

# APS Networks® APS7232Q



## Main Features

- Intel® Tofino™ 2 quad pipeline 12.8Tb/s network ASIC
- Intel® Xeon D-1700 CPU processor
- 32x 400Gb/s QSFP-DD ports
- OpenBMC Management

## Benefits

- Fully programmable P4 architecture
- Supports 10/25/40/50/100/200/400Gb/s data rates
- Internal CPU to network ASIC connectivity
- PTP Time Synchronisation (optional)

## General Product Description

The APS Networks® APS7232Q switch is a spine or TOR switch for high rate data solutions using the P4 programming language. The APS7232Q enables enterprise L2/L3 switching across the 32x QSFP-DD ports at line rate and supports 10/25/40/50/100/200 and 400Gb/s data rates on all ports. Combined with internal CPU Ethernet connectivity, a range of CPU processors and optional PTP, the APS7232Q is ideal for the development of P4 enabled solutions at an affordable price.

## Use Cases

- Enterprise Networking: Layer 2/3 P4 programmable network switch
- Security applications: Network Packet Broker / Layer 4 Load Balancer / P4 Firewall
- Media & Broadcast: Seamless switching backbone router

# Technical Details

Model	APS7232Q
Network Ports	32x QSFP-DD
Max. 400Gb Ports	32
Max. 200Gb Ports	64
Max. 100Gb Ports	128
Max. 50Gb Ports	256
Max. 40Gb Ports	256
Max. 25Gb Ports	256
Max. 10Gb Ports	256
Max. 1Gb Ports	-
Management Port	1x 1Gb/s RJ45 (10/100/1000MB)
Console Port	1x RJ45 Serial
SDN Controller / Control Plane Ports	2x 1Gb/s SFP Ports
USB	1
Network ASIC	Tofino™ 2 - 12.8Q
Throughput	12.8Tb/s
Packets Per Second	up to 6.0Bpps
Latency	from 600ns
ASIC Packet Buffer	60MB
ASIC Pipelines	2
Hot Swap PSU	2 (1+1 redundant)
Hot Swap Fans	6 (N+1 Redundant)
Typical Power Draw	250W
Max. Power Draw	450W
Max. PSU	1200W AC/DC
Acoustics	TBD
MTBF	TBD
Software	
Supported Software (OS)	Debian / Ubuntu
Supported Applications	SONiC / STRATUM
SDE	Intel® P4 Studio

Physical	
Rack Units	1U
Physical Dimensions (WxHxD) cm	46 x 4.3 x 48
Weight	TBD
Rack Mount	rack rail sliding solution
Hardware Warranty	3 year return to manufacturer

## CPU Options

- Intel® Xeon D-1713NT (4-core)
- Intel® Xeon D-1736NT (8-core)

Power Supply	Options
AC (Front to Back Cooling)	90Vac - 264Vac
AC F/B Inlet Socket	IEC 60320 C14
AC (Back to Front Cooling)	90Vac - 264Vac
AC B/F Inlet Socket	IEC 60320 C16
AC Input Frequency	47Hz - 63Hz
AC Efficiency	96%
DC (Front to Back Cooling)	-72Vdc to -40Vdc
DC (Back to Front Cooling)	-72Vdc to -40Vdc
DC Efficiency	92%

Environment	
Operating Temperature	0°C - 40°C (32°F - 104°F)
Non-Operating (Storage) Temperature	-20°C - 70°C (-20°F - 158°F)
Humidity	5% to 95% (non-condensing)
Altitude	0 - 2000m (0 - 6000ft)

## Optional Upgrades

- PTP board (Precision Time Protocol)