QNAP

QSW-3216R-8S8T

Half-width Rackmount 16-Port 10GbE Unmanaged
Switch for SMB/SOHO high-speed networking environment

RJ45
8 x RJ45

SFP+
8 x SFP+

Loop Protection

Wi-Fi 7 , The Next Generation Wireless Network Transfer Rate

With smart home, logistics, manufacturing and unmanned needs multiply, so that Wi-Fi technology iterative update. According to TrendForce's research, to meet the communication needs of the meta-universe and other industry visions, there are many large companies that have set their sights on the next generation of Wi-Fi 7. Looking ahead to the next generation of Wi-Fi 7, there are already companies such as MediaTek, Qualcomm, Broadcom, etc. that are in the process of laying out their plans. TrendForce believes that even though it has already gained the limelight. It is estimated that Wi-Fi 7 will be applied in late 2023~early 2024.In an era of rapidly increasing network capacity, it is important to **have a network switch with multiple 10GbE network ports** to fully utilize the Wi-Fi 7 and Wi-Fi 6E wireless router products.

Network Switch is the Foundation for all Network Applications

Targeting the pain points of SMB/SOHO to enhance their network requirements
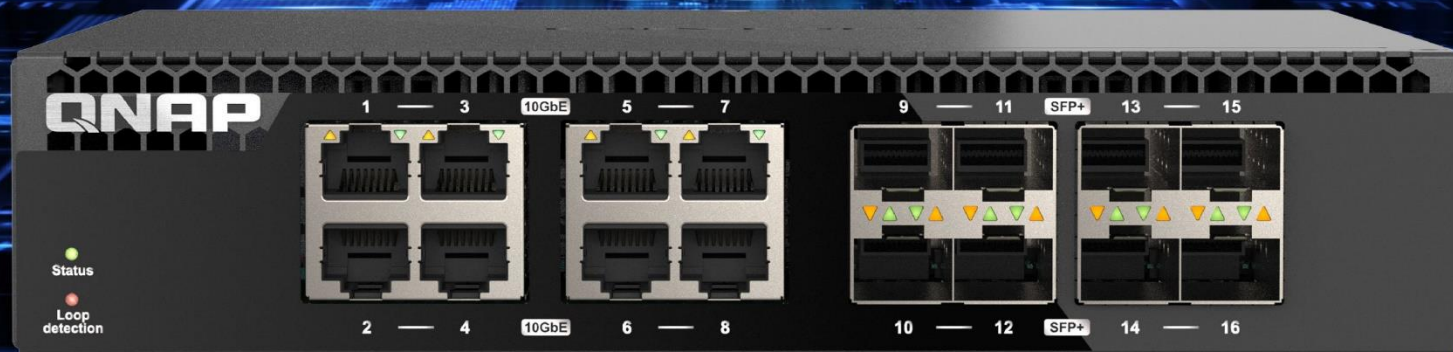
In today's context of increasing network transmission speed requirements, SMB/SOHO need to build a comprehensive 10GbE high-speed network architecture. To build a complete 10GbE high-speed network infrastructure for SMB/SOHO, it is necessary to consider all aspects, and the first thing that should be considered is the foundation of all applications - the network switch. When purchasing a 10GbE network switch, you should not only consider the transmission speed and price, but also think more comprehensively about how to maximize the effective investment in your enterprise's information flow infrastructure, i.e., consider the application scenarios and future scalability of the network switch. Since the network switch is the backbone of the network deployment, any change is a huge project, so it is recommended that users consider the "one-stop-shopping" approach to avoid the need to adjust the specification later and cause a great deal of trouble for network administrators and users. QNAP's full 10GbE switch QSW-3216R-8S8T provides you with a considerable amount of expansion flexibility, greatly minimizing the need to replace equipment in the future.

Specifications

Half-width Rackmount 16-Port 10GbE Unmanaged Switch

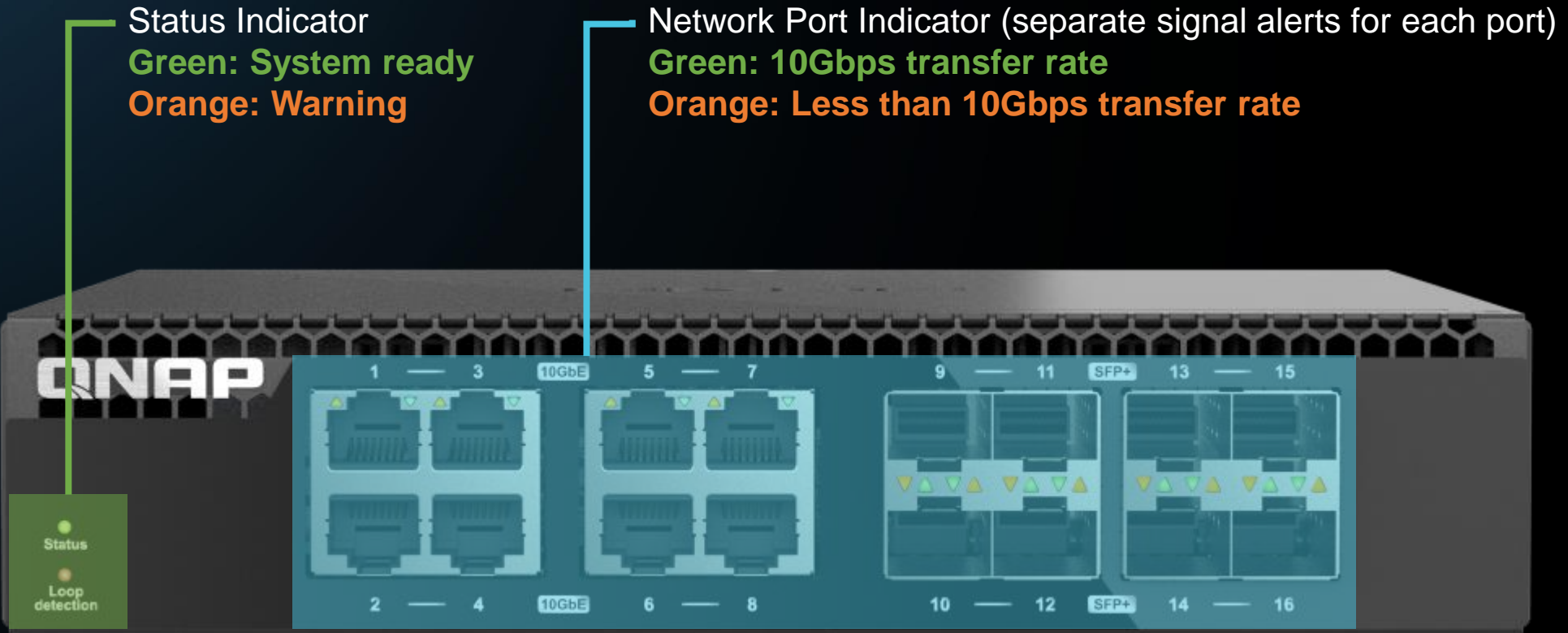Fast Deployment of High-Speed Network Environment for SMB/SOHO

Highly Intuitive LED Status Indicators

Status Indicator
Green: System ready
Orange: Warning

Network Port Indicator (separate signal alerts for each port)
Green: 10Gbps transfer rate
Orange: Less than 10Gbps transfer rate
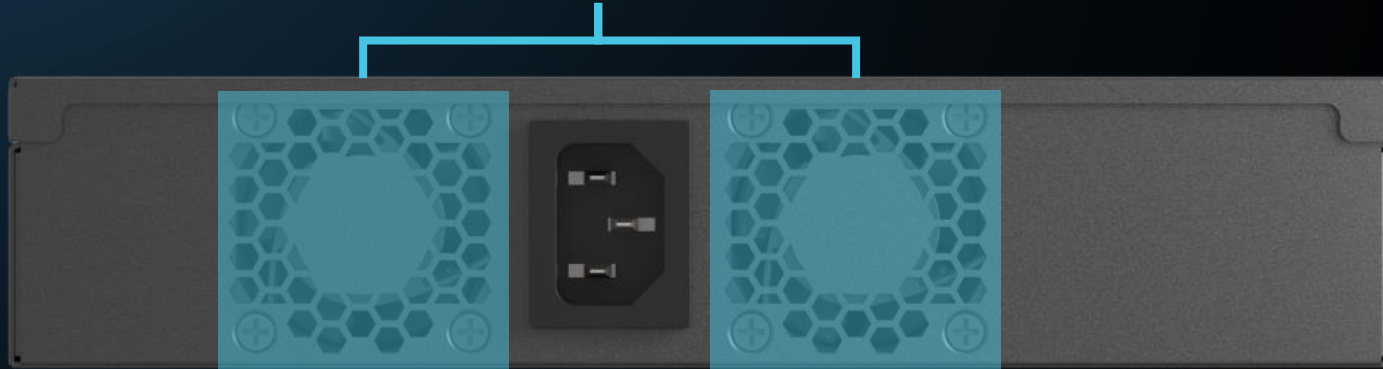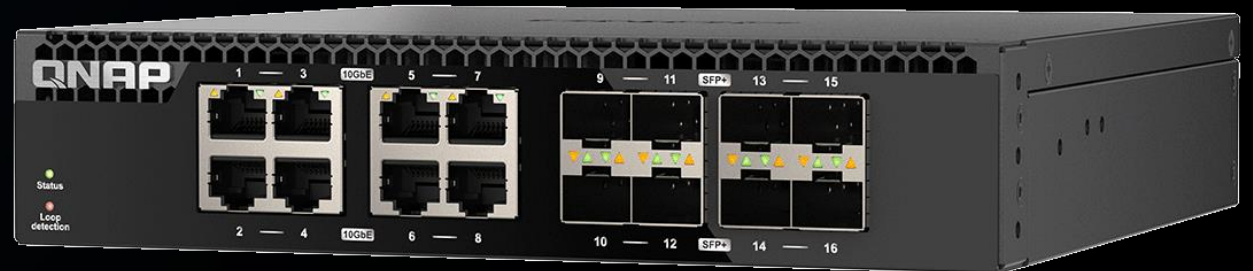
Metal Case with Dual Fan Design for Enhanced Cooling Capability

Dual-fan design not only improves cooling capability, but also reduces the problem of ineffective cooling when a single module fails, and effectively reduces noise level.

The sturdy metal case can effectively dissipate heat during high-speed access to maintain stable system operation.

# Plug and Play, High-Speed Network Environment Easily Established

The QSW-3216R-8S8T features plug-and-play set up, eliminating the need for complicated network setup, and supports Auto Negotiation, which automatically detects the optimal transmission speed in RJ45 ports (10G/5G/2.5G/1G) for different connected devices, eliminating the need for a full upgrade of the old device.

	CAT 5e	CAT 6	CAT 6A
100M	V	V	V
1G	V	V	V
2.5G	V	V	V
5G	V	V	V
10G	X	V (55m)	V

Upgrade of existing network cable environment ！
Support for Multi-Giga NBASE-T
**Industry Standards**

Simultaneous 10Gbps network transmission up to 16 ports!!!
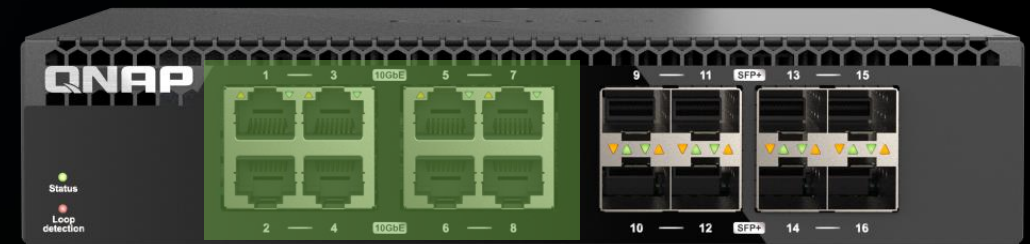
# User-friendly Design with Loop Detection and Blocking Features

Loop detection and blocking to ensure proper network operation

QSW-3216R-8S8T has built-in network loop detection. Once the loop is detected, it will directly target the network port with loop to lock it, so that the network environment can be restored to normal in the shortest possible time.
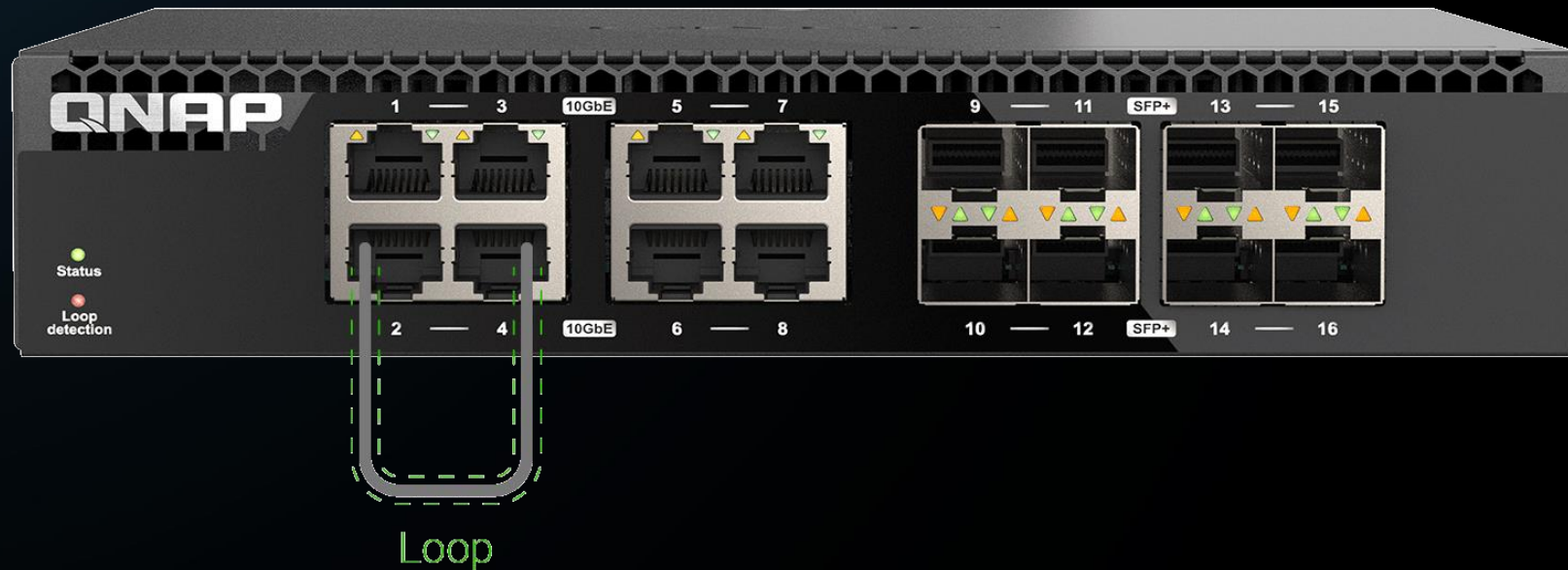
Support Flow Control in Full-Duplex Mode

The QSW-3216R-8S8T supports the flow control function, which follows the IEEE 802.3x Full-Duplex Flow Control protocol in full duplex mode to avoid packet loss due to bandwidth mismatch.

Flow control to manage all device traffic

33%

33%

33%

100%
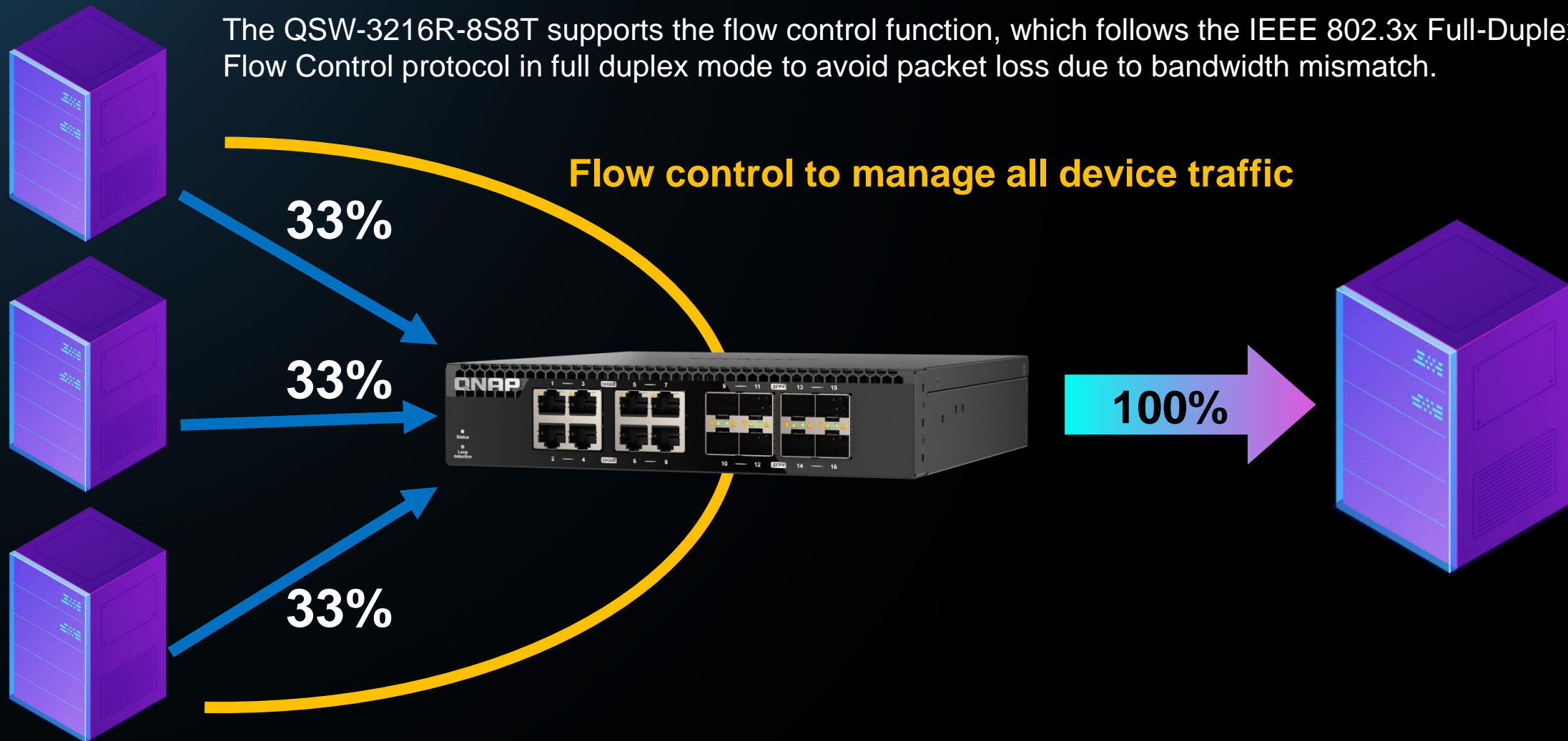
Half-width design, space saving, two models in 1U

With a half-width rackmount design, a QSW-3216R-8S8T can be installed in a 1U rack space with another half-width rackmount switch for efficient physical space utilization and tidy cabling.

Note: The optional SP-EAR-QSW2FOR1-01 rackmount kit is required if two half-width rackmount switches are installed.

SP-EAR-QSW2FOR1-01

QSW-3216R-8S8T 10GbE Switch Specifications

	QSW-3216R-8S8T
10GbE SFP+	8 ports
10GbE BASE-T RJ45	8 ports
Switch Bandwidth	320Gbps
Support Jumbo Frame	Up to 9K package size
Support MAC Address Table	Up to 16K
Design	Half-width Rackmount
Operating Temperatures	0°C to 40°C (32°F to 104°F)

Width 207 mm/8.15 inch

Length 199.5 mm/7.85 inch
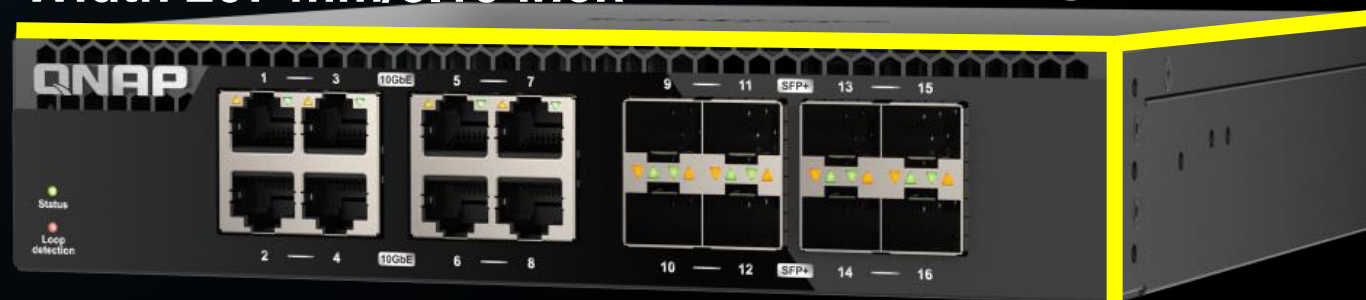
Height 43.3 mm/1.7 inch

2-year Product Standard Warranty
Optional 3-year Extended Warranty

The QSW-3216R-8S8T comes with a **free 2-year** product warranty. If you need a longer warranty, you can purchase the QNAP Extended Warranty Service Plan **LW-SWITCH-YELLOW-3Y-EI** for up to **5 years** of product warranty and value protection.
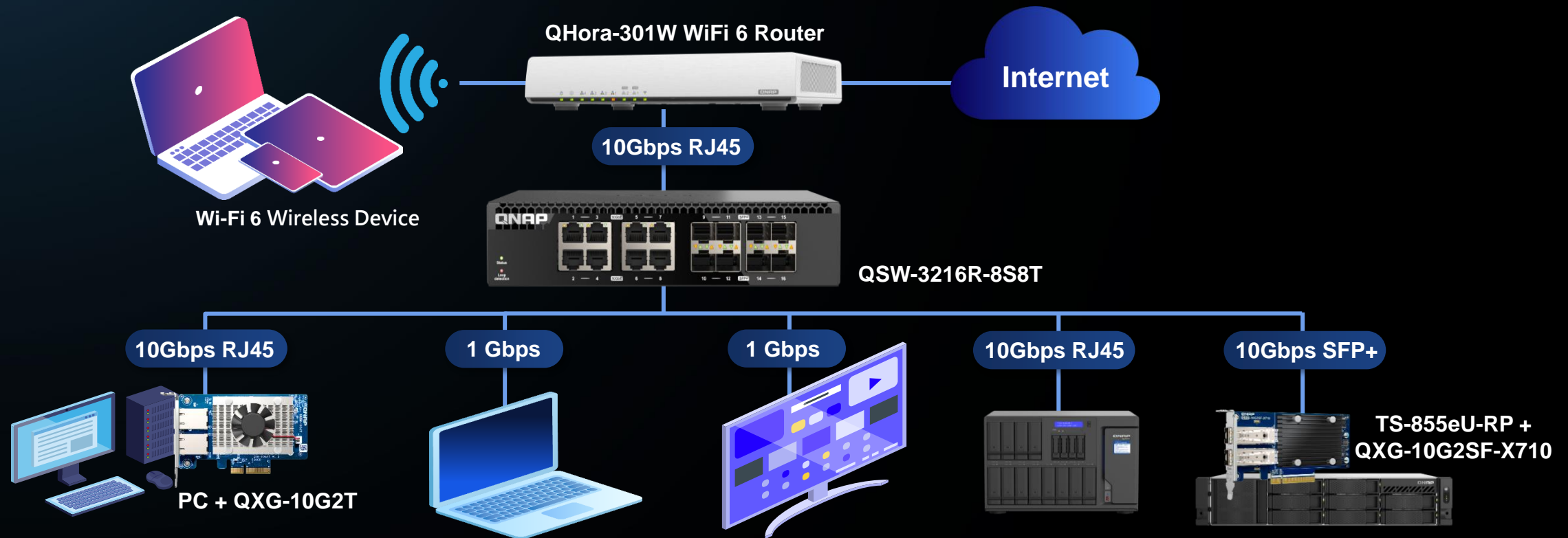
More Information: QNAP Warranty Service

QNAP Warranty Service Address:
https://www.qnap.com/service/product-warranty/go/

Combined with QNAP Products
for Multiple QNAP Switch Use cases
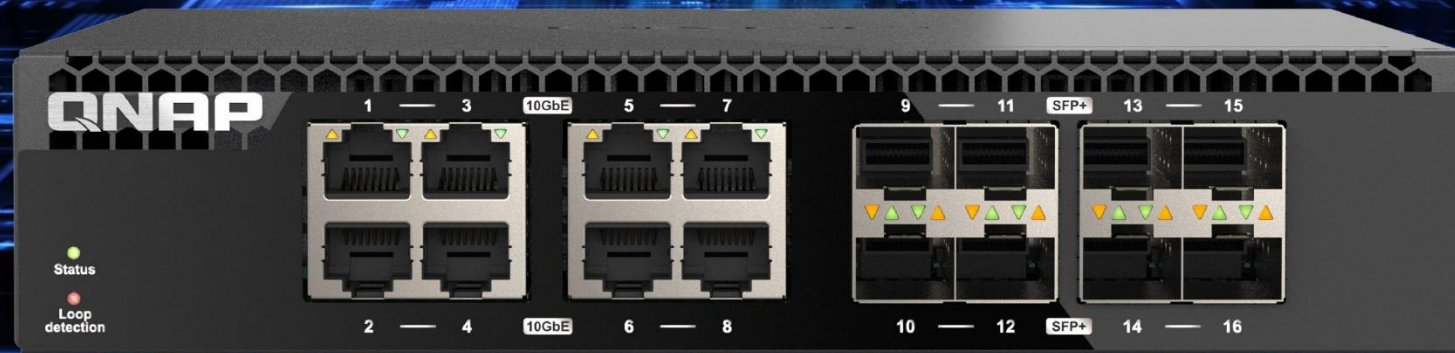
16-Port 10GbE SFP+ and RJ45 Network for Flexible Configuration of Network Architecture

QSW-3216R-8S8T features eight 10GbE SFP+ fiber ports and eight 10GbE Ethernet ports, which can flexibly connect network devices with different interfaces of fiber optic (SFP+) and copper (RJ45) cables to meet the high-speed network configuration of SMB/SOHO, and achieve smooth file transfer, VM applications, or multimedia audio and video playback and sharing. When using the RJ45 interface, it can be used with Cat 6 to achieve 10GbE network transmission speed for efficient data transfer; it also provides low-speed connectivity for downward compatibility with legacy devices.

QHora-301W WiFi 6 Router

Internet

Wi-Fi 6 Wireless Device

10Gbps RJ45

QNAP

QSW-3216R-8S8T

10Gbps RJ45   1 Gbps   1 Gbps   10Gbps RJ45   10Gbps SFP+

PC + QXG-10G2T

TS-855eU-RP + QXG-10G2SF-X710

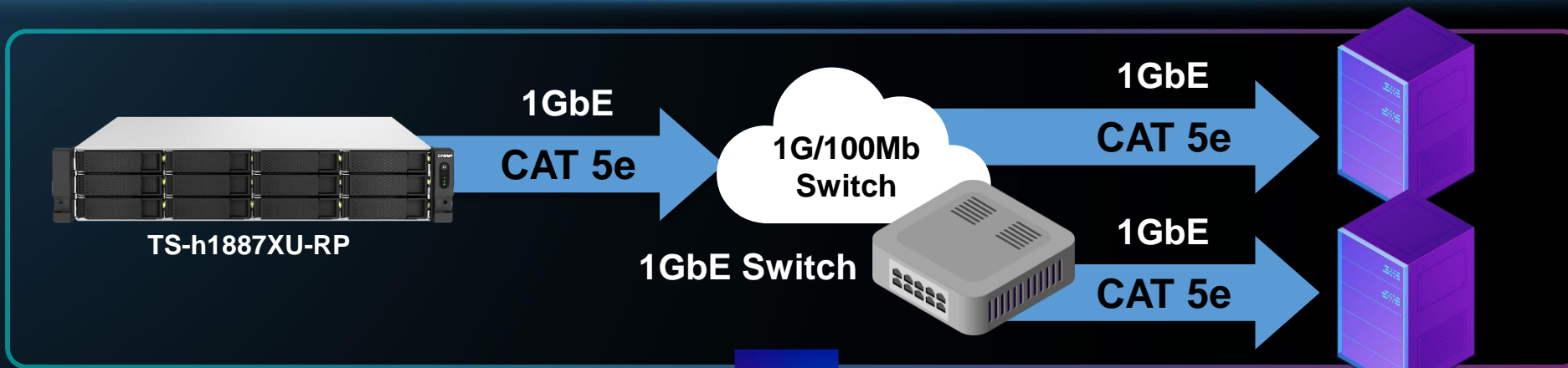# Comprehensively Upgrade your Network, Storage and Computer Equipment to Enhance Team Productivity

PC + QXG Series Multi-Gig Network Expansion Card

PC and server with PCIe slots can install QNAP network expansion cards supporting 10G/5G/2.5G/1G/100M Multi-Gig for simplicity and flexibility.

10/5/2.5GbE PC + QXG-10G2T

Wi-Fi 6 Wireless access point (Wi-Fi 6)

10/2.5GbE

10GbE

QNA-T310T1S
QNA-T310G1T

QHora-301W WiFi 6 Router

QSW-3216R-8S8T

Pair with the QHora-301W to create a high-speed hybrid network configuration that supports high-speed Wi-Fi 6 wireless transmission and 10GbE wired networking, as well as enterprise-grade SD-WAN VPN networking capabilities.

10/5/2.5GbE

Laptop

Several NAS models support 2.5GbE/10GbE networks. The use of Port Trunking Network Aggregation brings the advantage of bandwidth consolidation.

Laptop can also be paired with a QNAP network adapter to expand 10GbE through the Thunderbolt port, making it easy to boost network speeds.

TS-855X

TS-855eU-RP + QXG-10G2SF-X710

QNAP NAS + QXG Series Multi-Gig Network Expansion Card

Minimize the cost of upgrading your network from 1GbE to 5GbE speeds with CAT5e cable

1GbE

TS-h1887XU-RP

1GbE
CAT 5e

1G/100Mb Switch

1GbE Switch

1GbE
CAT 5e

1GbE
CAT 5e

Direct speed up of the original cable

5GbE

Use the NAS's built-in 10GBASE-T RJ45 port

TS-h1887XU-RP

5GbE
CAT 5e

QNAP

5 GbE Network Speed

QSW-3216R-8S8T

5GbE
CAT 5e

5GbE
CAT 5e

QXG-10G2T

QXG-10G2T
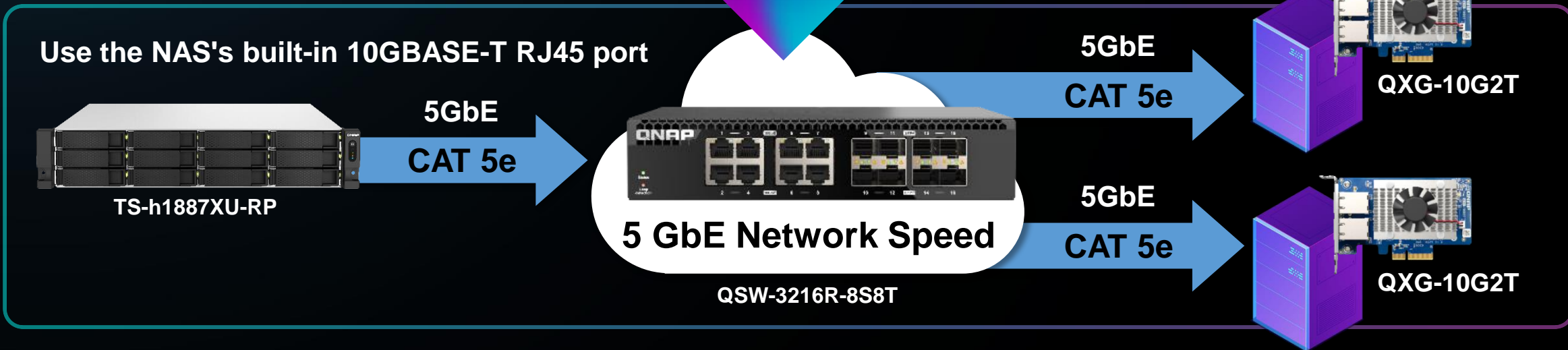
Many QNAP NAS Support 10GbE High-Speed Network Transmission

TVS-872XT

TS-h973AX

TS-855X

TVS-h1288X

TVS-h1688X

TS-h987XU-RP

TS-h1887XU-RP

TS-h2287XU-RP

TS-h3087XU-RP
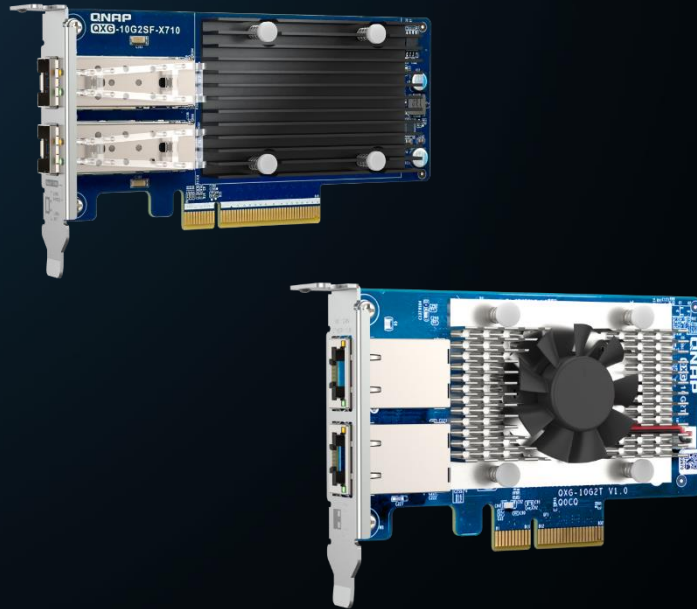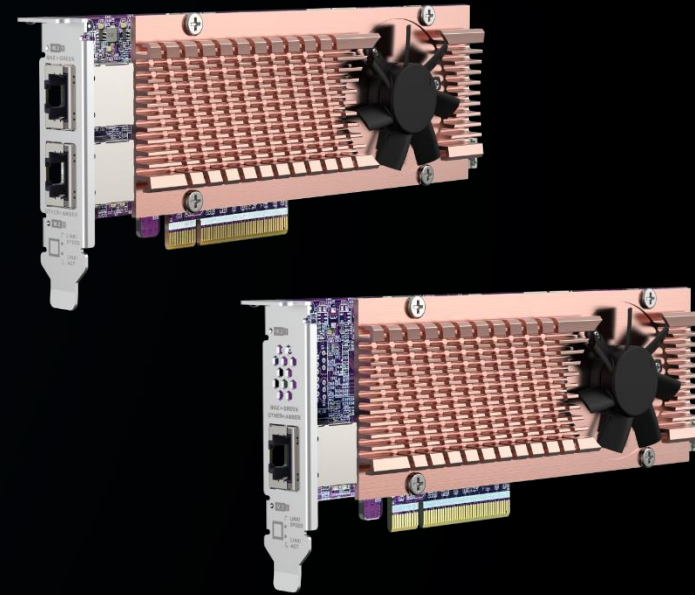
TS-h1283XU-RP

TS-h1683XU-RP

TBS-h574TX

More QNAP NAS with 10GbE High-Speed Network Transmission Support

QNAP 10GbE Network Expansion Cards

- QXG-10G2SF-X710 (SFP+ x2)
- QXG-10G2T-X710 (RJ45 x2)
- QXG-10G2TB (RJ45 x2)
- QXG-10G2T (RJ45 x2)
- QXG-10G1T (RJ45 x2)

QXG 10GbE Network Card

- QM2-2P410G2T (RJ45 x2)
- QM2-2P410G1T (RJ45 x2)
- QM2-2P10G1TB (RJ45 x2)

**QM2 M.2 SSD/10GbE
PCIe Expansion Card**

QNAP QNA Series 10GbE Network Adapters

THUNDERBOLT™

Host with **Thunderbolt 3**
- 10G/1G 2-speed
- SFP+ fiber port

QNA-T310G1S

Host with **Thunderbolt 3**
- 10G/5G/2.5G/1G/100M 5-speed
- RJ-45 NBASE-T Ethernet port

QNA-T310G1T

Note: The QNA series of network adapters also support Thunderbolt 4.

QNAP Provides Complete 10GbE Accessories

- CAB-DAC15M-SFPP (1.5m)
- CAB-DAC30M-SFPP (3m)
- CAB-DAC50M-SFPP (5m)

10GbE SFP+ DAC

TRX-10GITSFPP-SR

10GbE SR Transceiver

QNAP

QSW-3216R-8S8T

Half-width Rackmount 16-Port 10GbE
Unmanaged Switch
Fast Deployment of High-Speed Network
Environment for SMB/SOHO !

RJ45
8 x RJ45

SFP+
8 x SFP+

Loop
Protection