

APS Networks® APS2156D



Main Features

- Intel® Tofino™ 1 – 2.0Tb/s network ASIC
- Intel® ATOM or Xeon D-1700 CPU Processor
- 48 Ports 10/25Gb/s+8 Ports 100Gb/s
- OpenBMC Management

Benefits

- Fully programmable P4 architecture
- Dual pipeline 2.0Tbs throughput
- PTP Time Synchronisation (optional)
- Supports 10/25/40/50/100Gb/s data rates
- Internal CPU to network ASIC connectivity

General Product Description

The APS Networks® APS2156D switch is a TOR switch for enterprise networks or security solutions using the P4 programming language. The unit enables enterprise L2/L3 switching across the 48x SFP28 ports and the 8x QSFP28 at line rate and supports 10/25/40/50 and 100Gb/s data rates. Combined with internal CPU Ethernet connectivity, a range of CPU processors and optional PTP, the APS2156D is ideal for the development of P4 enabled solutions at an affordable price whilst providing excellent connectivity to servers and uplink networks.

Use Cases

- Enterprise Networking: Top of Rack layer 2/3 P4 programmable network switch
- Security applications: Network Packet Broker / Layer 4 Load Balancer / P4 Firewall
- Media & Broadcast: Seamless switching edge switch

Technical Details

Model	APS6132Q
Network Ports	48x SFP28 & 8x QSFP28
Max. 100Gb Ports	8
Max. 50Gb Ports	16
Max. 40Gb Ports	8
Max. 25GB Ports	80
Max. 10Gb Ports	80
Max. 1Gb Ports	-
Management Port	1x 1Gb RJ45 (10/100/1000MB)
Console Port	1x RJ45 Serial
SDN Controller / Control Plane Ports	2x 1Gb SFP Ports
USB	1
Network ASIC	Tofino™ 1 - 2.0D
Throughput	2.0Tb/s
Packets Per Second	up to 3.0Bpps
Latency	from 600ns
ASIC Packet Buffer	22MB
ASIC Pipelines	2
Hot Swap PSU	2 (1+1 redundant)
Hot Swap Fans	6 (N+1 Redundant)
Typical Power Draw	250W
Max. Power Draw	700W
Max. PSU	1200W Titanium
Acoustics	TBD
MTBF	TBD

Software	
Supported Software (OS)	Debian / Ubuntu
Supported Applications	SONiC / STRATUM
SDE	Intel® P4 Studio

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)

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

Variation: CPU

- Intel® ATOM C3538 (quad-core)
- Intel® Xeon D-1713NT (quad-core)
- Intel® Xeon D-1736NT (eight-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%

Optional Upgrades

- PTP board (Precision Time Protocol)