TelScout® TS200

Access Network Analyzer For Telephone Applications

TestWizard™ – True One-button Testing

Volt-Ohm Meter

Transmission Tests with xDSL, ISDN, and POTS Capability

Load Coil Counter

Longitudinal Balance

Open (Capacitance) Meter

Resistance Fault Locator

Full Function TDR with Automatic Multiple Event Marking

Flexible, Upgradeable Platform

Complete On-Line Help and Tutorials

Rugged Design – Survives 2 m drop

Automatic Hazardous Voltage Safety Warning

Extra Large, High-Contrast, Backlit Display

If your job is to analyze and troubleshoot the access network for analog or digital services, the Tektronix TelScout® TS200 is built for you. Designed specifically for telephone access network applications, including xDSL, ISDN, and POTS, the TelScout TS200 applies the newest technology to provide both ease-of-use and telephony performance that cannot be found in any other access network analyzer.

TestWizard™ Analysis

With the TelScout TS200, you'll spend less time operating the instrument, and more time analyzing and repairing faults. The TelScout TS200 can be configured to perform a variety of tests to meet your specific needs. The strength of the TelScout TS200 is its ability to perform logical test sequences that lead the operator toward potential troubleshooting solutions. With TestWizard™ analysis, this innovative solution is just a single button press away!

TelScout TS200 – Designed for Your Needs

With true multi-function test capability, the TelScout TS200 is designed for easy upgradeability to meet your future needs. You get all this flexibility and performance in one of the industryís most rugged access network packages. Come snow, rain, heat, and humidity, the TelScout TS200 keeps working, because you have to.

TelScout® TS200 Characteristics
xDSL/ISDN/POTS

AC Voltage –
Range: 0 to 300 V.
Resolution: 0.1 V.
Accuracy: ±(1% + 0.5 V).

DC Voltage –
Range: 0 to ±400 V.
Resolution: 0.1 V.
Accuracy: ±(1% + 0.5 V).

Loop Current –
Range: 0 to 300 mA.
Resolution: 0.1 mA.
Accuracy: ±1% @ 60 mA.

Resistance –
Range: 0 to 1 kΩ:
   Resolution: 0.1 Ω.
   Accuracy: ±(0.9% + 1.0 Ω + 1 count).
Range: 1 kΩ to 100 kΩ.
   Resolution: 10 Ω.
   Accuracy: ±0.9% + 1 count.
Range: 100 kΩ to 1 MΩ.
   Resolution: 100 Ω.
   Accuracy: ±1% + 1 count.
Range: 1 MΩ to 100 MΩ.
   Resolution: 100 kΩ.
   Accuracy: ±6% + 1 count.

Load Coil Counter – Range: 0 to 7 Load Coils.

Ringers –
Range: 0 to 5 REN.
Resolution: 0.1 REN.
Accuracy: ±0.5 REN (C4 type ringers).

Ohms/Distance Calculator –
Resistance Range: 0 to 9999 Ω.
Distance Range: 0 to 60 km (200 kft.).

Loss –
Frequency Range: 20 Hz to 200 kHz.
Frequency Resolution: 1 Hz.
Frequency Accuracy: ±2 Hz @ 0 dBm.
Level Range: −40 to +10 dBm.
Level Resolution: 0.1 dB.
Level Accuracy:
   300 Hz to 4.5 kHz: ±0.5 dB.
   40 kHz: ±2.0 dB.
   196 kHz: ±4.0 dB.
Z_{in}: 600 Ω (Z_{ref} = 135 Ω above 20 kHz).

Noise –
Range: 0 to 50 dBrnC (dBrnp).
Resolution: 0.1 dB.
Accuracy: ±2.0 dB + Filter Accuracy.
Z_{in}: 600 Ω.

Power Influence –
Range: 40 to 100 dBrnC (dBrnp).
Resolution: 0.1 dB.
Accuracy: ±2.0 dB + Filter Accuracy.

Slope –
Frequency Range: 20 Hz to 200 kHz.
Frequency Resolution: 1 Hz.
Frequency Accuracy: ±2 Hz at 0 dBm.
Level Range: −40 to +10 dBm.
Level Resolution: 0.1 dB.
Level Accuracy:
   300 Hz to 4.5 kHz: ±0.5 dB.
   40 kHz: ±2.0 dB.
   196 kHz: ±4.0 dB.

Tracing Tone (Continuous or Intermittent) –
Frequency: 577.5 Hz.
Level: −40 to +10 dBm.
Accuracy: ±1 Hz.

Preset Tones –
Frequency Range: 404 Hz, 577.5 Hz, 820 Hz, 1004 Hz, 1020 Hz, 2713 Hz, 2804 Hz, 5000 Hz, 28 kHz, 32 kHz, 40 kHz; plus 3-, 6-, and 10-step tone sequences.
Frequency Resolution: 1 Hz.
Frequency Accuracy: ± 2 Hz (20 Hz to 20 kHz).
Level Range: −40 to +10 dBm.
Level Resolution: 1 dB.
Level Accuracy: ±0.5 dB above −25 dBm.

User Defined Tones –
Frequency Range: 20 Hz to 65 kHz.
Frequency Resolution: 1 Hz.
Frequency Accuracy: ±2 Hz (20 Hz to 20 kHz).
Level Range: −40 to +10 dBm.
Level Resolution: 1 dB.
Level Accuracy: ±0.5 dB above −25 dBm.

Longitudinal Balance –
Range: 40 to 62 dB.
Resolution: 0.1 dB.
Accuracy: ±2 dB.

Dialer – DTMF or Pulse.

Open Meter –
Range: 0 to 300 m (1 kft.).
   Resolution: 0.5 m (1 ft.).
Range: 300 m to 60 km (1 kft. to 200 kft.).
   Resolution: 3 m (10 ft.).
   Accuracy: ±1% @ 3 km (10 kft.).

Capacitance –
Range: 10 pF to 10 nF.
   Resolution: 10 pF.
Range: 10 nF to 10 µF.
   Resolution: 10 nF.
   Accuracy: ±(1% + 50 pF + 1 count) up to 3.5 µF.

Resistance Fault Locator –
Fault Resistance Range: 0 to 40 MΩ.
Distance Range: 0 to 60 km (200 kft.).
RTF Range: 0 to 400 Ω.
   RTF Resolution: 0.01 Ω.
   RTF Accuracy: ±(0.9% ±1.0 Ω + 1 count).
RTF Range: 400 Ω to 4 kΩ.
   RTF Resolution: 0.1 Ω.
   RTF Accuracy: ± 0.9% + 1 count.
RTF Range: 4 kΩ to 40 kΩ.
   RTF Resolution: 1 Ω.
   RTF Accuracy: ±0.9% + 1 count.

TDR

Test Signal Output – 1/2 sine, 1.55 to 31 V_{p-p}.

Pulse Widths – 2, 10, 75, 340, 3400 ns.

Output Impedance – 105 Ω typical.

Maximum Range – 15,000 m (50,000 ft.), depending on cable type and condition.

Gain – 0 to 72 dB.

Input Protection – ±400 VDC + peak AC at power line frequencies, maximum duration up to 30 sec.

Waveform Storage – Up to 20 waveforms with notes.

Horizontal Design Accuracy – 0.1% ± 300 ps ± Vp uncertainty ± cursor resolution.

Cursor Resolution – 0.33% of selected range.

Display Ranges – 15 display ranges plus single-button zoom window. Ranges are user definable in manual mode.

Display Modes – Test, Splits (Crosstalk), Test/Reference, Test/Difference/Reference, Difference, Intermittent, Saved, Test/Saved, Test/Difference/Saved, Reference.

Event Marking – TestWizard automatic multiple event marking.

General Characteristics

ENVIRONMENTAL

Temperature –
Operating: –15°C to + 60°C.
Non-operating: –30°C to +65°C.
Performance Characteristics: 0°C to +45°C.

Humidity – 95% RH, non-condensing.

Shock – Survives drop of 2 m (6.6 ft.) to concrete in standard soft case.

STANDARDS COMPLIANCE

ISO9001.
CE.
UL 3111.1.
CAN/CSA-C22.2 #1010.1.
89/336/EEC.
73/23/EEC.
EN55011.

POWER

Mains Operation – Voltage Ranges: 100 V, 110 V, 230 V, 240 V with appropriate AC to DC adapter.

Battery Operation –
Operating Time: 8 hours at 50% duty cycle with internal NiMH battery.
Battery Saver: Selectable from 1 to 30 minutes or disabled.
Removable Battery Holder: Supports "AA" (LR6) alkaline batteries.

PHYSICAL

Dimensions	cm	in.
Height	22	8.5
Width	25	10
Depth	7	2.7

Weight	kg	lb.
Net	2.4	5.4

INTERFACES

Display – High resolution VGA, 640 x 480 pixels, 6.2-inch high contrast. Operator switchable backlight.

Serial Port – 9-pin D-type serial connector.

Speaker – In POTS only or combo configurations (Options 02 and 03).

WARRANTY

One year parts and labor.

Ordering Information

TelScout® TS200 Access Network Analyzer

Includes: Test Leads (012-1552-00), Soft Carrying Case (016-1690-00), U.S. AC Adapter/Charger (119-6031-00), U.S. Line Cord (161-0228-00), Vehicle DC Adapter (012-1553-00), Internal NiMH Battery (146-0126-00), Alkaline Battery Adapter (352-1071-00), User Manual (071-0069-00).

TS200 Functionality Options

(must choose one)

Option 01 – TDR capability.

Option 02 – xDSL/ISDN/POTS capability (includes Waist Strap, 346-0292-00).

Option 03 – TDR and xDSL/ISDN/POTS capability (includes Waist Strap, 346-0292-00).

International Power Cord Options

Option 1C – Universal Euro 220 V, 50 Hz (161-0066-09).

Option 2C – UK 240 V, 50 Hz (161-0066-10).

Option 3C – Australian 240 V, 50 Hz (161-0066-11).

Option 6C – Japan 110 V, 50 Hz (161-0288-00).

TS200 Recommended Accessories

Hard Travel Case – 016-1210-00.
Strand Hook – RFMSHA.
D-Ring Hook – 354-0745-00.
Waist Strap – 346-0202-00.
PC Software for TDR – MCTAP.
Serial Printer Cable, DB9-to-DB9 – 012-1379-00.
Serial Printer Cable, DB9-to-DB25 – 012-1313-00.
Serial to Parallel Adapter – 131-6004-00.
Coaxial Cable Adapter, 75 Ω Banana-to-Type F – 174-3525-00.
Service Manual – 071-0070-00.
Extra Battery Pack – 146-0126-00.

International Language Options

Standard – English.
Option L1 – French.
Option L3 – German.
Option L4 – Spanish.
Option L5 – Japanese.
Option L6 – Portuguese.
Option L7 – Chinese (Simplified).
Option LA – Australian.
Option LC – Czechoslovakian.
Option LD – Dutch.
Option LF – Finnish.

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