

Data Sheet

VIAMI

Fusion QT 600

10 Gigabit Ethernet Test Head

Part of the NITRO Transport Fusion Service Activation and Assurance System

The VIAMI Solutions QT 600 carrier-grade, scalable, 10 GE probe delivers test and troubleshooting capabilities required to deploy 10 GE with confidence.

An integral component of VIAMI Fusion, the QT 600 lowers operations costs with a streamlined service turn-up process that rapidly segments the network to identify problem sources quickly. The QT 600 generates detailed test results giving service providers confidence in guaranteeing service-level performance. Service providers can convert this information into proactive measures for positive impact, building greater customer retention, loyalty, and helping to reduced operational costs with fewer multiple-technician deployments to remote locations.

The QT 600 works with both Fusion and EtherASSURE assurance and test systems to manage automated and on-demand tests.

The QT 600 can characterize customers' service performance before handoff to the end customer. The QT 600 supports virtual local area network (VLAN) testing, multipoint and point-to-point 10 G Ethernet services. Adding the 802.1q VLAN tag lets the QT 600 emulate end-customer traffic and operate in a Q-in-Q or preserved VLAN environment. The QT 600 can control VLAN or IP priority settings using differentiated services (DiffServ) and type of service (ToS) bits. This allows generated traffic to take on customer traffic-pattern characteristics, eliminating the need to coordinate dispatches to multiple remote sites for service turn-up. This capability, in turn, reduces operational costs and ultimately accelerates the service fulfillment process.

The capability for running multiple tests, such as ping, traceroute, 802.1ag/Y.1731 loopback and linktrace, multistream, RFC 2544, and Y.1564 (throughput, latency, frame loss, and back-to-back/committed burst size tests), enables service providers to turn up services rapidly and

Key Benefits

- Expedites time to revenue through centralized test management
- Provides standards-based service-activation testing and troubleshooting
- Automates test access management
- Remotely monitor networks and capture data
- Ensures multivendor interoperability

Applications

- Centralized service verification and assurance for:
 - mobile Ethernet backhaul in 3G, 4G, and LTE networks
 - Ethernet business service and cloud connectivity for point-to-point and point-to-multipoint architectures
- Fast, efficient, and reliable service activation for multiple services in parallel based on RFC 2544, Y.1564
- In-service performance monitoring and SLA verification
- Effective fault isolation and network sectionalization including top talker, capture, and decode



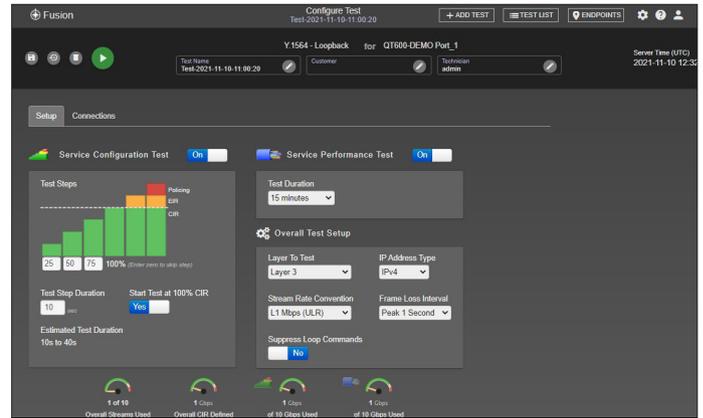
troubleshoot while isolating faults remotely from a single location. Input parameters for each QT 600 test are highly configurable, giving service providers maximum flexibility when troubleshooting.

Also, in loopback mode, the QT 600 can automatically loop back various edge and customer premises equipment (CPE) devices. Running both Layer 2 and Layer 3 loopback tests between two QT-600-10s and out to the customer premises can quickly segment the network to clearly identify whether problems lie within or outside of the service provider's domain.

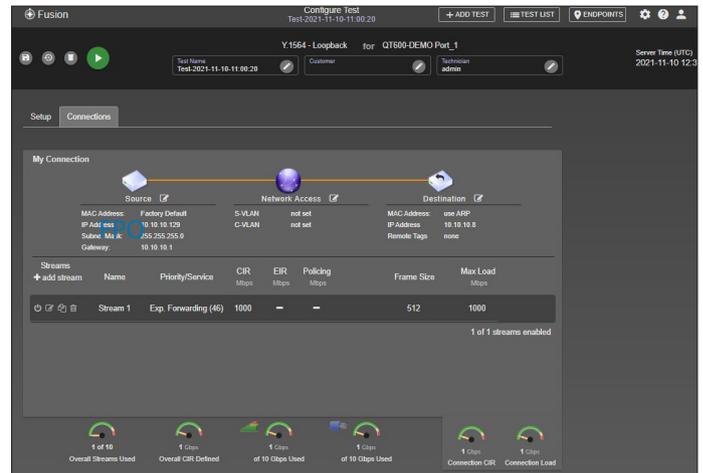
Carrier-Class 10 G Ethernet Network Probe

Built for carrier-class networks worldwide, the QT 600 is certified for both NEBS Level 3 and CE Mark. Its scalable architecture supports 10 GE using pluggable XFP interface modules.

The QT 600 can emulate end-user equipment and actively generate traffic that simulates actual customer traffic patterns. Providers can test and validate connectivity using ping, traceroute, and 802.1ag/Y.1731 loopback and linktrace messages while verifying service turn-up with RFC 2544 and Y.1564 throughput, latency, frame loss, and back-to-back/committed burst size tests. It can also mimic the real service mix by simultaneously testing up to 64 streams and multiple services.



NetComplete EtherASSURE solution SAMComplete™



NetComplete EtherASSURE solution NETMON

Simplified, Error-Proof Testing

The QT 600 seamlessly integrates with the EtherASSURE test and troubleshooting OSS so providers can create and manage centralized tests to ensure that standardized, consistent test procedures are followed, reducing user errors. Through its scheduling capability, operators can run repeatable test campaigns at specific times and intervals to assess network and service-level quality. Test results can be automatically e-mailed and can also serve as a baseline for future comparison over time. Its customer-mapping function lets operators create and run tests against customer services rather than against specific QT 600 probes for a simpler, more intuitive testing process with fewer errors.

Centralized Testing and Automated Test Access

The QT 600 optimizes resources by scheduling and queuing tests to run as resources become available. Automated test access and management control is achieved by configuring the service provider's switch using the QT 600, expediting and simplifying the workflow process. In addition, the QT 600 manages service turn-up end-to-end by automatically looping edge and CPE devices and test equipment, such as another QT 600 in the network, and third-party network interface devices (NIDs).

Specifications

Test and Troubleshooting	
Emulation tests	
RFC 2544	
Y1564 (SAMComplete)	
Loopback	
Ping	
Ping reply	
Traceroute	
Multistream	
CFM (802.1ag) Loopback	
CFM (802.1ag) Linktrace	
PPP Service Check	
Monitoring tests	
Network Monitor	
Capture	
General	
Electrical and optical	
RJ45	
XFP	
Other interfaces	Four USB ports
Size H x W x D	1 RU supports 19- and 23-in rack-mounts 44 x 427 x 330 mm (1-3/4 x 16-13/16 x 13 in)
Weight	5.56 kg (12.3 lb)
Temperature	
Operating	0 to 50°C (32 to 122°F)
Storing	-40 to 60°C (-40 to 140°F)
Power	AC (110/220 V) DC (-48 V); dual DC power feed
Power consumption	70 W
Certifications	NEBS Level 1, CE, CSA, UL, WEEE, and RoHS

Ordering Information

Description	Part Number
DC Chassis	
QT 600 NEBS –48 V powered XFP dual-port Ethernet probe	QT600-10
QT 600 Bracket NEBS ETSI 21-inch rack mount	QT600-10-21RMKIT
QT 600 Bracket NEBS 23-inch rack mount	QT600-10-23RMKIT
AC Chassis	
QT 600 AC powered XFP dual-port Ethernet probe	QT600-10G-AC
QT 600 AC QT 600 detachable power supply cord; Europe	QT600-10-AC-EUR
QT 600 AC QT 600 detachable power supply cord; Australia	QT600-10-AC-AUS
QT 600 AC QT 600 detachable power supply cord; UK	QT600-10-AC-UK
QT 600 AC QT 600 detachable power supply cord; North America	QT600-10-AC-NA
QT 600 detachable power supply cord; Switzerland	QT600-10-AC-CH
QT 600 AC bracket ETSI 21-inch rack-mount kit	QT600-10-AC-21RMKIT
QT 600 AC 23-inch rack-mount kit	QT600-10-AC-23RMKIT
Optical Interfaces	
QT 600 Plug-in module XFP optical transceiver 10 G 850 nm 8.5 to 11.31 Gbps	QT600-10-850XFP
QT 600 Plug-in module XFP transceiver 10 G 1310 nm 8.5 to 11.31 Gbps	QT600-10-1310XFP
QT 600 Plug-in module XFP transceiver 10 G 1550 nm 8.5 to 11.31 Gbps	QT600-10-1550XFP
Software Options	
QT 600 Metro Ethernet base	QT600-10-MEBS
QT 600 Second port activation	QT600-10-2P
QT 600 NETMON and Packet Capture	QT600-10-NTMN
QT 600 Asymmetrical test	QT600-10-ASYMM
QT 600 16 Tests/streams per port	QT600-10-16TEST
QT 600 32 Tests/streams per port	QT600-10-32TEST
QT 600 option for TWAMP PM generation	QT600-10-PMGEN



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