

SUN

Sunset T10

The Sunrise Telecom Sunset T10 is a handheld T1 transmission test set designed for the installation, troubleshooting, and maintenance of T1 (DS1) circuits and services. Highly portable and rugged, it features a comprehensive suite of transmitter, receiver, and VF testing functions.

SPECIFICATIONS

General

Interfaces	Three Bantam jacks (Tx, Rx, Rx2), RS-232 serial interface
Display	8-line x 21-character backlit graphic LCD

Physical

Power Supply	Internal rechargeable battery pack or external AC power adapter/charger
Operating Temperature	0 to 50 °C
Dimensions (W×H×D)	100 x 195 x 45 mm
Weight	0.54 kg

Transmitter and Receiver Interfaces

Line Rate	1.544 Mbps
Line Coding Formats	AMI, B8ZS
Framing Formats	Unframed, SF (D4), ESF, SLC-96
Receiver Input Impedance Options	Terminate (100 Ω), Bridge (>1000 Ω), Monitor (100 Ω with 20 dB gain)
Line Build-Out (LBO)	0 dB, -7.5 dB, -15 dB, -22.5 dB
DSX-1 Equalization Range	0 to 133 ft, 133 to 266 ft, 266 to 399 ft, 399 to 533 ft, 533 to 655 ft
Frequency Offset Generation	Up to ±150 ppm

Testing and Measurement Capabilities

Bit Error Rate Testing (BERT) Patterns	QRSS, 511, 2047, 2 ¹⁵ -1, 2 ²⁰ -1, 2 ²³ -1, All Ones, All Zeros, 1:7, 2:8, 3 in 24, MIN/MAX, user-programmable
Error Insertion Types	Bit, BPV, Frame, CRC-6, Excessive Zeros
Error Insertion Rates	Single, Constant (10 ⁻³ to 10 ⁻⁷), Burst
Alarm Generation Types	AIS (Blue), Yellow (RAI), Idle
Alarm Detection Types	LOS, LOF, AIS, Yellow (RAI), Idle
Signal Level Measurement Range	+6 to -35 dBdsx
Frequency Measurement Accuracy	1,544,000 Hz with 1 Hz resolution
VF Channel Access	Single-channel drop and insert to VF port, speaker, or headphone
VF Level and Frequency Measurement	Level: +3 to -40 dBm; Frequency: 200 Hz to 4000 Hz
Round Trip Delay Measurement	Up to 2 seconds with 1 ms resolution
Fractional T1 Testing Capabilities	Nx56 kbps or Nx64 kbps (N=1 to 24) contiguous or non-contiguous
Loopback Codes and Control Protocols	CSU, NIU, HDSL, Westell, Teltrend, custom user programmable

System, UI and Connectivity

VF Talk/Listen	Built-in microphone, speaker, and headset jack
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Power and Battery

Battery Operating Lifetime	Up to 4 hours
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Physical and Environmental

Storage Temperature	-20°C to 70°C
Relative Humidity Range	5% to 90% non-condensing

Transmitter

Transmitter Clock Sources	Internal, Loop (from Rx1), External (from Rx2)
Internal Clock Accuracy	±5 ppm

Connectivity

Serial Interface Port	8-pin mini-DIN (RS-232C, up to 19.2 kbps)
Test Interface Connectors	Three Bantam jacks (TX, RX, RX2)
Serial Interface Connector	8-pin mini-DIN (RS-232)

Memory & Storage

Test Result Storage	Up to 10 test results
User Profiles Storage	Up to 10 user-defined configurations

User Interface

LED Status Indicators	16 LEDs for real-time status and alarm history
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Measurement & Analysis

Performance Analysis	ITU-T G.821 calculations (ES, SES, UAS, EFS, and CSES)
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Power Specifications

Battery Type	Rechargeable NiMH battery pack
AC Charger Input	100 - 240 VAC, 50/60 Hz

Standards Compliance

T1 Pulse Template Compliance	ANSI T1.102-1993, ITU-T G.703
Performance Analysis Standards	ITU-T G.821, G.826, M.2100

TECHNOLOGY

T1 (DS1) Transmission

APPLICATIONS

Telecommunications troubleshooting, installation, and maintenance

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