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Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

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Call TMG if you need to organise repair and/or calibrate your unit.

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DLS 90

Single Gauge Wireline Simulator

SPECIFICATIONS

The DLS 90 reproduces the characteristics of twisted PIC telephone cable for testing access products designed to operate on the local loop.

Description

Adjustable in 50 foot or 50 meter lengths, the DLS 90 is useful in determining the length at which transmission errors will occur.

Each DLS 90 can be ordered in one of three gauges; 24 or 26 AWG, or "0.4 mm PE". Adjustments for 24 and 26 AWG are in 50 foot increments, and for the 0.4 mm PE, adjustments are in 50 meter increments. Simulation is achieved using passive components (L, R, C) which allows for signals to be passed in both directions simultaneously, just like real cable. Since the DLS 90 can withstand 300 volts differentially from tip to ring without breakdown and can continuously pass 150 mA, sealing current, ring voltage and loop current (line power) can be applied.

The front panel of the unit has an LCD alpha-numeric display and push buttons for controlling the length of the cable simulated. Alternatively, the DLS 90 can be controlled using an IEEE 488 interface and a RS-232C (rear panel mounted).

The DLS 90 can be used to test a variety of 2 or 4 wire local loop products such as: ISDN U-interface devices, Digital Loop Carrier (DLC), Digital Subscriber Lines (DSL), High bit Rate Digital Subscriber Lines (HDSL), DDS products, Centrex Data Units, Digital Service Units (DSU), Asymmetrical Digital Subscriber Loop (ADSL), G.Lite, Switched 56 service units, wireline modems, wireline drivers, inverse multi-plexers and pair-gain systems.

All That You Need

Consider these DLS 90 benefits:

- The DLS 90 is adjustable in 50 foot lengths and can simulate up to 6,350 feet of cable (optionally up to 9,350 feet). The ETSI model is adjustable in 50 m lengths up to 3 km (optionally up to 6 km).
- Available in three wireline gauges; 24 or 26 AWG, or "0.4 mm PE".
- The DLS 90 can withstand ring voltage and loop current.
- Test 2 or 4 wire local loop products such as: ISDN U-interface devices, DLC, DSL, HDSL and DDS products. Excellent for ADSL and G.Lite applications.
- Control your unit manually or remotely via IEEE 488 and RS-232C with a PC.
- The DLS 90 offers up to 2 MHz of useable simulation bandwidth.



DLS 90 Single Gauge Wireline Simulator

Descriptions:

The DLS 90 is a two wire cable simulator. The user can select the simulated cable length using the keys on the front panel, or via one of the remote control interfaces (i.e. IEEE-488 or RS-232). For AWG gauges, the length can be varied from 0 to 6.35 kft in steps of 50 ft. With the extended wireline option, a maximum length of 9.35 kft can be achieved. The DLS 90 (0.4 mm PE version) simulates up to 3 km of cable and the maximum length can be varied in steps of 50 m.

Simulated Cable Type and Maximum Length:

The DLS 90 simulates one gauge of cable which may be 26, 24 AWG or 0.4 mm PE.

The gauge must be specified at the time of order.

The maximum length can be up to 9.35 kft for AWG units, and up to 3.0 km for 0.4 mm PE units.

Frequency Response:

DC to 1.5 MHz, smooth response to 2.0 MHz.

Accuracy:

± 0.5 dB up to 20 dB attenuation.

± 1 dB from 21 dB up to 35 dB attenuation.

± 2 dB up to 70 dB attenuation.

Delay:

From 20 kHz to 1 MHz, $\pm 10\%$.

Characteristic Impedance:

From 20 kHz to 999 kHz, $\pm 5\%$.

From 1 MHz to 1.5 MHz, $\pm 10\%$.

DC Characteristics:

Up to 300 VDC_{peak-to-peak} across tip & ring.

100 mA (150 mA peak).

IEEE 488 Remote Control:

The unit can be controlled via an IEEE 488 interface. The unit supports the following functions:

- Listener
- Talker
- Local Lockout
- Serial Poll
- Selective Device Reset
- Bus Reset
- Primary Addressing from 0 to 30

RS-232 Remote Control:

The unit can be controlled via an RS-232 serial interface. The unit supports the following functions:

Baud Rate:	300, 600, 1200, 2400, 4800, 9600, 19200, 38400.
Data Format:	E71, O71, E72, O72, N72, E81, O81, N81 and N82.
Where:	E = even parity. O = odd parity. N = no parity. ■ the second digit is the character size ■ the third digit is the number of stop bits
Flow Control:	None, CTS, TRS/CTS, Xon/Xoff, All.

Connections:

2 (one per terminal) 8 way RJ-45 connectors at the front and back. Also two 2 pole terminal strips and an extra set of RJ-45 connectors at the back. All connectors are in parallel.

Options:

- Rackmount kit
- IEEE-488 interface card

Electrical:

Rated Input Voltage:	100-240 VAC. (±10%).
Rated Frequency:	50-60 Hz.
Rated Power Consumption:	30 VA max.
Line Fuses:	Type "T" 0.25 A/250 V SLOW BLOW . (2 required, 5 mm x 20 mm).

Environmental:

Operating Temperature:	+10°C to +40°C. 50°F to 104°F.
Storage Temperature:	+10°C to +40°C. 50°F to 104°F.
Humidity:	90% (non-condensing) max.

Mechanical:

Weight:	4.5 kg. 10 lbs.
Dimensions:	42 mm x 429 mm x 366 mm. 1.65" x 16.9" x 14.4". (H x W x D).

Operating Conditions:

In order for the unit to operate correctly and safely, it must be adequately ventilated. The DLS 90 contains ventilation holes for cooling. Do not install the equipment in any location where the ventilation is blocked. For optimum performance, the equipment must be operated in a location that provides at least 10 mm of clearance from the ventilation holes. Blocking the air circulation around the equipment may cause the equipment to overheat, therefore compromising its reliability.



DLS Systems

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