



## SmartSight

# QoS SCOPE 7500 SERIES

Spirent's SmartSight Quality of Service (QoS) Scope 7500 logical network probe gives you a customer-centric diagnostic view of your IP and Ethernet-based services at 10Gbps access points, emulating your customer's Class of Service (CoS) characteristics and providing immediate and actionable status information about your network through a combination of active and passive tests.

### APPLICATIONS

Spirent designed the QoS Scope 7500 for co-location at service aggregation points within the provider network. Testing of both the network and IP based services is accomplished through a series of industry-standard passive and active routines. This combination provides verification of the network infrastructure, while simultaneously providing verification of revenue-generating Ethernet services.

This visibility extends to multiple locations throughout the provider network, including other aggregation locations or end-points such as Network Termination Equipment (NTE), providing both a complete end-to-end transport network and service validation system with fault sectionalization. This result is assurance that services are provisioned correctly the first time, and when faults do occur, they are rapidly identified and corrected.

Whether it's supporting Transparent LAN Services, VPLS, or IP VPN Services, each QoS Scope 7500 probe provides an independent means of verifying the service prior to customer handover, as well as, identifying and locating problems with established services.

Each durable, compact QoS Scope 7500 probe is built from the ground up to support the demands of today's carrier environment, including NEBS Level 3 and CE Class A certification, and is powered by -48V DC, so you can deploy them with confidence wherever your central offices or serving exchanges may be.



### BENEFITS

- **Network and service validation:** Verifies operational status of both underlying network capabilities and IP-based services prior to customer cutover—from a single desktop, without having to rely on expensive field services personal.
- **Emulates the customer experience:** Quickly verifies and diagnoses faults, reducing operational expenses and preventing unhappy customers. See exactly what your customer is experiencing!
- **Sectionalizes the trouble: Provides end-to-end and single-ended measurements allowing quick and accurate dispatches.**
- **Scalability to meet mainstream deployment:** Allows wide-scale automation to meet carrier class deployment timeframes.
- **Lower cost of ownership:** Modular architecture provides ability to upgrade to higher rates—40Gbps and 100Gbps—in the same chassis.

## KEY FEATURES

- Separate interfaces supporting simultaneous active and passive test functions, including capture and decode capabilities
- Optimized design in support of Ethernet services including Layer 2 VPLS and VPWS services and Layer 3 managed Ethernet services
- IP network performance measurements
- Multi-slot chassis—field upgradeable to multiple 10G and higher rate modules

## TECHNICAL SPECIFICATIONS

### Measurement Modes

Multiple Active and/or Passive simultaneous tests

- *Active*—Transmission and measurement of test traffic in order to characterize the network and/or service
- *Passive*—Nonintrusive observation and analysis of subscriber generated traffic
- *Decode*—Packet capture/decode tool supporting over 400 common network protocols providing traffic analysis on a byte-by-byte basis

### Test Features

- Test traffic sent and measured by VLAN tag and VLAN priority (802.1Q & Q-in-Q)
- IP traffic sent with proper CoS—DSCP or TOS
- Active tests
  - RFC 2544
  - Network Quality (round trip or one-way), latency, loss, and jitter
  - Throughput testing, packet sequence testing, Ping, and Trace Route
  - Y.1731/802.1AG Loopback

- Active tests between selected field test units, QoS Scopes, or NTE devices, —end-to-end test and sectionalization capabilities
- Passive tests
  - Packet Capture
  - Link and VLAN statistics
  - Protocol Distribution
  - Packet Size Distribution
  - Top Talkers

### Network Element Interoperability

Interoperability is provided at two levels:

- Management, automation, and scheduling of all accesses by controlling the appropriate routers, switches and test equipment
- Management, automation, and scheduling of just the test equipment for deployments where control of the routers or switches is not feasible

### Mechanical and Environmental

- 1.75 (H) x 19" (W) x 12" (D), 16 lbs.
- -48 vDC (400 watt max)
- Operating temperature -5° C to +55° C (41° F to 130° F)
- NEBS Level 3
- CE Class A

### Management Interfaces

- RS-232 and 100BaseT RJ-4

### Test Modules

- 10GE Module -
  - Qty. 2 10GBASE SFP+ Interfaces



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