

# QM2-2P410G1T QM2-2P410G2T QM2-2P10G1TB

Dual-Port QM2 PCIe Cards  
with M.2 2280 NVMe SSD  
Slots and 10GbE Ports

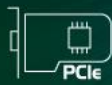
for NAS/PC



M.2 NVMe  
SSD  
2 x M.2 PCIe  
NVMe SSD



10GbE



PCIe 4.0  
PCIe 3.0

QTS  
QuTS hero

QTS/QuTS hero



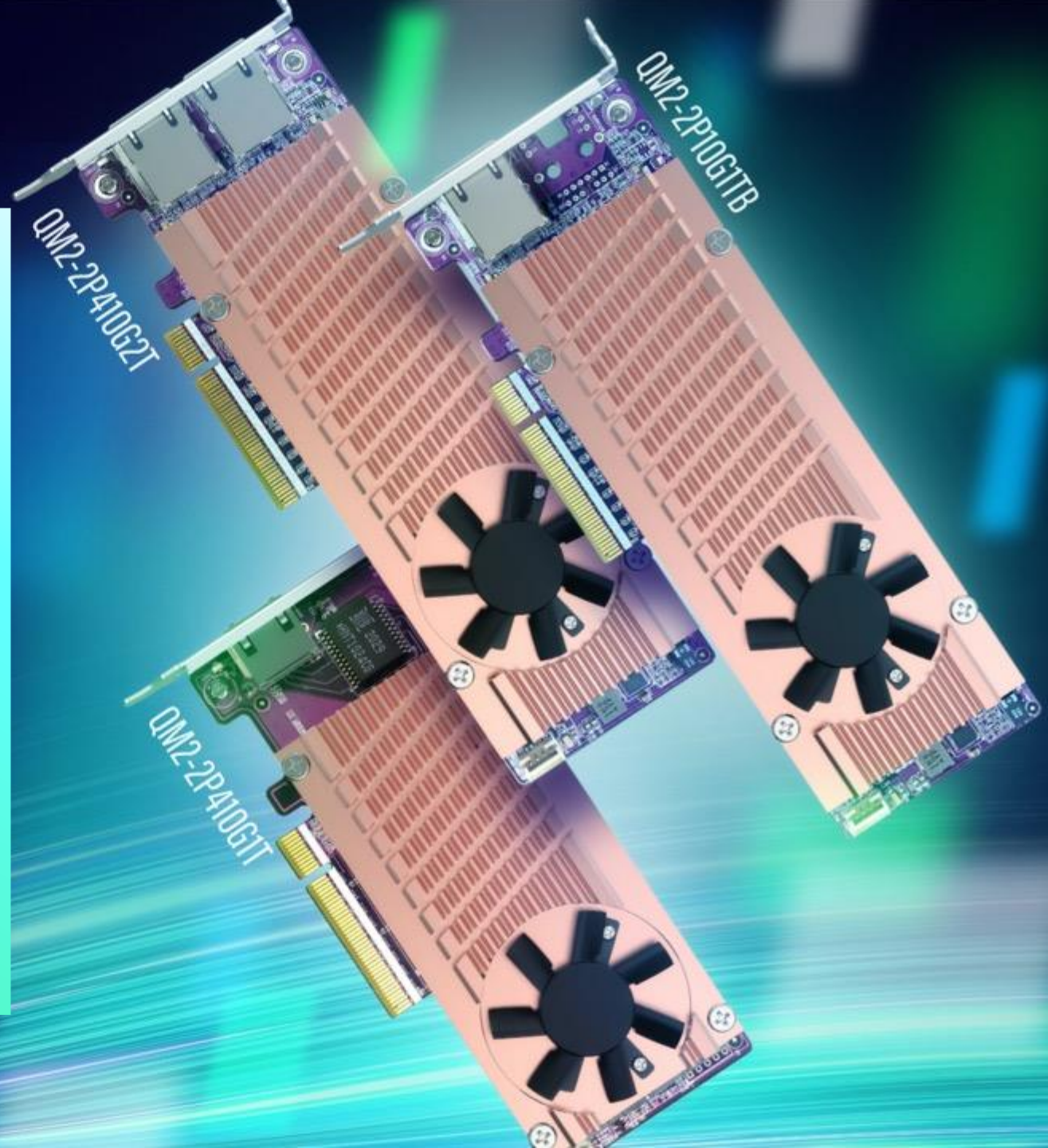
Windows 10 /  
Windows Server



Linux



- Brand new QM2 M.2 PCIe NVMe SSD & 10GbE combo cards
- New PCIe Gen4 QM2 product line
- Add both M.2 SSD and 10GbE via a single PCIe slot
- Support NAS (QTS 、 QuTS hero), Linux and Windows
- QNAP high-speed ecosystem



# Add M.2 NVMe or M.2 SATA SSDs with the QM2 card series

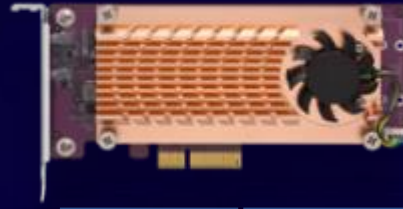
2 x  
M.2 SSD

QM2-2S-220A



PCIe Gen2 SATA

QM2-2P-244A



PCIe Gen2 PCIe NVMe

QM2-2P-344



PCIe Gen3 PCIe NVMe

QM2-2P-384



PCIe Gen3 PCIe NVMe

4 x  
M.2 SSD

QM2-4S-240



PCIe Gen2 SATA

QM2-4P-284



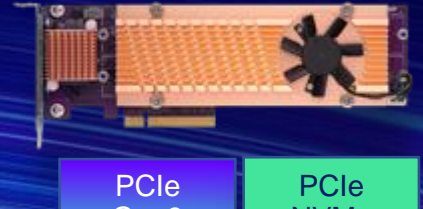
PCIe Gen2 PCIe NVMe

QM2-4P-342



PCIe Gen3 PCIe NVMe

QM2-4P-384

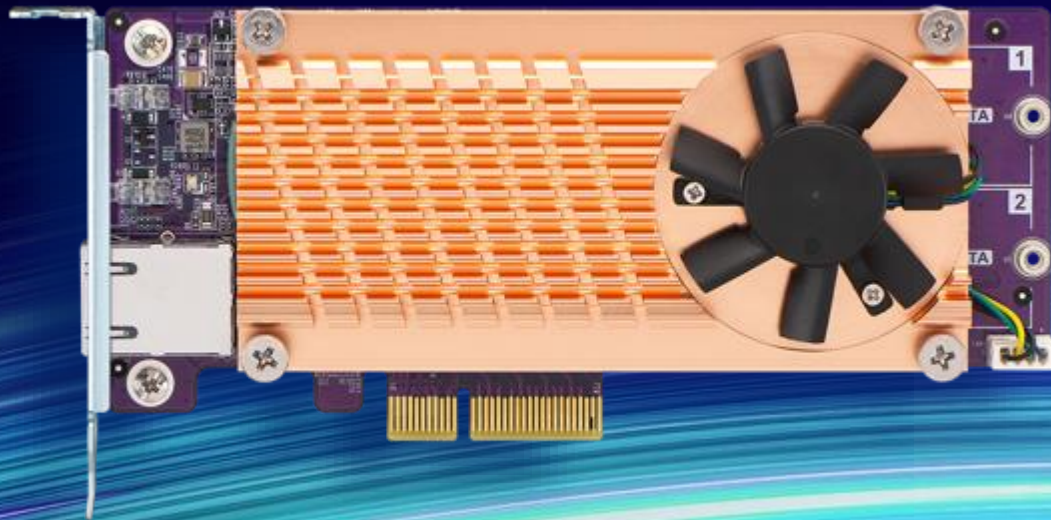


PCIe Gen3 PCIe NVMe

# Add both M.2 SSD and 10GbE / 2.5GbE with the QM2 combo card series

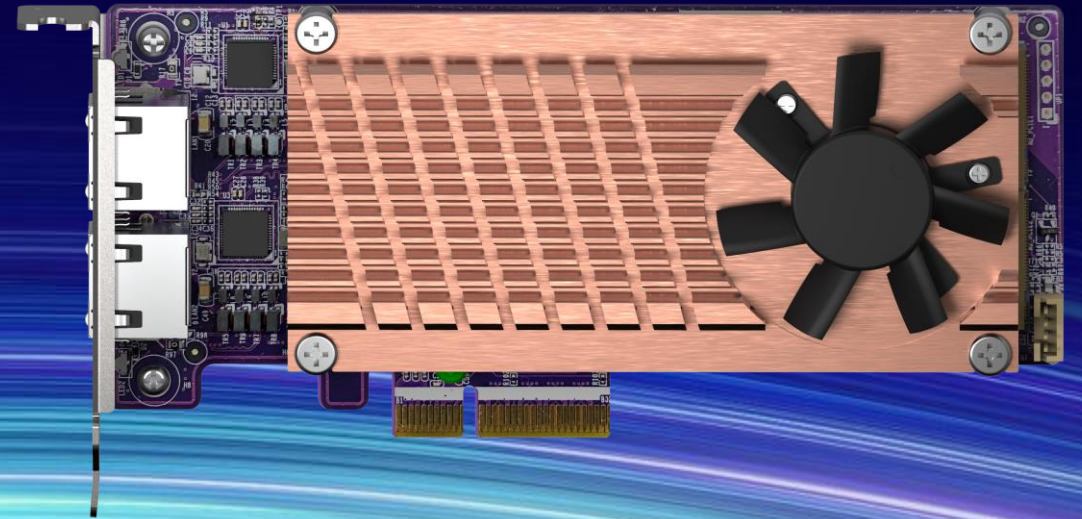
## QM2-2S10G1TA

2 x M.2 SATA 6Gbps SSD  
1 x 10GBASE-T



## QM2-2P2G2T

2 x M.2 PCIe Gen3 x4 NVMe SSD  
2 x 2.5GbE BASE-T



# Free up a PCIe slot on NAS for other expansion cards

QM2 combo card series only uses a single PCIe slot and gives you both Ethernet and M.2 SSD storage expansion. Another slot can be used for capacity expansion purpose with SAS and SATA expansion cards & JBOD enclosures.

## TS-1273AU-RP



### QNAP SAS HBA



QXP-1620S-B3616W



QXP-820S-B3408

### QNAP SATA HBA



QXP-400eS-A1164



QXP-800eS-A1164



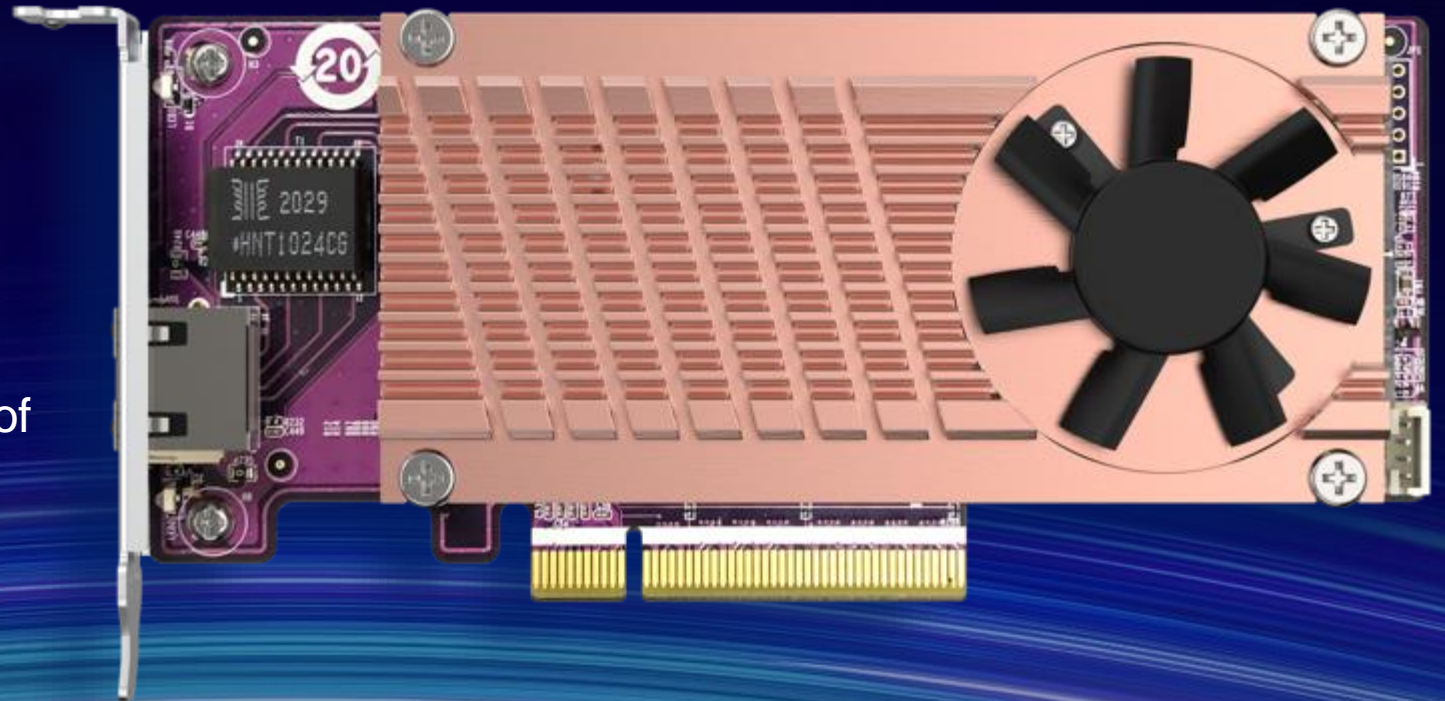
QXP-1600eS

# Brand new QM2-2P10G1TB with PCIe Gen3 speed and lower power consumption

**NEW!**

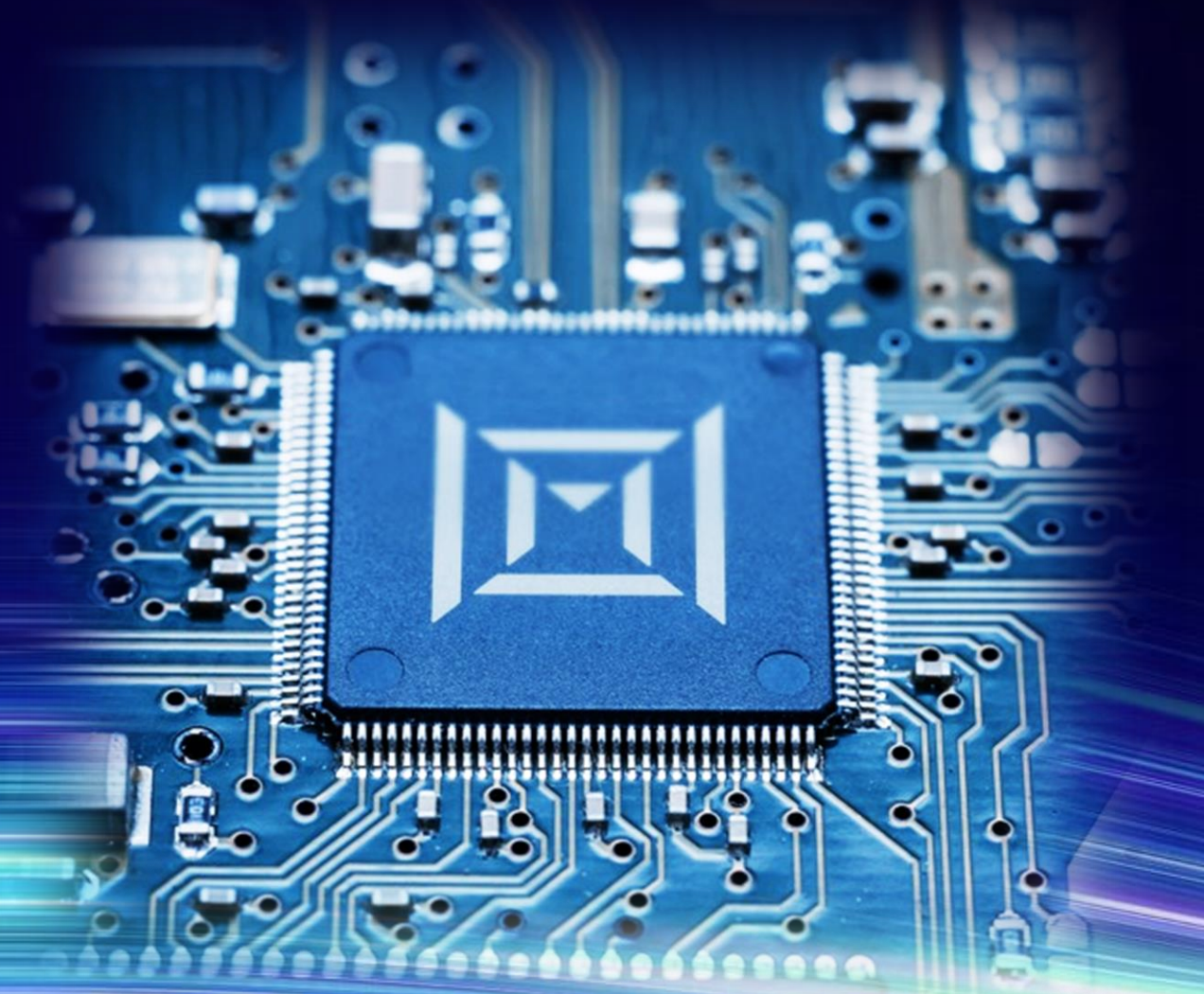
- Upgrade to PCIe **Gen3 x8** (Compared to the previous generation with PCIe Gen2: QM2-2P10G1TA)
- High-efficiency IC – Marvell AQtion Ethernet Controller **AQC113C** (1/2 of power consumption)
- **Tool-less** M.2 PCIe device (SSD, TPU) installation

**QM2-2P10G1TB**



# The new Marvell AQC113C 10GbE controller with multi-gig speed and lower power consumption

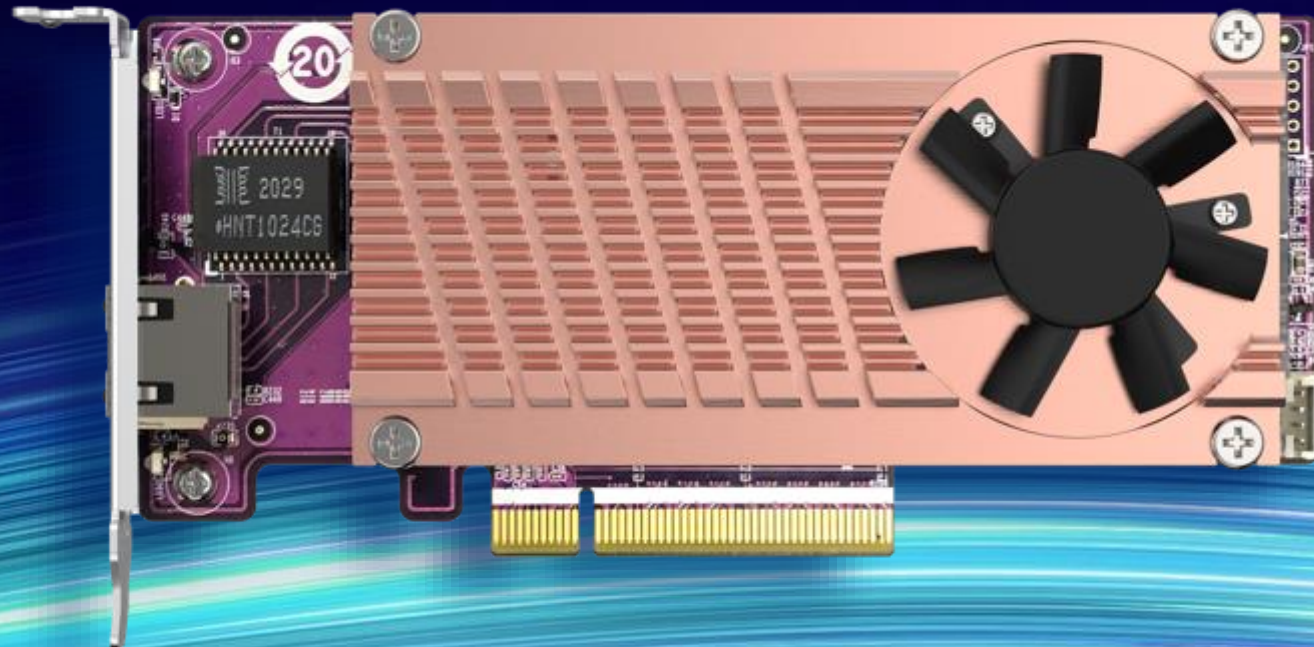
- Only  $\frac{1}{2}$  of power consumption compared to the last-gen AQC107
- 10Gb/5Gb/2.5Gb/1Gbps and 100Mbps RJ45 connectivity
- 25 Years of leading IC design experience, reliable and high efficiency Networking, Storage and Computing solution provider.



# Support dual M.2 PCIe Gen3 NVMe SSD + 10GbE 10GBASE-T multi-gig speed

## QM2-2P10G1TB

- 2 x M.2 2280 PCIe Gen3 x4 NVMe SSD slots
- Total bandwidth: PCIe Gen3 x8

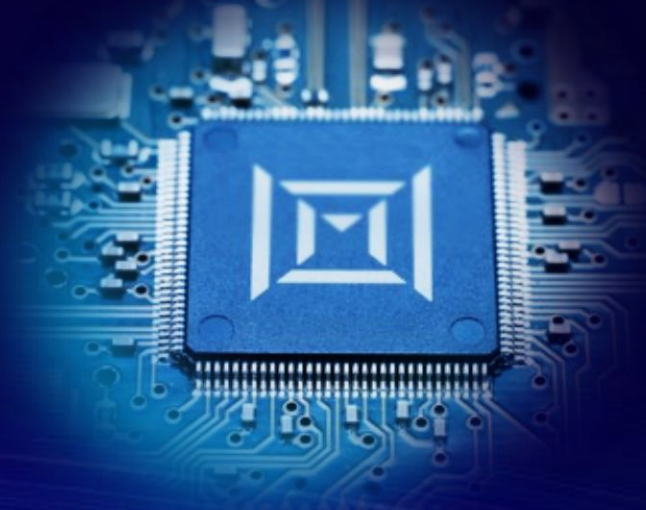


### Supplied with

Full-height &  
half-height flat bracket

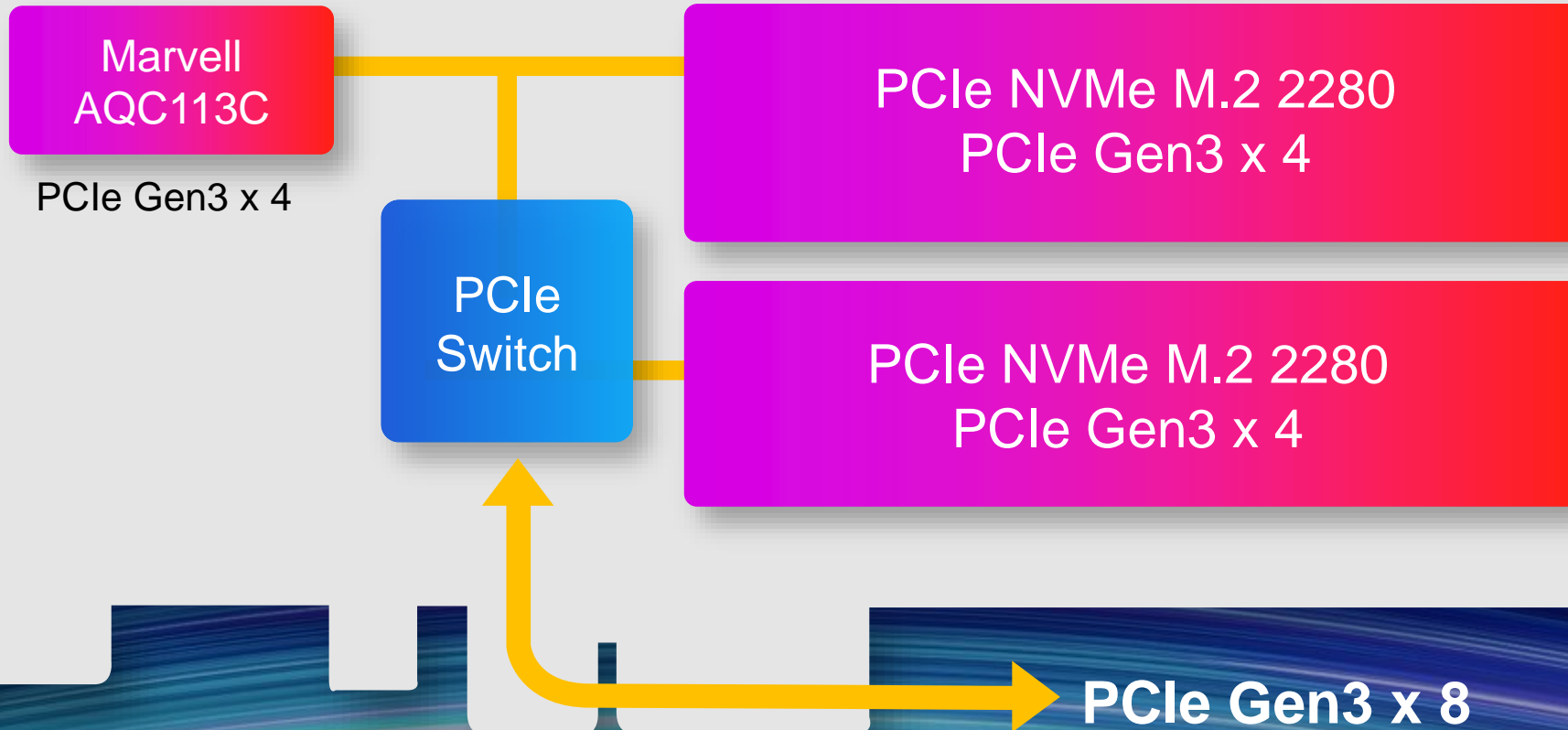


### Marvell AQC113C 10GBASE-T

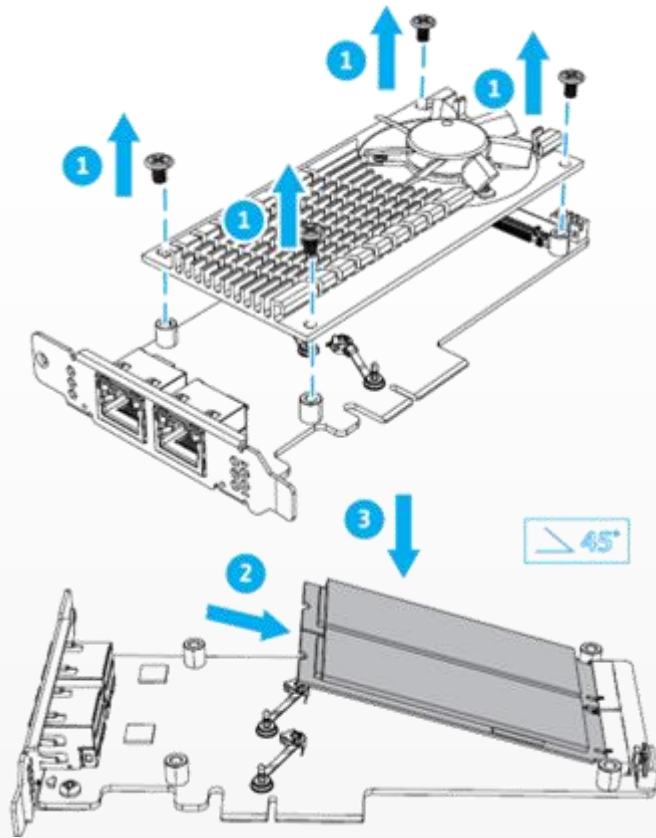




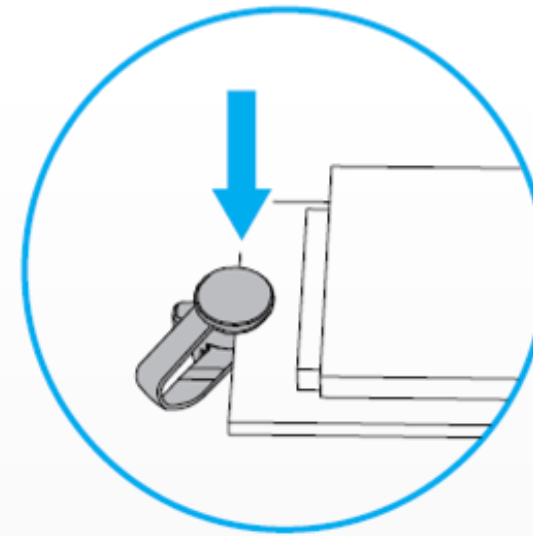
# QM2-2P10G1TB design diagram



# Toolless installation of M.2 NVMe SSDs



Note: a screwdriver is required to remove the heatsink module.



**Click to install**

Quick & easy to install the M.2 NVMe SSDs, without any screws!

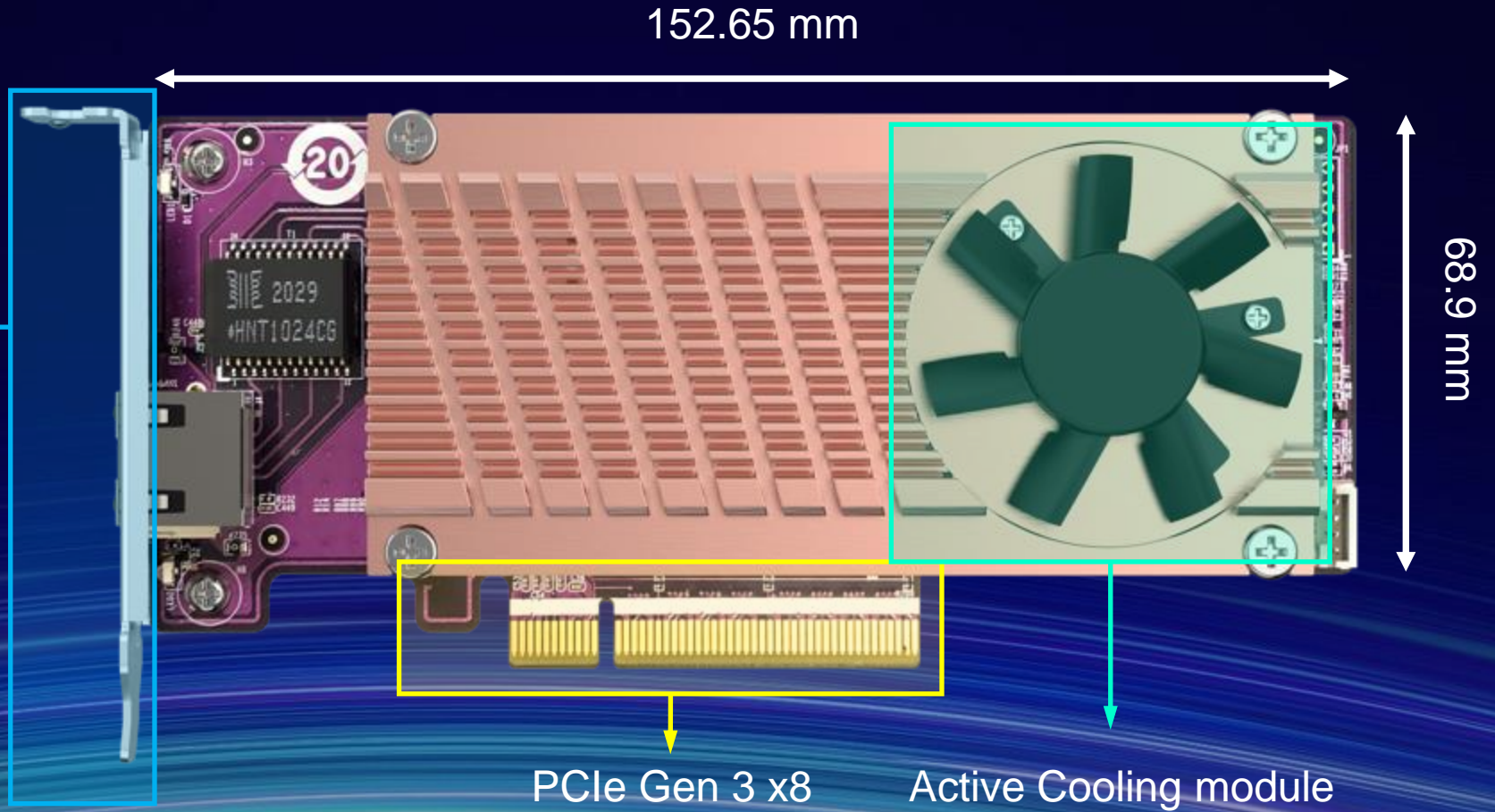
# QM2-2P10G1TB

Half-height low profile design with active cooling module, fits every chassis

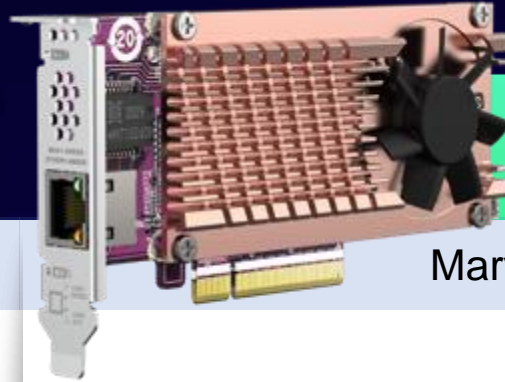
Preinstall half-height bracket

**Supplied with**

Full-height & half-height flat  
bracket



# Specification of QM2-2P10G1TB



## QM2-2P10G1TB

<b>Ethernet controller</b>	Marvell AQC113C; 5-speed
<b>LAN port count</b>	1 x 10GBASE-T
<b>M.2 SSD</b>	2 x M.2 2280 PCIe Gen3 NVMe SSD slots
<b>PCIe total bandwidth</b>	Gen3 x8
<b>Dimensions</b>	152.65 x 68.9 x 18.9 (mm)
<b>Transmission speed</b>	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps
<b>Supported OS</b>	<ul style="list-style-type: none"><li>• QTS/QuTS hero 4.5.3 or later</li><li>• Windows 10、11 (64bit)</li><li>• Linux</li></ul> <a href="#">Drivers</a> are required for Windows and Linux
<b>Package content</b>	1 x QM2 ; 1 x QIG ; 3 x bracket (pre-installed half-height bracket)

# Your best partner !

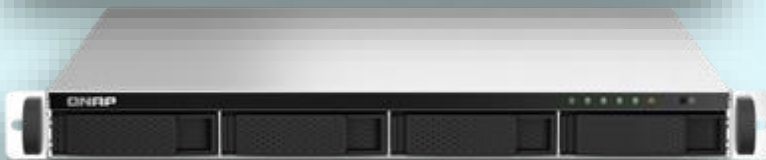
## Upgrade your NAS with QM2



**TS-464eU**



**TS-1264U-RP**



**TS-464U**  
**TS-464U-RP**



**TS-864eU**  
**TS-864eU-RP**

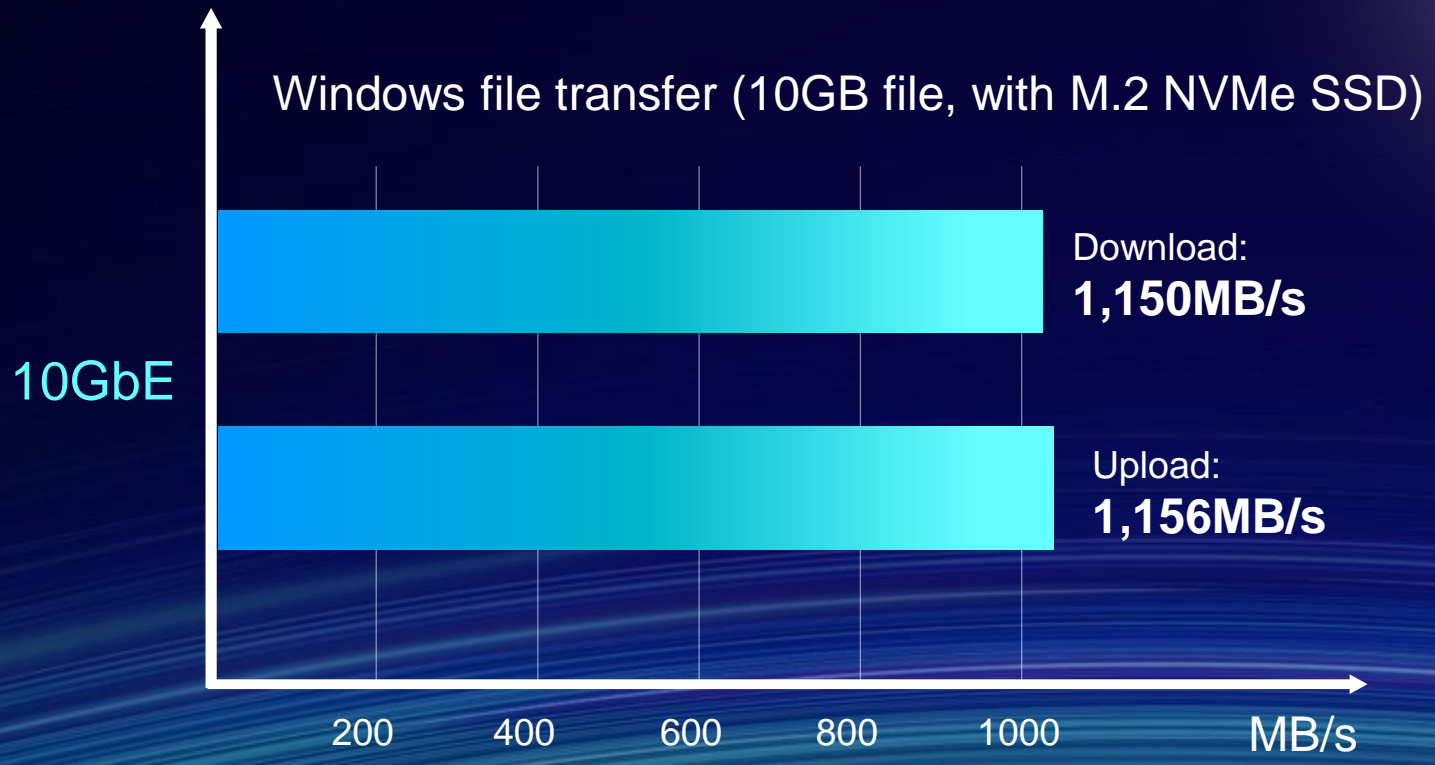


**TS-673A**



**TS-873A**

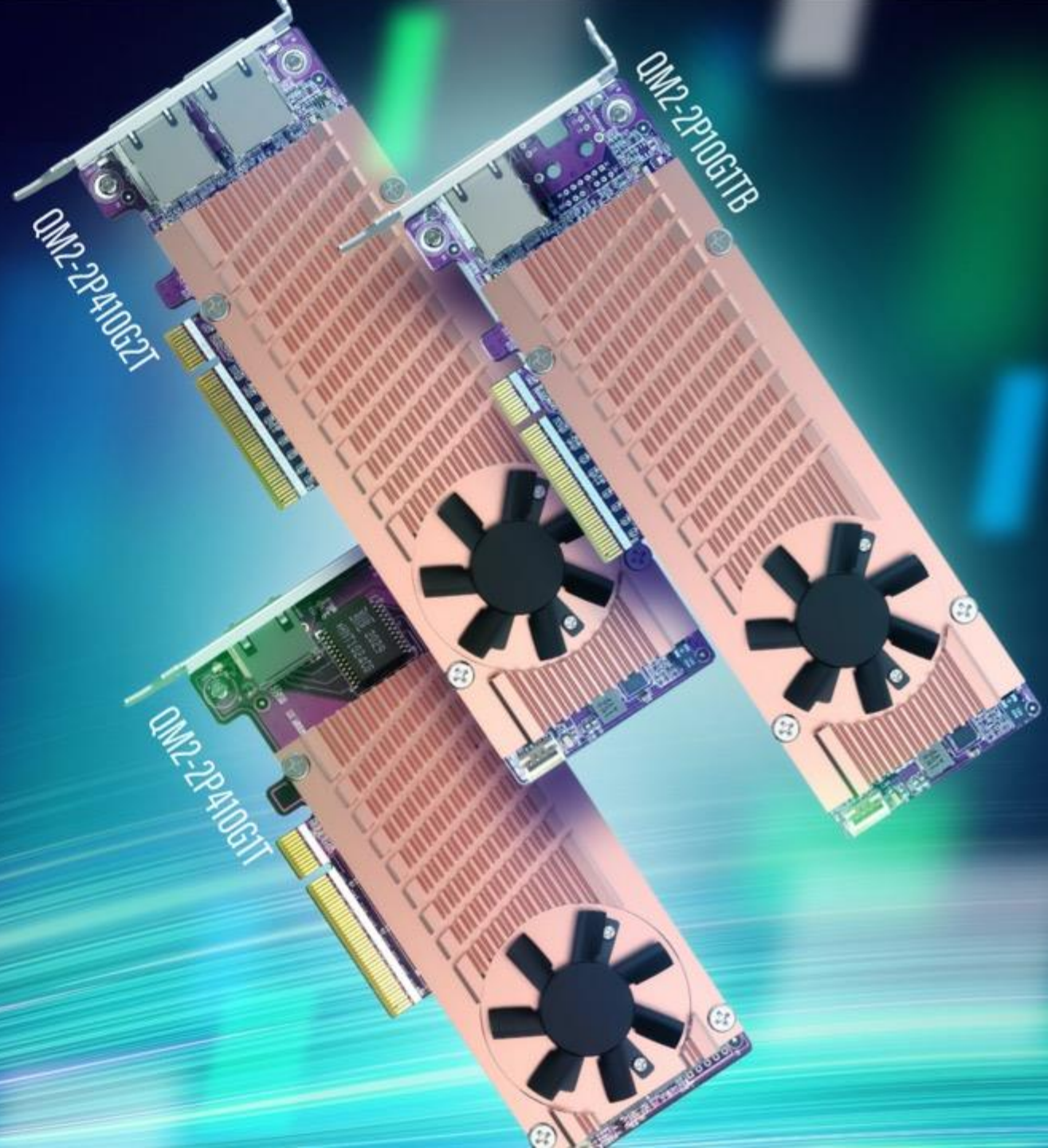
# QM2-2P10G1TB 10GbE transfer speed with M.2 NVMe SSD



Tested in QNAP Lab :  
PC: Intel® Core™ i7-6700 3.40GHz. Windows Server 2019. 64 GB memory. 10GbE NIC:X550  
NAS:  
TVS-1282T, 4.5.3.1275, Samsung SSD850 Pro 512GB x 6 (RAID 0), 32 GB(8GB\*4) memory, 10GbE NIC: QM2-2P10G1TB

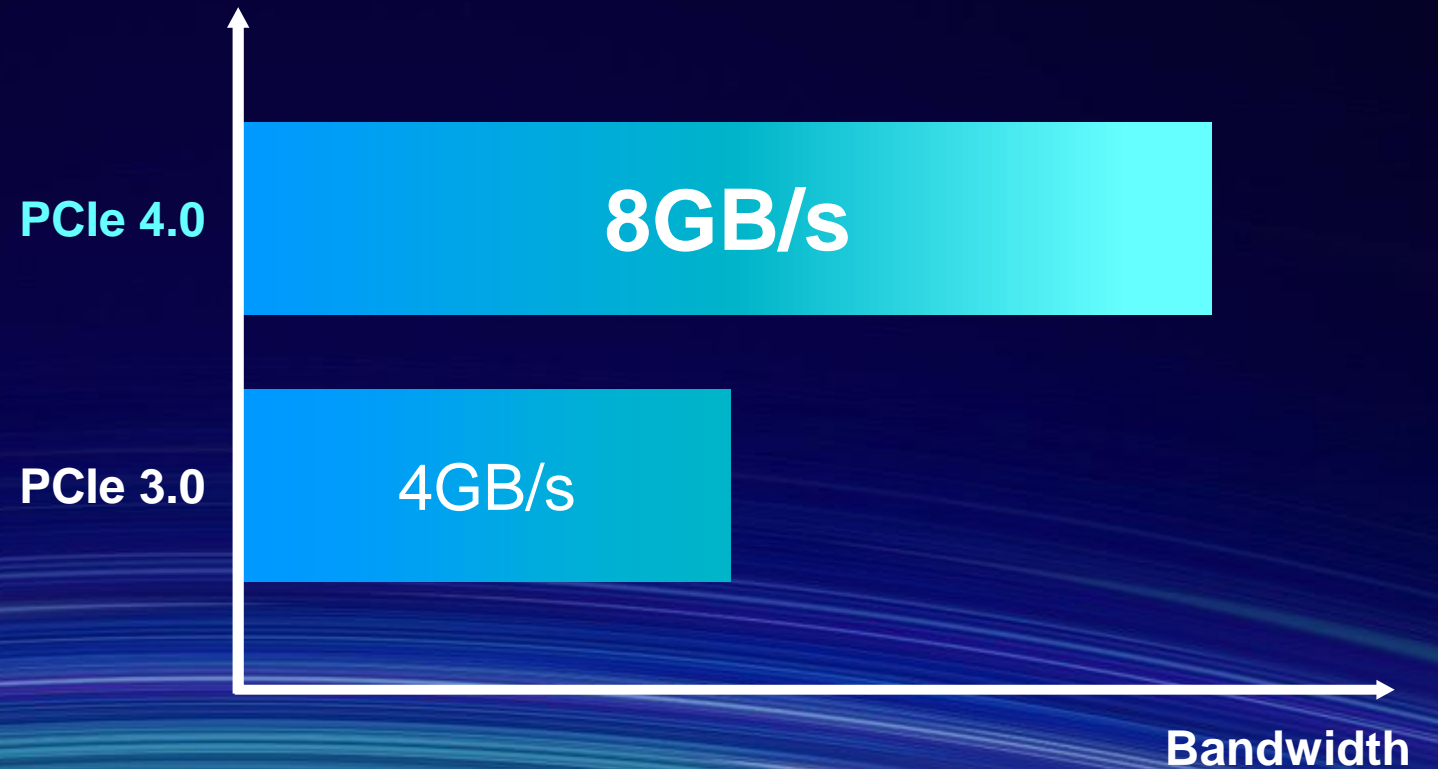


# LIVE DEMO



# PCIe Gen4 NVMe M.2 SSD is getting popular on market in 2022

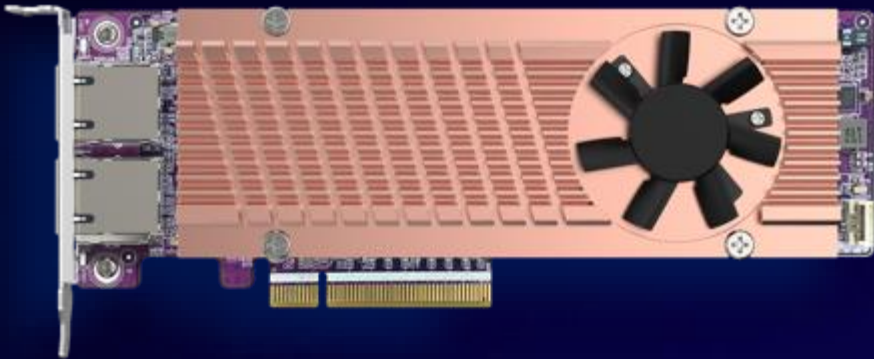
Most of M.2 SSD are moving to PCIe NVMe these years, Seagate、WD、Samsung have announced PCIe Gen4 M.2 SSD, provides PCIe Gen4 x4 per M.2 SSD for over 7000MB/s performance. It helps you to expand storage on your NAS, PC and laptop with QM2 series.





# New PCIe Gen4 QM2 combo series

## Dual M.2 PCIe Gen4 NVMe SSD + 1 or 2-port 10GbE

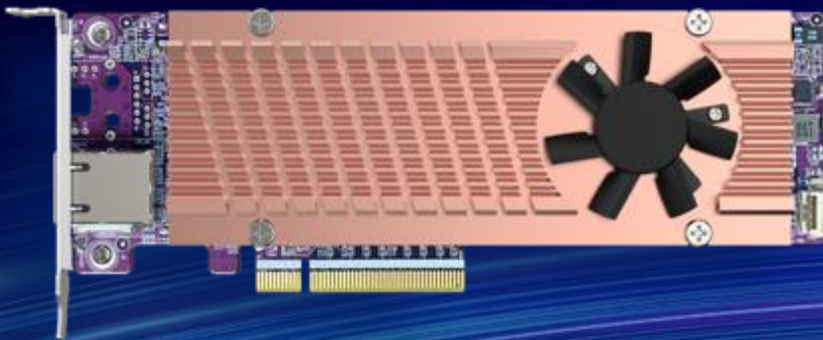


### QM2-2P410G2T

- 2 x M.2 2280 PCIe Gen4 x4 NVMe SSD slots
- Bandwidth: PCIe Gen4 x8
- 2 x 10GBASE-T

### Supplied with

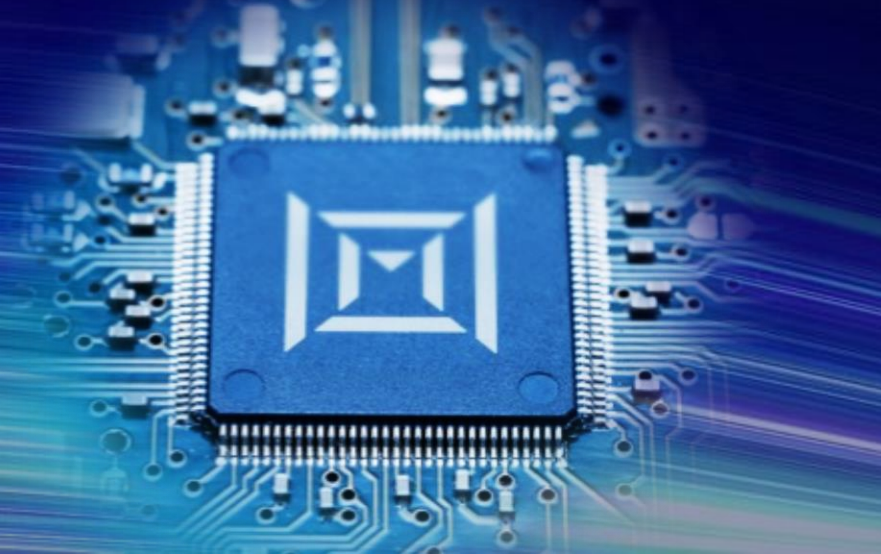
Full-height & half-height flat bracket



### QM2-2P410G1T

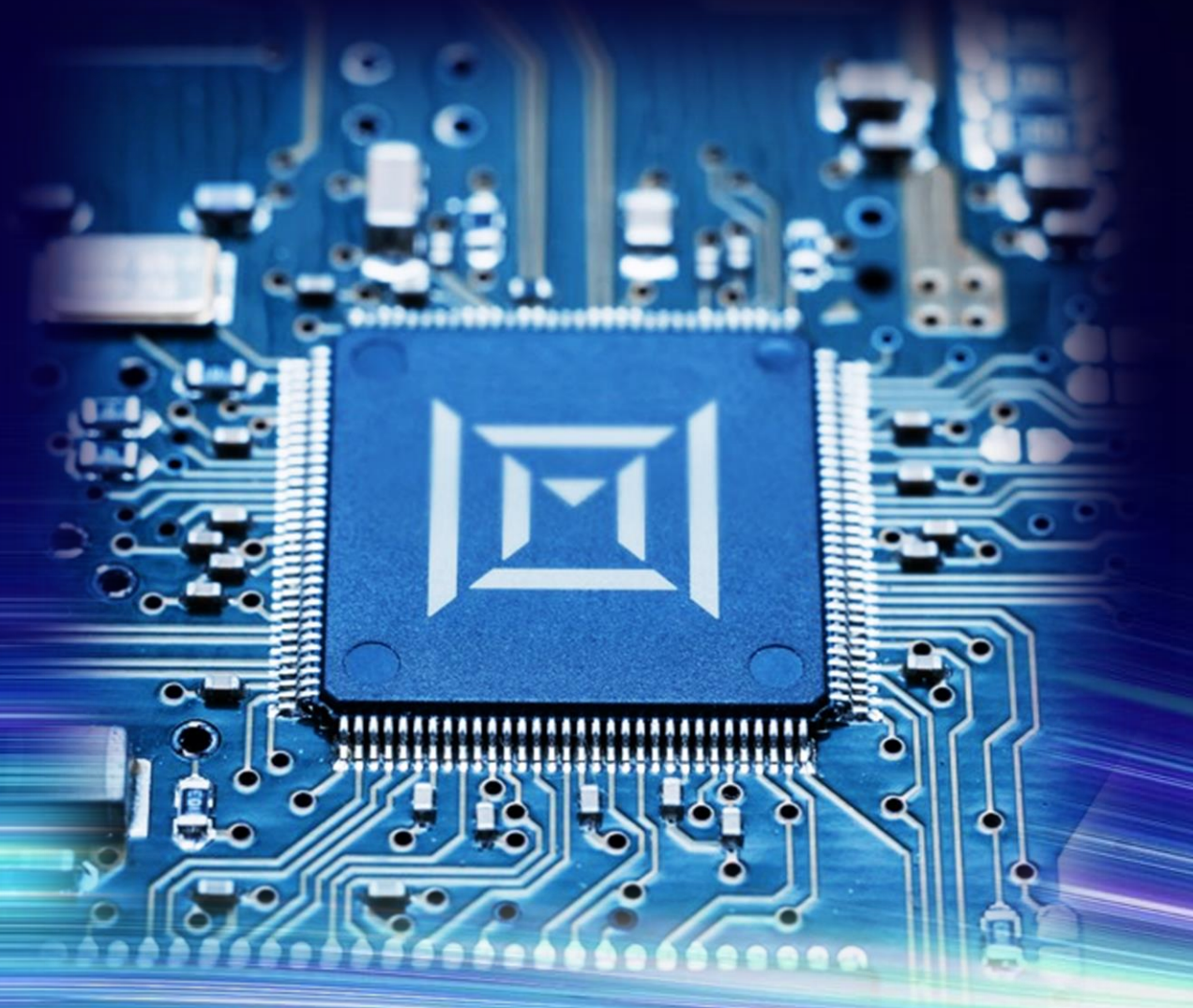
- 2 x M.2 2280 PCIe Gen4 x4 NVMe SSD slots
- Bandwidth: PCIe Gen4 x8
- 1 x 10GBASE-T

### Marvell AQC113C

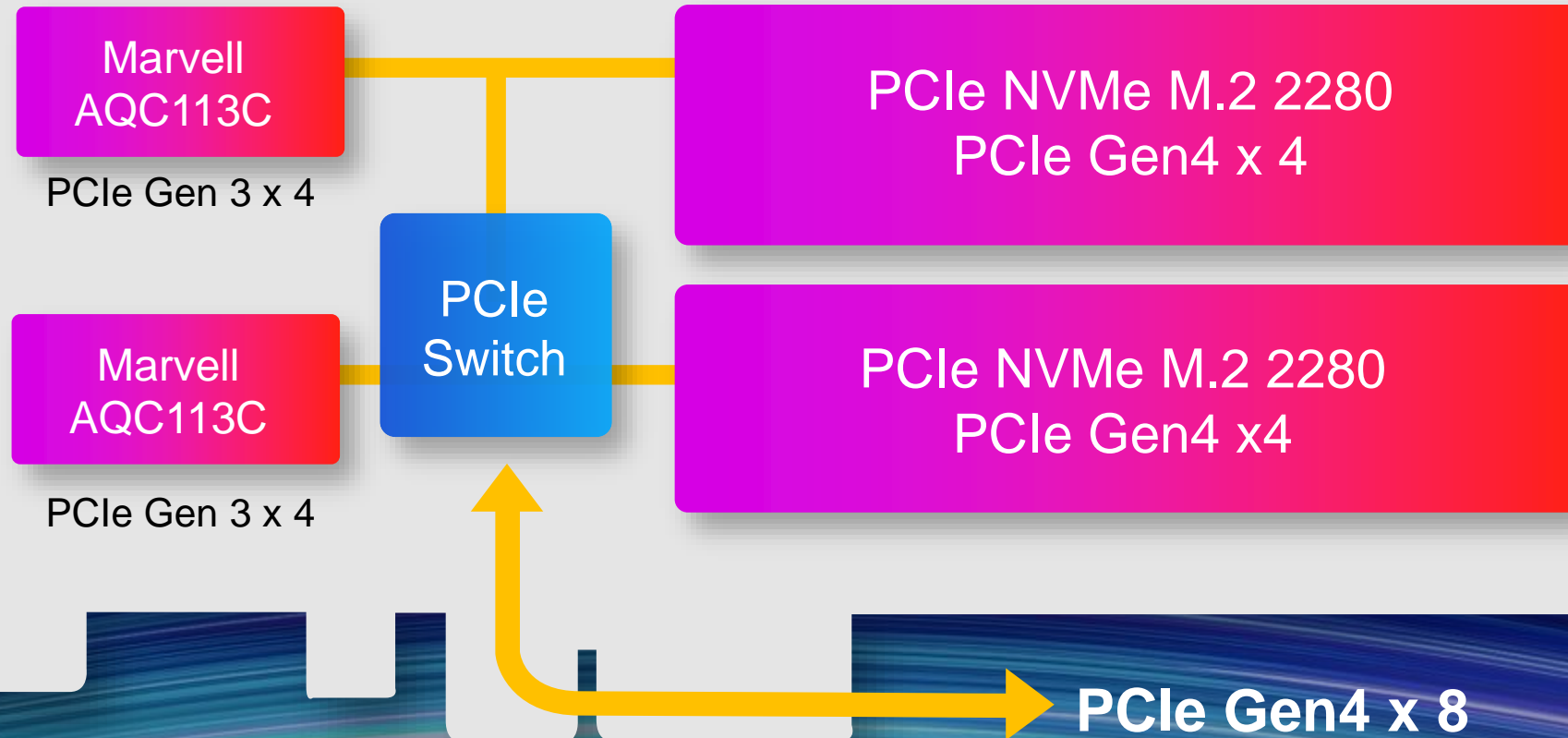


# The new Marvell AQC113C 10GbE controller with multi-gig speed and lower power consumption

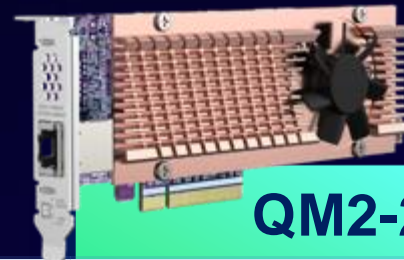
- Only  $\frac{1}{2}$  of power consumption compared to the last-gen AQC107
- 10Gb/5Gb/2.5Gb/1Gbps and 100Mbps RJ45 connectivity
- 25 Years of leading IC design experience, reliable and high efficiency Networking, Storage and Computing solution provider.



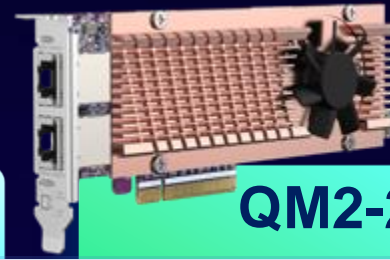
# QM2-2P410G1T and QM2-2P410G2T design diagram



# Specifications of the PCIe Gen4 QM2 combo cards



**QM2-2P410G1T**



**QM2-2P410G2T**

<b>Ethernet controller</b>	Marvell AQC113C; 5-speed	
<b>10GbE port</b>	1 x 10GBASE-T	2 x 10GBASE-T
<b>PCIe total bandwidth</b>	Gen4 x8	
<b>M.2 SSDs</b>	2 x M.2 PCIe Gen4 x4 NVMe slots (compatible with PCIe Gen3 SSDs)	
<b>Dimensions</b>	187 x 68.9 x 19.35 mm	
<b>Transmission speed</b>	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps	
<b>Supported OS</b>	<ul style="list-style-type: none"> <li>• QTS/QuTS hero 5.0 or later</li> <li>• Windows 10 、 11 (64bit)</li> <li>• Linux</li> </ul> <a href="#">Drivers</a> are required for Windows and Linux	
<b>Package content</b>	1 x QM2 ; 1 x QIG ; 3 x bracket (pre-installed half-height bracket)	

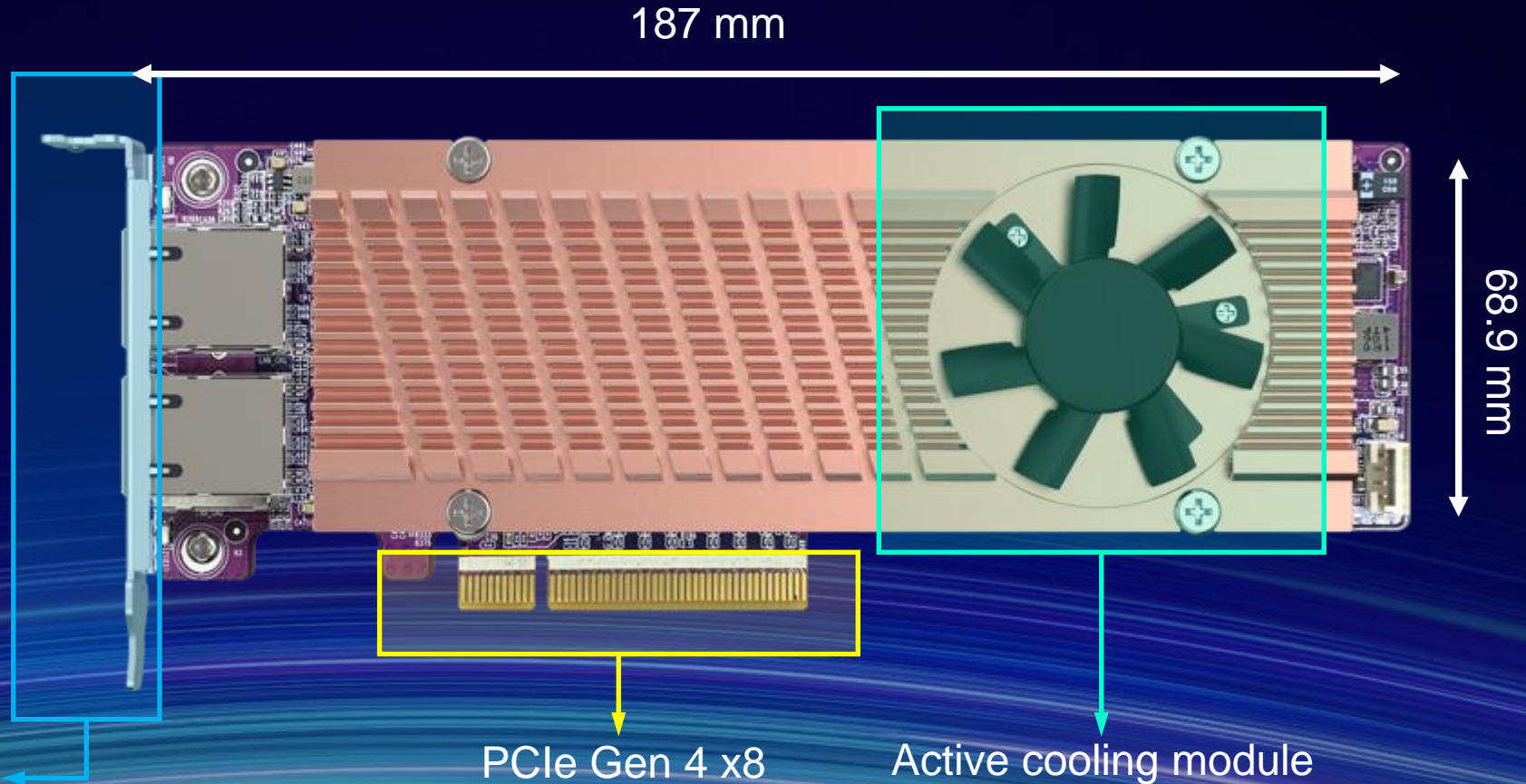
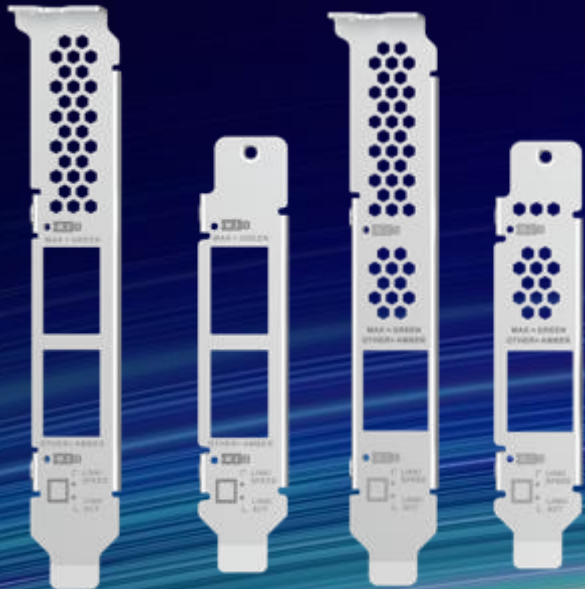
# QM2-2P410G1T / QM2-2P410G2T

Half-height low profile design with active cooling module, fits every chassis

Pre-installed Low-profile bracket

Supplied with

Full-height & half-height flat bracket



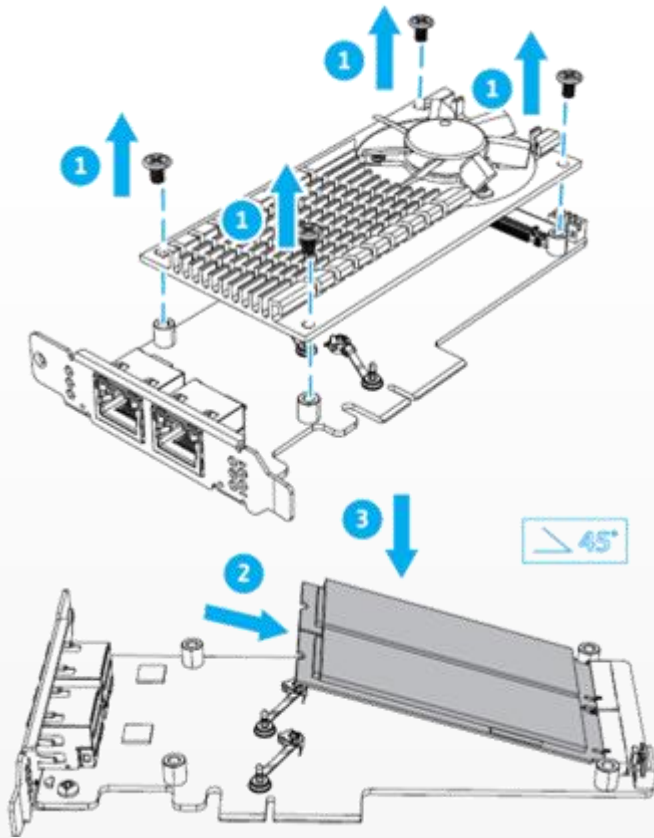
187 mm

68.9 mm

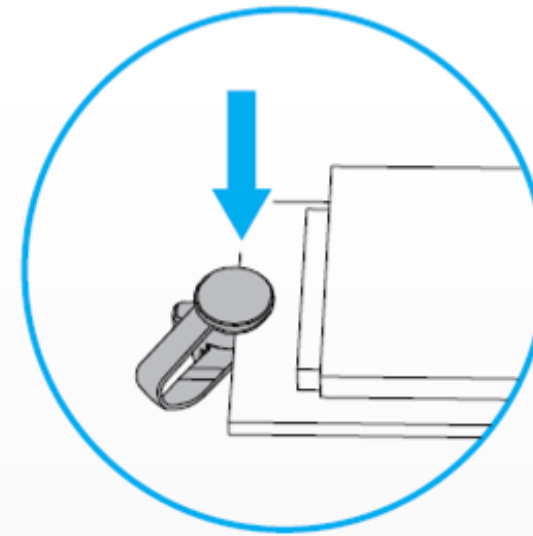
PCIe Gen 4 x8

Active cooling module

# Toolless installation of M.2 NVMe SSDs



Note: a screwdriver is required to remove the heatsink module.



**Click to install**

Quick & easy to install M.2 NVMe  
SSDs, no screws needed!

# Support multiple operating systems such as QTS & QuTS hero, Windows, and Linux

QM2 cards not only support QNAP NAS OS - QTS & QuTS hero, but also support Windows 10/11 and Linux, brings you the high speed experience across different platforms.



**Support PC/Workstation**

Drivers are required for  
Windows and Linux  
<https://www.qnap.com/go/download>

**QTS / QuTS hero  
5.0 and later**

**Support NAS with PCIe**



**TDS-h2489FU**

New QNAP All-Flash-Array, with  
PCIe Gen4 U.2 SSD and PCIe  
Gen4 slots for expansion

# All flash NAS TS-h2490FU with PCIe 4.0 slots

## TS-h2490FU

- All Flash Array
- 24-bay U.2 PCIe Gen3 x4 drives
- AMD EPYC 7332P 8C/16T or EPYC 7202P 16C/32T
- 2 or 4 x 25GbE SFP28 Ethernet

AMD  
EPYC

Slot #1: PCIe Gen4 x4

Slot #2: PCIe Gen4 x8 or x4

Slot #3: PCIe Gen4 x4





# All flash NAS TDS-h2489FU with PCIe 4.0 slots

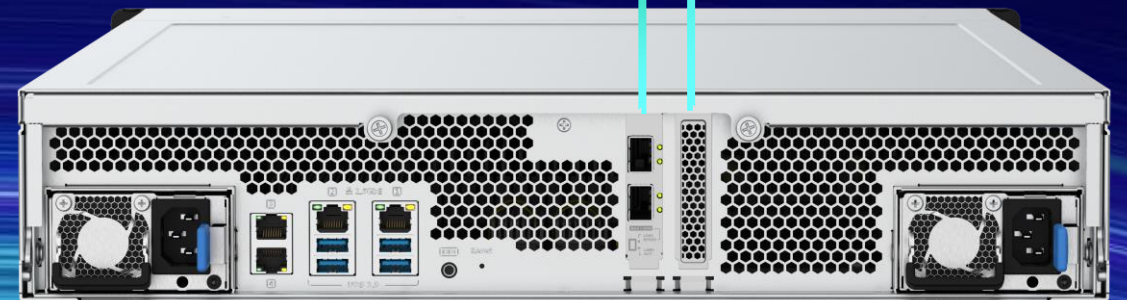
## TDS-h2489FU

- All Flash Array
- 24-bay U.2 PCIe Gen4 x4 drives
- Dual Intel® Xeon® Silver 8 or 16-core
- 2 x 25GbE SFP28 Ethernet

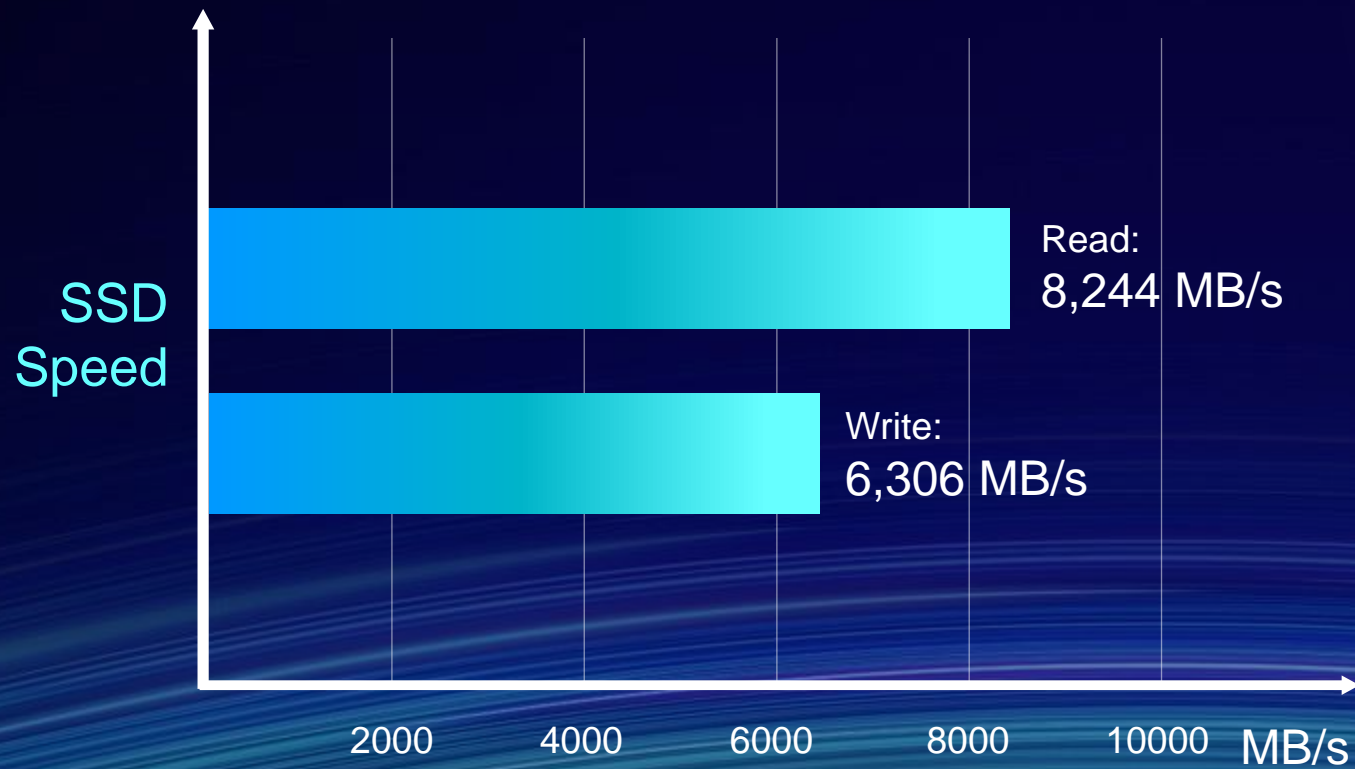


Slot #1: PCIe Gen4 x16 (x8 if slot 2 is used)

Slot #2: PCIe Gen4 x8



# Ultra fast performance with M.2 PCIe Gen4 NVMe SSDs



Tested in QNAP lab

Environment :

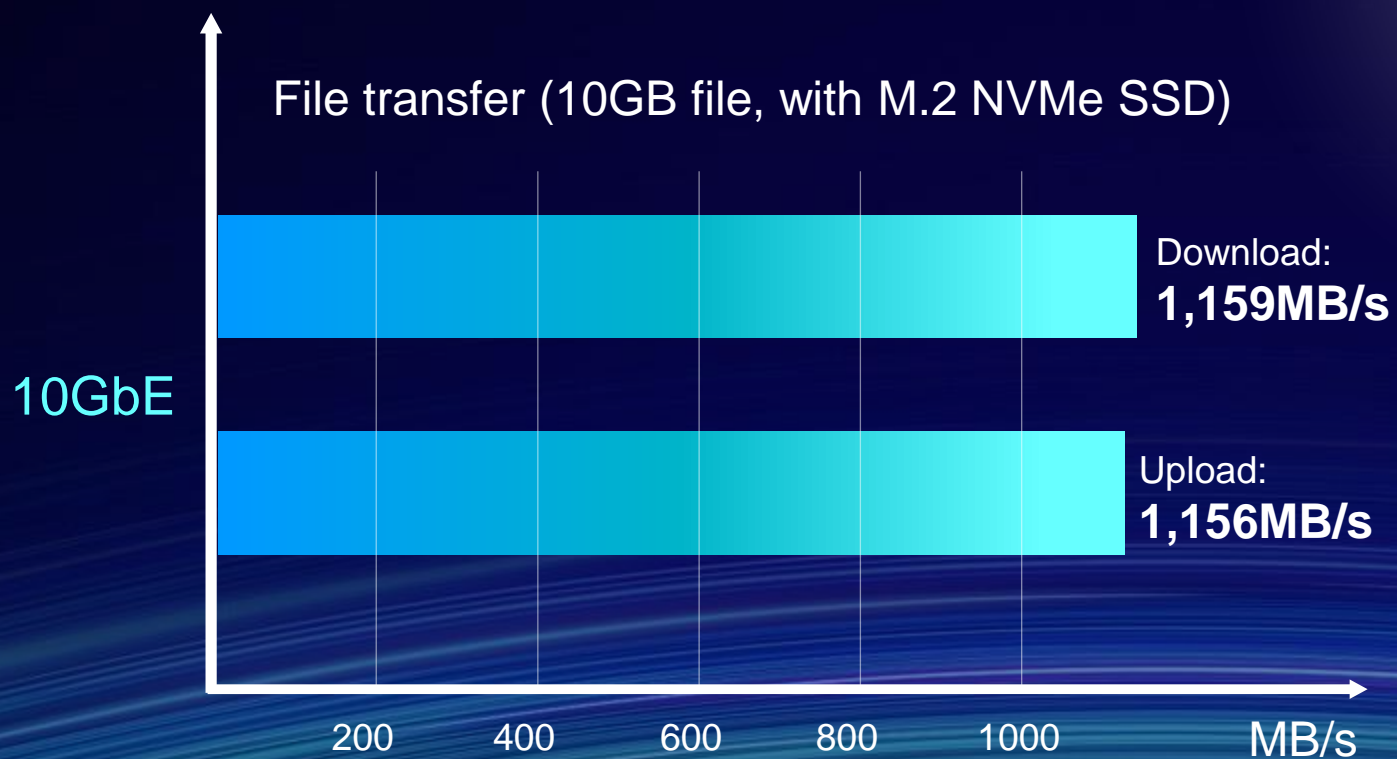
PC: Intel Core i7-6700; Windows 10; 64GB RAM;

10GbE NIC LAN-10G2T-X550

IronWolf 525 4TB x 2; RAID0



# Full 10GbE performance while accessing M.2 SSD on QM2-2P410G1T/ QM2-2P410G2T



Tested in QNAP lab

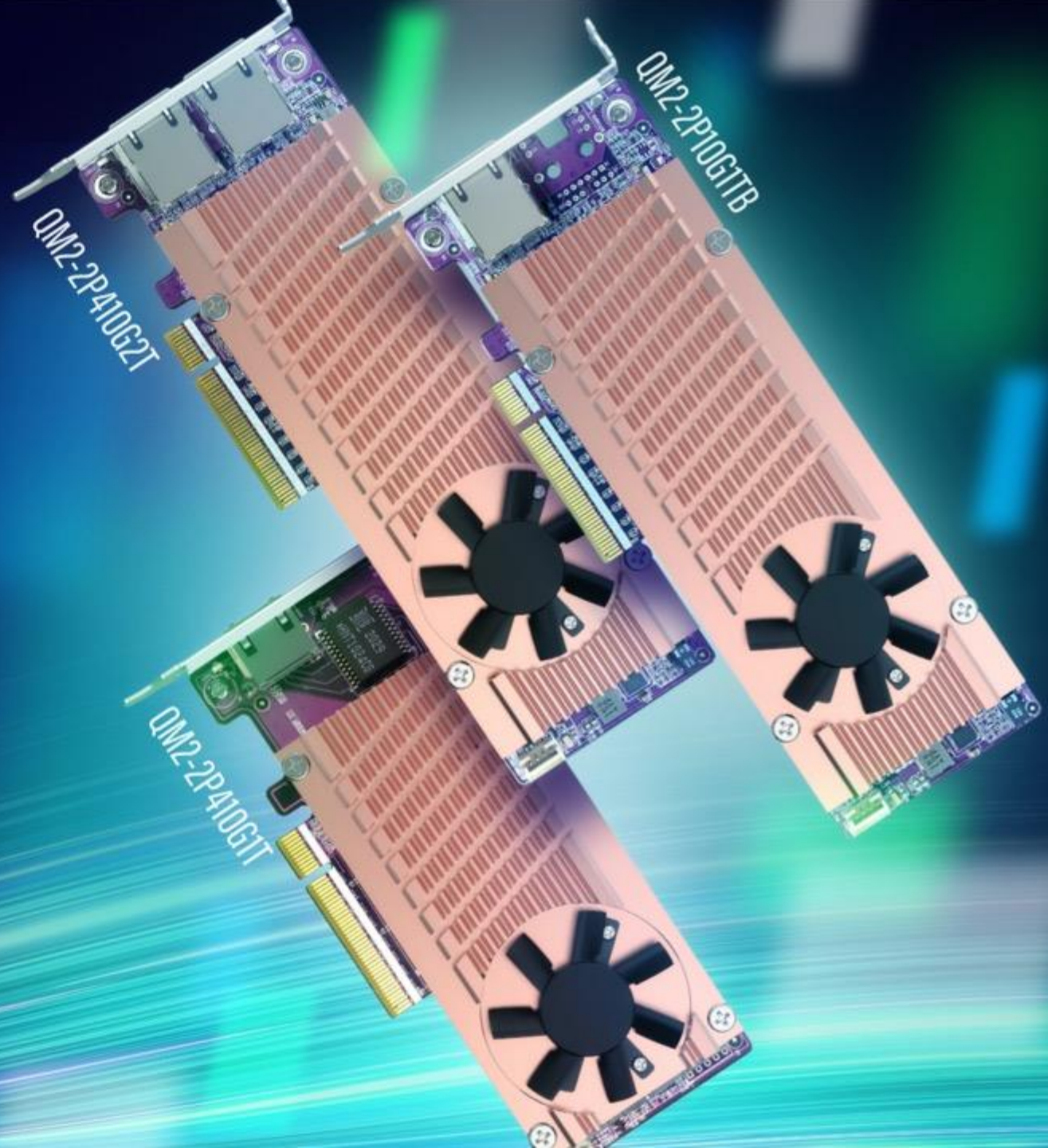
Environment :

PC: Intel Core i7-6700; Windows 10; 64GB RAM;  
10GbE NIC LAN-10G2T-X550

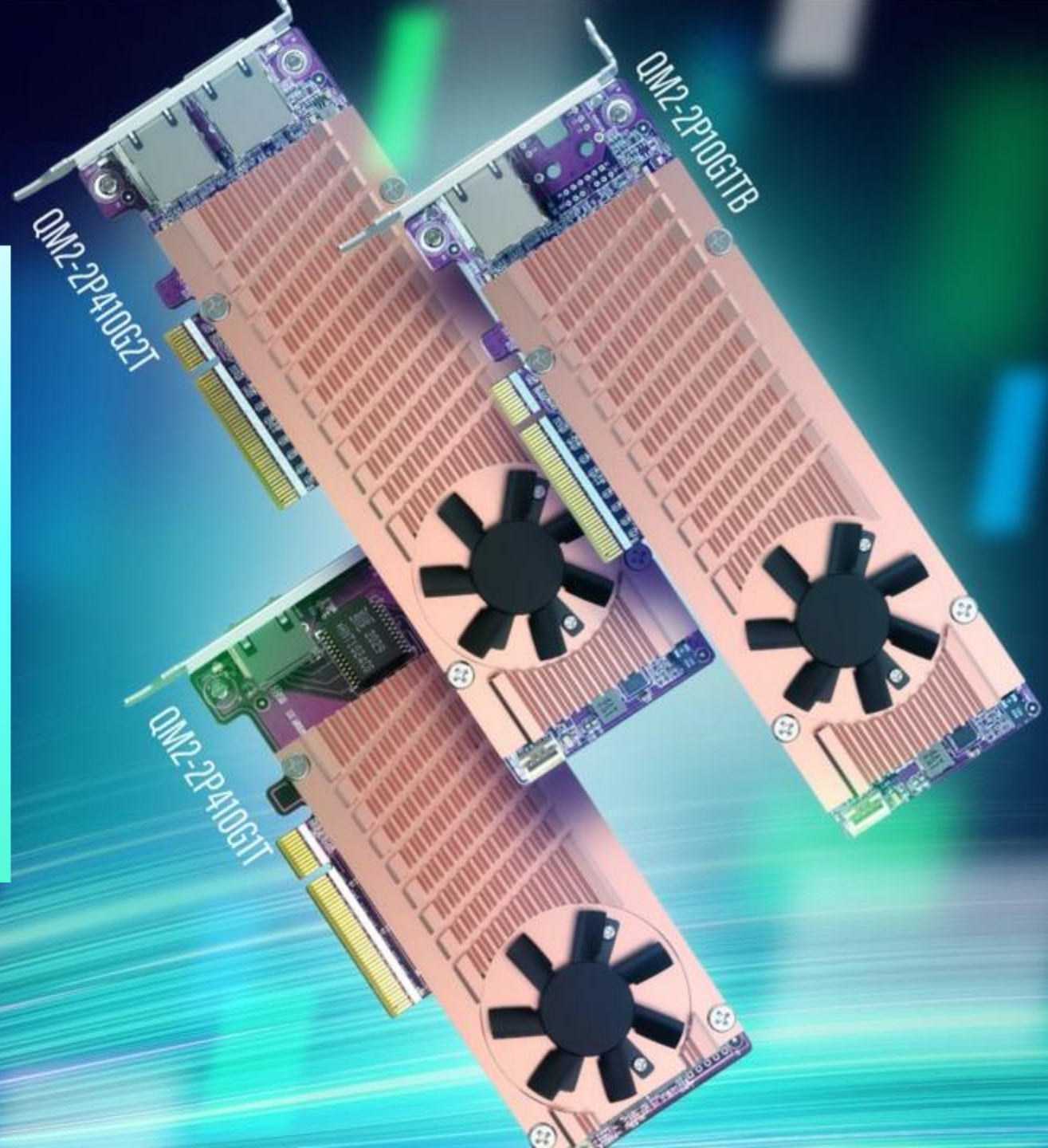
NAS: TS-h2490FU (AMD EPYC 7302P 16-core/32-  
thread; 32GB RAM; Install QM2-2P410G1T



# LIVE DEMO



# QNAP Multi-Gig NICs & Switches



# QNAP Multi-Gig NICs

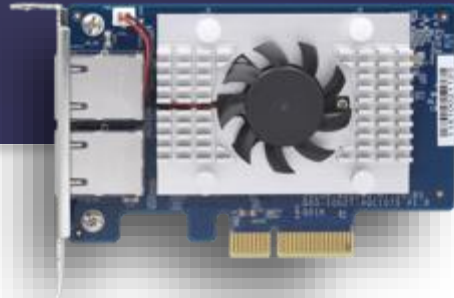
## 5-speed Multi-Gig



**QXG-10G1T**

- Marvell AQtion AQC107
- Single 10GbE NBase-T
- PCIe Gen3 x4
- Low Profile

**10GbE**



**QXG-10G2TB**

- Marvell AQtion AQC107
- Dual 10GbE NBase-T
- PCIe Gen3 x4
- Low Profile

## 25GbE



**QXG-25G2SF-CX6**

- NVIDIA Mellanox Connect-X 6 Lx
- Dual 25GbE SFP28 (compatible with 10GbE SFP+)
- PCIe Gen4 x8
- Low Profile

**25GbE**

# QNAP Multi-Gig NIC

## 4-speed Multi-Gig

**QXG-2G1T-I225**  
**QXG-2G2T-I225**  
**QXG-2G4T-I225**



- Intel I225LM
- 1/2/4-port 2.5GbE NBase-T
- PCIe Gen3 x1, Gen3 x2, Gen3 x4
- Low Profile

**2.5GbE**

## 4-speed Multi-Gig

**QXG-5G1T-111C**  
**QXG-5G2T-111C**  
**QXG-5G4T-111C**



- Marvell AQtion AQC111C
- 1/2/4-port 5GbE NBase-T
- PCIe Gen2 x1, Gen3 x2, Gen3 x4
- Low Profile

**5GbE**

# QNAP QSW 10GbE switches

## QSW-IM1200-8C



Fan less web-managed switch provides 8 x 10GbE RJ45/SFP+ combo ports and 4 x 10GbE SFP+ ports

## QSW-M2108-2C



Un-managed switch provides 8 x 2.5GbE and 2 x 10GbE combo 10GBASE-T/SFP+ ports



# QNAP Multi-Gig network adapters

## QNA-UC5G1T



### Host with USB 3.2 Gen1

- 5G/2.5G/1G/100M 4-speed
- RJ45 NBASE-T connector

Compatible with NAS or  
Windows 10 PC/Laptop via USB

## QNA-T310G1T



### Host with Thunderbolt 3 or 4

- 10G/5G/2.5G/1G/100M 5-speed
- RJ45 NBASE-T connector

Compatible with Thunderbolt 3 or 4  
Mac and Windows

**QNAP**

# QM2-2P410G1T QM2-2P410G2T QM2-2P10G1TB is Your Best Choice!

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