

# Model 1270A

## Metallic Time Domain Reflectometer Cable Fault Locator



The Model 1270A offers some key benefits and features:

- ◆ **Direct Connections from both Coax and Twisted Pair** - Superior fault location in a variety of industries and applications. The 1270A will directly test coaxial cable and twisted pair cable by using front panel connections.
- ◆ **Range Plus** - Two button operation that allows the operator to quickly scan the cable under test while automatically stepping through a specific pulse width, vertical gain, and cable length.
- ◆ **2-Line Input** - Connect two twisted pair cables simultaneously for comparison.
- ◆ **Sub-nanosecond Pulse Width** - Pinpoint minor faults which interrupt digital services and cause signal loss, ingress and egress.
- ◆ **Intermittent Fault Detection (IFD)** - Monitor and locate hard-to-find intermittent faults using the IFD mode.
- ◆ **Dual Independent Cursors** - Measure between any two points on the waveform.
- ◆ **Super-Store Waveform Data Storage** - Helps reduce downtime in a system. Simply connect the TDR, press "store", and have the system back up and running within minutes. Analyze the waveform later.
- ◆ **Waveview Software** - Upload waveforms to your computer. Document before accepting new plant, save money when comparing replacement versus repair cost.
- ◆ **Rugged, Waterproof Packaging** - Helps to keep the 1270A on the job, regardless of location or climate condition.
- ◆ **Easy-to-use** - Logical, step-by-step testing for fault location and diagnosis. Easy-to-use by all levels of expertise.

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**Riser Bond**

# Model 1270A

## Product Specifications

### Physical Dimensions:

Height: 9.75 inches (247.6 mm)  
Width: 10.5 inches (267 mm)  
Depth: 5 inches (127 mm)  
Weight: 6 pounds (2.7 kg)

**Power Battery:** Internal, rechargeable, 7.2V  
Nickel metal hydride

### Charging Source:

External 12 VAC transformer, 1,3 A

### Operating Time:

Greater than 6 hours, continuous  
without backlight

### Environmental:

**Oper. Temp:** 0°C(+32°F) to +50°C(+122°F)

**Typical Temp:** -15°C(+5°F) to +60°C(+140°F)

**Storage Temp:** -20°C(-4°F) to +60°C(+140°F)

**Humidity:** 95% maximum relative humidity,  
non-condensing

### Display:

320 x 240 dot matrix liquid crystal display  
(LCD) with cathode fluorescent (CFL)  
backlighting

### Maximum Ranges:

63,700 ft. (19,400 m) at .990 VOP  
38,600 ft. (11,700 m) at .600 VOP  
Range varies with VOP. Maximum testable  
cable length varies with pulse width and  
cable type.

### Horizontal Resolution:

Coax: <2,000 ft. (610 m): <.05 ft.(.03 m) at .999 VOP  
<.02 ft.(.01 m) at .300 VOP

Line 1, Line 2:

<2,000 ft. (610m): <.25 ft.(.08 m) at .999 VOP  
<.08 ft.(.03 m) at .300 VOP

Any Input: <2,000 ft. (610 m): 1 ft. (.1 m) at any VOP

**Vertical Resolution:** 14 bits w/170 dots displayed

**Vertical Sensitivity:** Greater than 65 dB

**Output Balance:** Line 1, Line 2 only; variable

**Output Connector:** Front panel BNC and Banana  
jacks

### Velocity of Propagation:

Two user-selectable display formats.  
VOP(%) with 3 digit precision ranging  
from 30% to 99.9%; V/2 with 4 digit  
precision ranging from 45 to 148  
meters mode or from 148 to 487 in feet  
mode.

### Input Protection:

400 volts (AC+DC) from DC to 400Hz and  
decreases to 10 volts at 1 MHz.

### Distance Accuracy:

Accuracy will vary with cable VOP and  
cable type.

Coax: +/- .1 ft.(.03 m) plus +/- .01% of reading

Line 1, 2: +/- .5 ft.(.15 m) plus +/- .01% of reading

### Serial I/O Port:

RS-232

### Output Pulses:

Coax: sub-nanosecond, 2,25,100,500 nanoseconds  
Line 1, 2: 2,25,100,1000,6000 nanoseconds

**Auto dBRL:** 2 digit auto return loss calculation  
at cursor setting

**Auto Crosstalk:** Line 1, Line 2 only. 2 digit crosstalk  
calculation at cursor setting

**Waveform Storage:** 6,144 samples per waveform

Standard: 8 waveforms

Optional: 32 waveforms

### Automatic/Manual Noise Filter:

Standard: 8x averaging, 50/60 Hz, auto-filter

Optional: 4x,16x,32x,64x,128x averaging

### Standard Accessories:

Operator's manual, shoulder strap,  
battery charger and pack, probes &  
connectors, noise filters, Waveview for  
Windows software, clip-on accessory bag.

### Optional Accessories:

Additional waveform storage, multi-  
functional/multi-level noise filtering, strand  
hooks kit, 12V cigarette lighter charger,  
custom soft-side carry case, extended  
warranty.