SunSet E1

Powerful and Reliable E1 Handheld Test Set

With a proven success record, the SunSet E1 leads the field of E1 handheld test sets in today's market. You will find in the SunSet E1 the power and reliability to meet all your testing needs in installation, acceptance, and maintenance of 2.048 Mbps digital transmission circuits. SunSet E1 simplifies your testing and shows you your desired results more quickly. You will appreciate having all these capabilities in a handheld package that you can take anywhere.

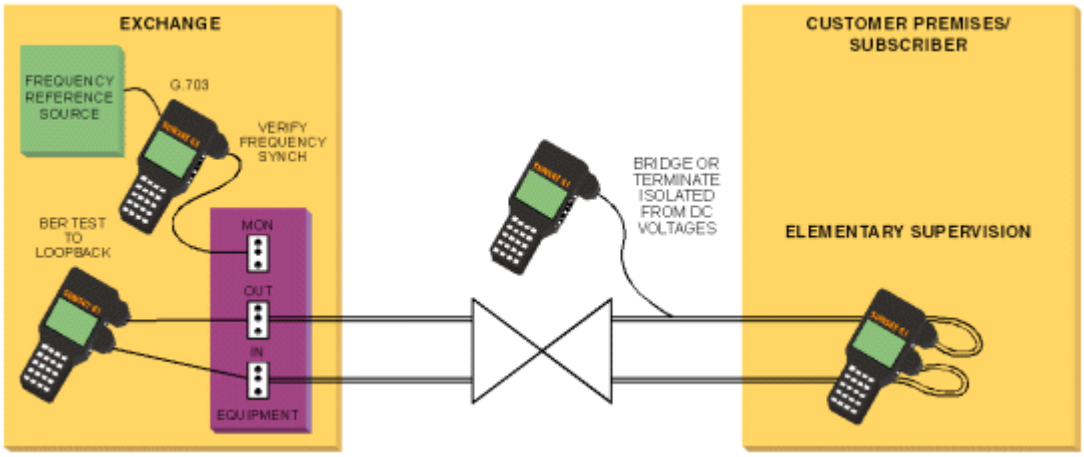
Highlights

- Terminated, Protected Monitoring Point, and High Impedance Input
- G.703 Pulse Shape Analysis
- ITU-T G.821, G.826, and M.2100 Analysis
- Frequency measurements with selectable resolution
- N x 64 fractional 2 Mbit/s BERT
- Auto configuration
- Error insertion / Alarm generation
- Propagation delay
- VF measurement
- 8 frames monitoring of received data and 30 channel ABCD signaling bits
- Histograms Analysis
- E-bit Performance Monitoring
- VT 100 menu-based remote control

Take SunSet E1 anywhere you like, and you will perform E1 testing with full confidence. For more information, please contact your local Sunrise distributor.

TERMINATED, PROTECTED MONITORING POINT, AND HIGH IMPEDANCE INPUT

At any points in your digital network, SunSet E1 allows you to connect and test a digital transmission network. The SunSet E1 comes with 3 popular input modes. First, connecting directly to IN / OUT ports of terminal equipment in Terminated mode. Second, monitoring directly at a live traffic in High Impedance (Bridge) mode. Final, monitoring at Protected Monitoring Point which is commonly provided in terminal equipment. Wherever you are either in Exchange or at Customer premises, you can easily connect the SunSet to monitor and analyze the digital network.



G.703 PULSE SHAPE ANALYSIS

Pulse Mask Analysis displays the received signal shape versus the ITU-T G.703 pulse mask on-screen. You can tell at a glance whether the signal pass or fail within the limit lines. For your convenience, all importance parameters such as pulse width, rise time, and fall time are presented in one screen.

ITU-T G.821, G.826, AND M.2100 ANALYSIS

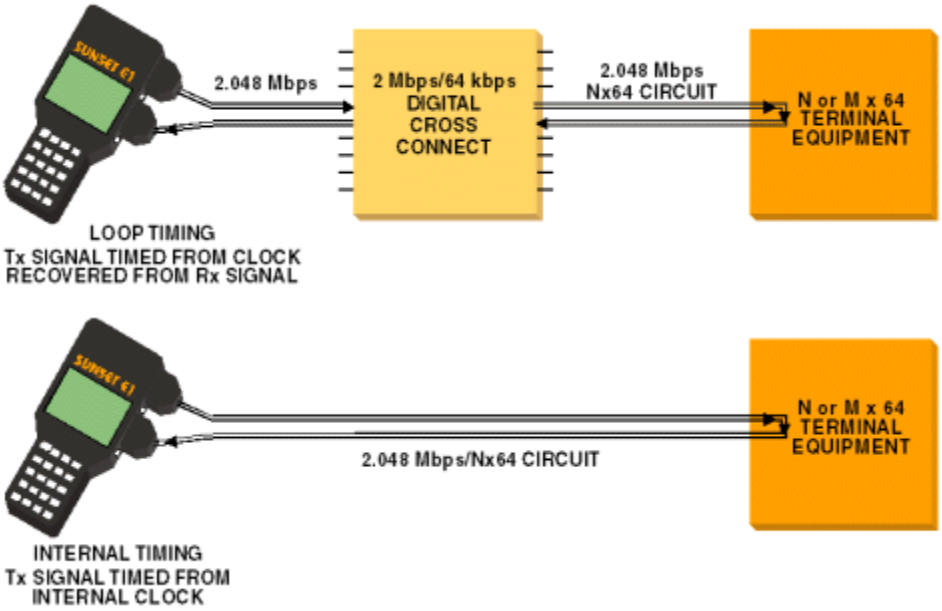
SunSet E1 provides a comprehensive test according ITU-T G.821, G.826, and M.2100 standard. This error performance analysis ensures the quality of services of your digital transmission network. This test can be performed in either out-of-service testing or in-service testing. HRP Model % can be set separately.

FREQUENCY MEASUREMENT

Frequency on the Rx line can be measured at selected resolution such as 1 Hz, 0.1 Hz, and 0.01 Hz. This feature in SunSet E1 allows you to identify any Frequency Synchronization problems in your network. Simply connect a 2.048 Mbps reference frequency source to Reference Clock port of SunSet E1, the SunSet will compare the timing of your circuit with the reference source. This will graphically display any frequency variation and frame slips. You can see if there is a problem because the frequency value will vary from the 2.048 MHz reference frequency. Wander value, shown in the frequency measurement result, also provides an indication of any low-frequency variation in the signal's frequency.

N X 64 FRACTIONAL 2 MBIT/S BERT

SunSet E1 allows you to perform bit error rate testing not only at E1 rate but also at Fractional E1 circuit (N X 64 Kbps channel). Select anywhere from 1 to 31 channels you want, or use Auto configure will help you find the active channels effortlessly.



Auto Configuration

Using the AUTO selections, SunSet E1 can be configured to automatically detect incoming framing and CRC-4 bits.

ERROR INSERTION/ ALARM GENERATION

Error injection / Alarm generation capabilities let you verify the performance of the network equipment's built-in diagnostics. SunSet E1 provides a variety types of error and alarms including bit error, code error, CRC-4 error, frame error, bit slip, E-bit error, and AIS alarm.

PROPAGATION DELAY

Propagation delay presents the round trip delay time on the loop-back circuit. This measurement can be performed in the TERM, MONITOR, or BRIDGE mode. The result is presented in Unit Interval (UI) and microsecond (mS).

VOICE FREQUENCY MEASUREMENT

The SunSet E1 analyzes voice conversion by inserting and measuring tones (820 or 1020 Hz) on individual voice channels. You may talk and listen over a desired channel using the SunSet's built-in speaker and microphone. All measurement results such as received data, frequency, and level can be shown in one screen.

MONITORING OF RECEIVED DATA AND 30 CHANNEL ABCD SIGNALING BITS

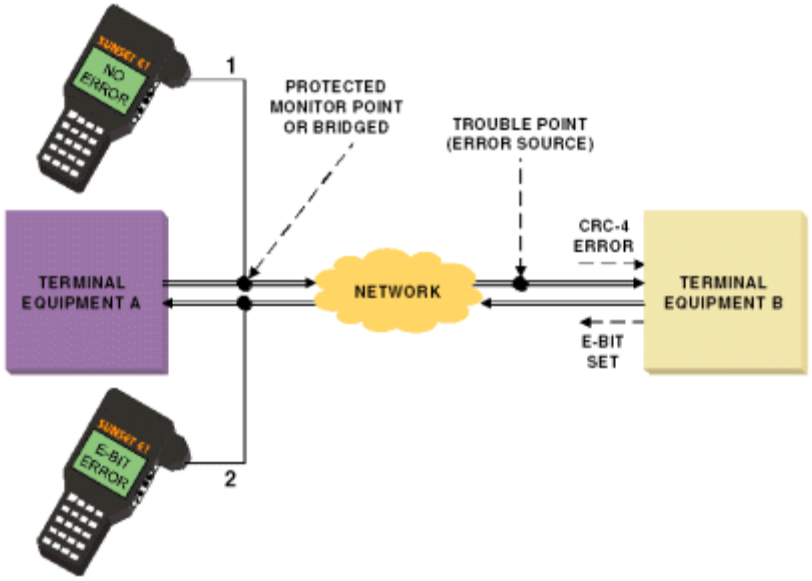
You can observe network codes or channel data. The SunSet E1 provides a large screen display, which is useful for analyzing live circuit data. The received data up to 8 frames can be viewed as in binary, HEX, and ASCII formats. 32 pages of data are stored at once so that you can scroll down through the information and observe the changes, which have occurred over time.

HISTOGRAM ANALYSIS

Histogram analysis is to quantify intermittent problems, such as bit error, code error, or CRC-4 error, over as much as a 7-day period. The histogram analysis feature displays the type of errors and their individual histories, which occurred during the last basic measurement performed. The histogram results may be viewed, saved, or printed, as you like.

E-BIT PERFORMANCE MONITORING

In response to CRC-4 error, the terminal equipment B will send E-bit back to the originated terminal A. At the terminal A site, SunSet E1 can monitor E-bit by plugging into protected monitoring point #2 on the digital transmission network. It tells you that error occurred at the remote site. E-bit error transmission allows a 2.048 Mbps in-service circuit to be reliably monitored from transmission performance from any point on the circuit. Without E-bit error transmission, only a complete circuit failure can be reliably determined at any point on the circuit.



REMOTE CONTROL

You can access and control the SunSet E1 remotely. Controlling the SunSet E1 through the remote control is similar to controlling the SunSet E1 directly. The remote control allows a remote user and a local user to use the test set together at the same time. This simultaneous-usage feature can help a team of technician fix a problem faster.