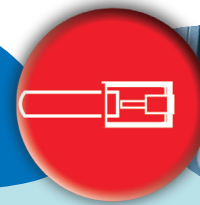


9581 SST

Return Path Analyzer



- Catch “bursty” ingress and impulse noise interference to voice services with extremely high spectrum acquisition speed
- Manage service quality efficiently with 24/7 monitoring and configurable SNMP alarms
- Align and troubleshoot reverse path quickly and easily, and cost effectively consolidate installation and network maintenance support equipment in the headend
- Scalable and cost-effective in every configuration

The 9581 SST™ is the hub of the Guardian System II™ for return path maintenance, providing installation, reverse sweep and ingress spectrum information to field technicians using Trilithic's field units. When used in a Guardian System II, the 9581 SST shares spectrum information with the monitoring facility and the field units, speeding up problem identification and shortening repair times. The 9581 SST monitors the return band, generates SNMP traps, and relays monitored data to NOCs and designated network engineers. Extremely flexible, each SST supports up to twelve distribution technicians and a virtually unlimited number of installers. It can provide live spectrum information and recent historical data to as many as eight independent monitoring sites, each using its own SNMP trap criteria. Traps sent to each of these sites can be configured for different ingress severity alarm limits and persistence.

Ability to Capture All Types of Ingress
Cutting-edge DSP technology gives the 9581 SST unmatched power for capturing

all types of ingress, including the short bursts that degrade VoIP services. Up to 100 times faster than analog-based analyzers, the 9581 SST captures and analyzes the entire spectrum of all connected nodes in microseconds and rescans them up to 120 times per second. Thanks to the 9581 SST's unmatched scanning speed and high rescan rate, the NOC operator or field technician never misses an ingress outbreak capable of disrupting return services.

Features a Wide Selection of Operating Modes

A wide selection of operating modes makes the 9581 SST a highly versatile return path troubleshooting aid. Through Viewer II™ software, the operator can view node spectrum information at resolutions from 30 kHz to 3 MHz to facilitate troubleshooting. The operator can also select averaging and continuously running Max and Min functions to diagnose immediate problems and long-term performance issues.

TrafficControl™, a data processing mode unique to the 9581 SST, lets the operator analyze ingress hidden inside occupied frequency bands. TrafficControl automatically removes all legitimate TDMA signals from the displayed spectrum, leaving an easily analyzed spectrum composed solely of noise and ingress.



Versatile, Flexible and Scalable

The 9581 SST simultaneously supports:

- Installation tests
- Distribution sweep and maintenance
- Return path performance monitoring

Each 9581 SST can:

- Support up to 16 individual nodes
- Support up to 12 distribution techs
- Support dozens of installers
- Send traps and live spectrum data to as many as eight server sites

Efficient Distribution Maintenance

The 9581 SST transmits sweep and return spectrum information to 860 DSP™ Field Analyzers and RSVP2™ Installation Testers, updating all field displays every 0.8 seconds regardless of the number of instruments being supported.

Fast and Accurate Installations

The RSVP2 Installer's Return Tester and 860 DSPi Field Analyzer with Option VP-1 analyze data from the 9581 SST to evaluate the reverse power level and C/(N+I) from the subscriber to the headend.

Superior Return Monitoring

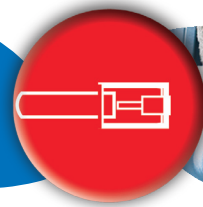
When used with Viewer II Monitoring Software, the 9581 SST can dispatch traps to as many as eight servers, each provided with its own SNMP trap criteria. Each client user has independent selection of display resolution and may choose any available detector settings without interference to other users or loss of speed.

The Guardian System II

The Guardian System II is a powerful, flexible system of field and central office products supporting all aspects of return path management, including installation, distribution system alignment and ingress control, ingress monitoring and real-time troubleshooting. All elements of the return maintenance process are closely linked for maximum efficiency, flexibility and optimum cost-effectiveness.

GENERAL SPECIFICATIONS

Standard Connection	Two test ports.
Optional Connections	Add one TPM-8 module: 9 test points. Add two TPM-8 modules: 16 test points. Each test point is analyzed individually.
Functions Simultaneously Supported	Reverse Sweep, working with 9580 SSR Field Units or 860 DSP Signal Analyzer with Option SR-1. Reverse Installation Testing, working with RSVP2 Installer's Reverse Tester or 860 DSP Signal Analyzer with Option VP-1. Reverse Path Ingress Monitoring with SNMP alarms compatible with Viewer II Software. Viewer II live-view software spectrum analysis.
Measurement Refresh Speed	Field Equipment: Every 0.8 seconds. Monitoring and Alarming: Every 0.4 seconds. Live-Viewing Functions: Every 0.4 seconds.



SPECTRUM DATA RESOLUTION (RBW)

Network Applications	30 kHz, 100 kHz, 300 kHz, 375 kHz, 3 MHz
Field Applications	375 kHz
Transient Troubleshooter Mode	300 kHz at high scan rate
Display Range	50 dB dynamic range, 1 dB measurement resolution
Level Accuracy	+/- 1 dB

SPECTRUM PROCESSING MODES (Available Simultaneously)

Peak Mode	Single spectrum comprised of the peak values of 16 - 32 spectrum scans collected during previous 0.4 seconds.
AVG Mode	Single spectrum averaging the 16 - 32 spectrum scans collected during previous 0.4 seconds.
TraffiControl Mode	Processes return spectra to remove all TDMA traffic to enhance ingress detection. Updates every 0.4 seconds.

SPECTRUM SCAN RATE

ENM Mode	Supports both Network and Field Applications: Scans all test points 40 scans / second.
SFM Mode	Supports only Transient monitoring and Analysis functions: Scans all test points 120 scans / second.

FIELD UNIT SUPPORT

Field Functions Supported	<p>Spectrum view, 0.3 - 65 MHz. Current node is automatically selected or user may select other nodes supported by same SST.</p> <p>Sweep, 0.3 - 65 MHz. Up to 12 field units independently supported per SST.</p> <p>Ranging test for installation verification. Typically supports 50 or more RSVP2 Reverse Installer's Tester or 860 DSP Option VP-1s per SST.</p>
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Field Communications

Data Carrier	One telemetry carrier for each 8 test points.
Data Carrier Frequency Set Ranges	50.00-53.75 MHz and 70.00-75.75 MHz; or 80.5-92 MHz. Setting range is specified at time of order.
Data Carrier Frequency Resolution	Center frequency user-settable in 50 kHz steps.
Data Carrier Occupied Bandwidth	150 kHz at -20 dBc 475 kHz at -60 dBc

NETWORK SUPPORT

Communications	(Requires optional communications interface): Ethernet LAN connection (10 mbits/s). 9581 SST functions as mini-server supporting up to 6 simultaneous users, each with own user name.
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Data Available per Test Point	Live spectrum scans, all detector modes. Last ingress-affected spectrum. Last test results vs. four amplitude limit sets, user-settable persistence threshold. Running, long-term Max and Min spectra (restartable by user). Peak, Min and Avg spectrum data compressions for last 30 minutes.
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Mechanical, Miscellaneous

SST Display Panel:	Auxiliary display for local viewing: Backlit LCD, 1.5" x 2.75"
Controls:	Tactile key pad
Size:	3.5" x 17" x 12.3"
Weight:	7 lbs.
Power:	95 - 230 VA, 50 - 60 Hz

INCLUDES THE FOLLOWING:

Rack-mount Unit
P/N 2010903000
Contact factory for options

A/C Line Cord

Users Manual

SST Configure Software
P/N 0930105000

Guardian II Integrated Server Package
P/N 2011009100

ADIA Integrated Server Package
P/N 2011093100