



Metro.Cable a custom TDR

in Test we Trust

ALBEDO Metro.Cable is a customizable time-domain reflectometer (TDR) capable to characterize and locate faults in metallic cables of any nature including coaxial, twisted pair wire, or special cables used in Power Lines

Metro.Cable is a hand-held device designed for those companies working with transmission and power cables.

Transmission Cables



Metro.Cable can measure cable length, distance to faults, for coaxial, twisted pairs that are being used in Ethernet installations using RJ45 twisted pairs and E1, TV or any other installations using BCN.

Special Power cables



In order to satisfy the necessity of TDR in special cables made of two or any number of conductors, ALBEDO has developed a technology consisting in two adapters the Near-end adapter and the Far-end Active Loop adapter.

Near-end adapter

Near-end adapter is a switching matrix that allow the selection of any pair of conductors to execute the TDR test.

Far-end Active Loop adapter

Far-end adapter communicated with an independent media with the Metro. Cable board can open/close any two circuits, generate a tone or a special impedance.

"Any cable can be verified including customer designed cables and avionic circuits

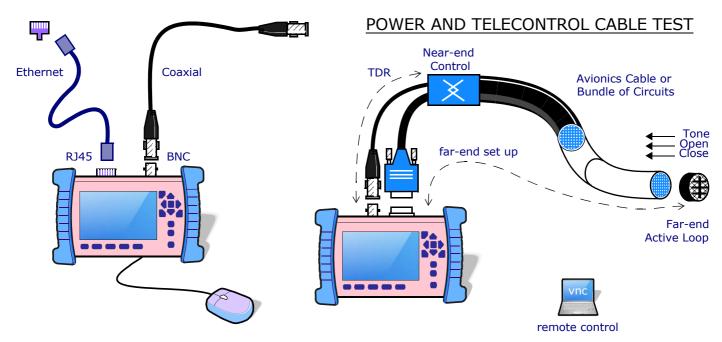
Avionics

Metro. Cable is used on aviation wiring for both preventative maintenance and fault location because time domain reflectometry has the advantage of precisely locating the fault location within thousands of miles of aviation wiring.

Metro.Cable has the advantage to define new cables by means of near end and far end adapters built specifically for each type of cable.



TRANSMISSION CABLE TEST



Functional Specs

	TDR
Interfaces	BNC (coaxial) RJ45 (twisted pairs) Customer defined
Input Impedance	BNC 50 Ohm RJ45: 100 Ohm Customer cable: undefined
TDR	Stimulus: Impulse Amplitude: 3 V Impulse width: 100 ns Stimulus Repetition Rate: 300 KHz Step Resolution in free space: 100 mm
Functions	Opens, shorts, splitters, high resistance, bandwidth, impedance
Operation	Sequential test for each n pairs

	Features
Customizable	Type of cable from two to n conductors
Cable Fault	Customer cable wiremap RJ45 cable d > 100 m Coaxial cable d > 100 m
ESD protection	• BNC: IEC 61000-4-2* Level 4: ±12 kV • RJ45: 1500 Vrms / 0.5 mA / 60 s
Max Non-Destruct Voltage	• BNC: ±325 Vdc • RJ45: ±3000 Vdc
Max Input Pulse Voltage	• +5 Vp

(*)Standard test condition is IEC61000-4-2 level 4 test circuit with each (AOUT/BOUT) pin subjected to ±12 kV contact discharge for 1000 pulses. Discharges are timed at I second intervals and all 1000 strikes are completed in one continuous test run.

	Platform
Hand-held Instrument	• Touchscreen 480 x 272 TFT, Mouse, USB & Ethernet ports; 1.0 kg, 223 x 144 x 65mm; IP-54 • Soft LEDS All events at a glance • Rechargeable Batteries continuous working up to 12 hours continuous operation. Fast recharging time • AC Power Adapter Input: $100 \sim 240$ V AC, $50/60$ Hz • Operating Temperature 0° C $\sim 50^{\circ}$ C, Storage Temperature -20° C $\sim 70^{\circ}$ C, Humidity $5\% \sim 95\%$; IP rating 54 • SNMP, MIB and VNC remote control

