
 For setups 10
 For user stored PVF values 10
 For typical PVF values 10

Power supply

From internal battery 8 hours operation
 after full charge
 without backlight
 From mains adapter 110/220V± 10%, 50/60 Hz
 When the mains adapter is
 connected the battery
 is automatically charged

Battery management

The processor controlled battery manager provides
 Normal charging: appr.10 hours
 Fast charging: appr.3.5 hours
 Regenerating charging: appr.6 hours
 Battery level indication: in % form
 In case of battery supply: 10 minute power down

Ambient temperature range

Operating -10 to +50°C
 Storage and transport -20 to +70°C

Dimensions and weight

Dimensions 200 x 100 x 40 mm
 Weight 0.8 kg

Calibration

Calibration period: 24 months
 Self-calibration before test: provided

Ordering information

CABLE FAULT LOCATOR

ETDR 10C 407-000-000

Including:

- Operating Manual
- Mains adapter
- 3 coaxial measuring cables
- Serial RS 232 cable
- Carrying case
- Shoulder bag

Options:

- PRINTER EPR 42S 318-000-000
- PC software for data-transfer SW407-000-000