

Network & Service Companion (NSC-200)

Test Residential and Business Services up to 10 Gbps

Empower techs with the simplest, most comprehensive, fastest service activation test and troubleshooting solution.

The Network & Service Companion (NSC-200) allows techs and contractors to validate both network and service layers up to 10G before sharing their test results with customers and providers.

- Simplify the closeout test process and analysis for both inexperienced and expert techs with one-button, one-screen result tests, all run under 1 minute.
- Prevent customer complaints or find the root cause of issues by testing at every access point (GPON, XGSPON, Ethernet, WiFi) for a clear and fast demarcation – the way your customer experiences it.
- Optimize WiFi coverage and performance; educate end users with simple room-by-room analysis. Get network improvement recommendations when performance is below expectation.



KEY BENEFITS

- Simply test everything anywhere – PON, Ethernet, WiFi – up to 10G
- Verify true customer experience and/or physical network layer on all PON, Ethernet and WiFi test interfaces
- Confirm PON service delivery is good before troubleshooting the premises
- Share reports directly via email
- Drive compliance of both direct and contracted staff with centralized, cloudbased workflow and result management

KEY FEATURES

- GPON, XGSPON, Ethernet and WiFi tests, including throughput tests up to 10 Gbps
- Ethernet 1G, 2.5G, 5G and 10G interfaces
- WiFi 3x3 tests and WiFi Expert up to WiFi 6 (802.11 a/b/g/n/ac/ax)
- PON data analysis (PON-ID)
- PON power levels
- Job Manager
- Mobile Tech app and StrataSync support



2019 Broadband Technology Review -
4.0 Diamond Award Winner



2022 Broadband Technology Review -
4.0 Diamond Award Winner



2020 Lightwave Innovation Award 4.5 Winner

Specifications

GPON (Optional)		
ONU/ONT		VIAVI GPON SFP
Interface		SC/APC
Standard		G.984.2 GPON compliant G.988 OMCI compliant
Upstream (1310 nm) Tx Signal Power Range		0.5 dBm to 5.0 dBm
Downstream (1490 nm) Rx Signal Power Range		-28.0 dBm to -8.0 dBm
Test Results		PON Activation State, Power Level values from the SFP, PON ID, ODN Class – according to ITU-T G.984 and G.988 standards
XGSPON (Optional)		
ONU/ONT Emulation		VIAVI XGSPON SFP
Interface		SC/APC
Standard		G.9807.1 XGSPON compliant G.988 OMCI compliant
Upstream (1270 nm) Tx Signal Power Range		4.0 dBm to 9.0 dBm
Downstream (1577 nm) Rx Signal Power Range		-28.0 dBm to -9.0 dBm
Test Results		PON Activation State, Power Level values from the SFP, PON ID, ODN Class – according to ITU-T G.9807 and G.988 standards
Ethernet (Optional)		
Standard		IEEE 802.3 10M, 100M, 1G, 2.5G, 5G, and 10G Ethernet
Test Results		Ethernet Frames, IP Connectivity, Ping, Traceroute, Web Connectivity, Speed Test up to 10 Gbps
TWAMP Reflector (Optional)		10M, 100M, and 1G Ethernet TWAMP Light Reflector support
Port/L2/L3 Loopback (Optional)		10M, 100M, 1G, and 10G Ethernet Port Loopback and Source specific VIAVI Loopback support
WiFi (Optional)		
Test Results	WiFi Expert (Passive Mode)	Up to WiFi 6 (802.11 a/b/g/n/ac/ax) • Signal strength (RSSI), Channel, Standard, Width, Channel Noise, Total Airtime, Noise Airtime, Estimated Throughput, Recommendations
	OneCheck WiFi (Connected Mode)	Up to WiFi 5 3x3 (802.11 a/b/g/n/ac) • Signal strength (RSSI), Standard, Width, Max Router PHY Rate, IP/Web connectivity, Throughput Tests

Throughput / Performance Test (Optional)	
Interface	Ethernet, WiFi
TCP Throughput Test	Ookla Speedtest VIAMI TrueSpeed (RFC-6349) VIAMI SpeedCheck iPerf
Performance	10 Gbps for Ookla Speedtest, TrueSpeed, SpeedCheck, iPerf
Test Results	Delay, Upstream and Downstream Bit Rates
User Interface	
Communication Interface	Bluetooth v5.0
Smart Device Support (recommendation)	Mobile Tech app
	Android 8 or newer
	iOS 12 or newer
General	
Size	116 x 190 x 52 mm (4.6 x 7.5 x 2.0 in)
Weight	0.8 kg (1.7 lb)
Operating Temperature Range	Non-Charging: -10°C to 50°C
	Battery Charging: 0°C to 40°C
Storage Temperature Range	-20°C to 60°C
Operating Humidity Range	10% to 90% RH, non-condensing
Operating Altitude	4000 m max
DC Input Power	15V @ 3A, USB-C Power Delivery (PD)
Battery	32 W/hr Li-Ion rechargeable battery
	Field replaceable
Battery Life	1-week typical usage for installation technicians
Charge Port	USB-C
USB Host Port	USB-A (USB 3.0)

Standard Packages		
PON Package	NSC200-GPON-BASE	GPON
	NSC200-GPON-PLUS	GPON, Ethernet, Speedtest
	NSC200-GPON-PRO	GPON, Ethernet, WiFi, Speedtest
	NSC200-XGSPON-BASE	XGSPON
	NSC200-XGSPON-PLUS	XGSPON, Ethernet, Speedtest
	NSC200-XGSPON-PRO	XGSPON, Ethernet, WiFi, Speedtest
	NSC200-GPON-XGSPON-BASE	GPON, XGSPON
	NSC200-GPON-XGSPON-PLUS	GPON, XGSPON, Ethernet, Speedtest
	NSC200-GPON-XGSPON-PRO	GPON, XGSPON, Ethernet, WiFi, Speedtest
Home Package	NSC200-HOME-PLUS	Ethernet, Speedtest
	NSC200-HOME-PRO	Ethernet, WiFi, Speedtest
Enterprise	NSC200-ENTERPRISE-PLUS	Ethernet, TrueSpeed
	NSC200-ENTERPRISE-PRO	Ethernet, WiFi, TrueSpeed
	NSC200-LOOPBACK-BASE	Ethernet 1G
	NSC200-LOOPBACK-PLUS	Ethernet 10G
	NSC200-PLATINUM-1G NSC200-PLATINUM-10G	All

Options		
Test Applications	NSC-OC-GPON	NSC OneCheck GPON
	NSC-OC-XGSPON	NSC OneCheck XGSPON
	NSC-OC-ETHERNET	NSC OneCheck Ethernet
	NSC-OC-WIFI	NSC OneCheck WiFi
	NSC-WIFI-EXPERT	NSC WiFi Expert
Speed Tests	NSC-TRUESPEED-1G	NSC TrueSpeed (RFC-6349) over 1GE port up to 1Gbps
	NSC-SPEEDTEST-1G	NSC Ookla SpeedTest over 1GE port up to 1Gbps
	NSC-SPEEDCHECK-1G	NSC SpeedCheck over 1GE port up to 1Gbps
	NSC-IPERF-1G	NSC iPerf Test over 1GE port up to 1Gbps
	NSC-TRUESPEED-2G	NSC TrueSpeed (RFC-6349) over 2.5/5/10GE port up to 2Gbps
	NSC-SPEEDTEST-2G	NSC Ookla SpeedTest over 1+1/2.5/5/10GE ports up to 2Gbps
	NSC-SPEEDCHECK-2G	NSC SpeedCheck over 2.5/5/10GE port up to 2Gbps
	NSC-IPERF-2G	NSC iPerf Test over 2.5/5/10GE port up to 2Gbps
	NSC-TRUESPEED-5G	NSC TrueSpeed (RFC-6349) over 2.5/5/10GE port up to 5Gbps
	NSC-SPEEDTEST-5G	NSC Ookla Speedtest over 2.5/5/10GE port up to 5Gbps
	NSC-SPEEDCHECK-5G	NSC SpeedCheck over 2.5/5/10GE port up to 5Gbps
	NSC-IPERF-5G	NSC iPerf Test over 2.5/5/10GE port up to 5Gbps
	NSC-TRUESPEED-10G	NSC TrueSpeed (RFC-6349) over 2.5/5/10GE port up to 10Gbps
	NSC-SPEEDTEST-10G	NSC Ookla Speedtest over 2.5/5/10GE port up to 10Gbps
	NSC-SPEEDCHECK-10G	NSC SpeedCheck over 2.5/5/10GE port up to 10Gbps
NSC-IPERF-10G	NSC iPerf Test over 2.5/5/10GE port up to 10Gbps	
Enterprise	NSC-LOOPBACK-1G	NSC L2/L3 1G Loopback
	NSC-LOOPBACK-10G	NSC L2/L3 10G Loopback
	NSC-FUSION-CLIENT	NSC Fusion Client
	NSC-TWAMP-REFLECTOR	NSC TWAMP Reflector
	NSC-OPTICAL-ETHERNET	NSC Optical Ethernet
SFP	NSC-SFP-ELEC-1G	NSC 1G Electrical Ethernet SFP
	NSC-SFP-ELEC-AUTO-10G	NSC 2.5G, 5G and 10G Autoneg Electrical Ethernet SFP+
	NSC-SFP-ELEC-1-2.5-5-10G	NSC 1G, 2.5G, 5G and 10G Electrical Ethernet SFP+
	NSC-SFP-850-1G-10G	NSC 1G and 10G Optical Ethernet SFP+ 850 nm SR
	NSC-SFP-1310-1G-10G	NSC 1G and 10G Optical Ethernet SFP+ 1310 nm LR
	NSC-SFP-1550-1G-10G	NSC 1G and 10G Optical Ethernet SFP+ 1550 nm ER
	NSC-SFP-GPON	NSC GPON SFP (ONT Emulation)
	NSC-SFP-XGSPON	NSC XGSPON SFP+ (ONT Emulation)
Optional Accessory		
NSC-CARCHARGER	Car Charger with Cable	
Replacement Parts		
NSC-BATTERY	NSC Battery	
NSC-CHARGER	NSC Charger with Cable	
NSC-STRAP	NSC Hand Strap	
NSC-CASE	NSC Carrying Case	
NSC-ETHERNET-ADAPTER	Ethernet Cat6a M-F Adapter Cable	
NSC-ETHERNET-CABLE	Ethernet Cat6a M-M Patch Cable	