

TEKTRONIX

1503C

The Tektronix 1503C is a highly accurate, portable Metallic Time-Domain Reflectometer (TDR) designed for locating faults and structural anomalies in metallic cables. Featuring a durable field-ready chassis, the 1503C is optimized for testing coaxial, twisted-pair, and parallel cables over long ranges. With a dynamic horizontal testing range extending up to 50,000 feet (15,230 meters), the instrument uses a high-resolution dot-matrix liquid crystal display (LCD) to present detailed impedance signatures. It supports both AC power and a high-capacity internal lead-gel battery for flexible field operations. Optional expansion modules, such as a front-panel dot-matrix strip chart recorder, allow operators to easily record and document cable diagnostics in real time.

SPECIFICATIONS

General

Display	High-resolution dot-matrix liquid crystal display (LCD) with electroluminescent (EL) backlight
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Physical

Operating Temperature	-15°C to +55°C °C
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Signal and Pulse Characteristics

Pulse Widths	2 ns to 1000 ns
Pulse Shape	1/2 sine
Maximum Distance Range	50,000 ft (15,230 m)
Propagation Velocity (Vp) Range	0.300 to 0.999
Vp Setting Resolution	0.001

Receiver and Horizontal System

Horizontal Range	0 to 50,000 ft (0 to 10,000 m)
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Display and User Interface

Primary Distance Readout Units	Feet or Meters (selectable)
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Applications

Supported Cable Types	Coaxial, twisted pair, or parallel cable
Fault Detection Capabilities	Shorts, opens, defects in the shield, foreign substances (e.g. water), kinks

Connectivity, I/O, and Storage

Optional Printer	Dot matrix strip chart recorder (installs into front-panel Option Port)
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Power Supply and Battery System

Internal Battery Chemistry	Lead-gel
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Physical and Environmental

Storage Temperature Range	-62°C to +85°C
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Measurement Specifications

Maximum Input Protection	400 V (DC + peak AC)
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Power Requirements

AC Input Voltage Ranges	90 to 130 VAC, 180 to 250 VAC
AC Input Frequency Range	45 Hz to 440 Hz

Environmental & Compliance

Environmental Compliance	Designed to meet MIL-T-28800D, Class 3, Style C
Operating Altitude Limit	15,000 ft (4,572 m)
Non-Operating Altitude Limit	50,000 ft (15,240 m)

Inputs & Outputs

Front Panel Output Connector	BNC female
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Environmental

Environmental Compliance Standard	MIL-T-28800D, Type III, Class 3, Style C (drip-proof)
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TECHNOLOGY

Metallic Time Domain Reflectometer (TDR)

APPLICATIONS

Telecommunications, Datacom, and Metallic Cable Fault Diagnostics

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.