

# APS Networks® APS2112D



## Main Features

- Intel® Tofino™ 1 dual pipeline 1.8Tb/s network ASIC
- Intel® ATOM C3538 or Xeon D-1700 CPU processor
- 6x 25Gb/s SFP28 and 6x 100Gb/s QSFP28 ports
- OpenBMC Management

## Benefits

- Fully programmable P4 architecture
- Folded pipeline capable
- Unique half-width switch design
- PTP Time Synchronisation (optional)

## General Product Description

The APS Networks® APS2112D switch comes with the high-speed programmability of the Intel® Tofino™ 1 network ASIC in a unique half-width switch design, offering the smallest form factor Tofino™-based switch available.

The APS2112D is a high-end fully programmable network appliance for use cases that require high throughput with powerful processing.

## Use Cases

- Ideal entry switch for getting accustomed with P4 development
- Network security applications including deep packet inspection and DDoS identification
- Broadcast applications (IP Studio / OB vans)
- Any kind of application that requires full redundancy in 1U rack space by installing two units next to each other.

# Technical Details

Model	APS2112D
Network Ports	6x SFP28 & 6x QSFP28
Max. 400Gb Ports	-
Max. 200Gb Ports	-
Max. 100Gb Ports	6
Max. 50Gb Ports	12
Max. 40Gb Ports	6
Max. 25Gb Ports	6+24
Max. 10Gb Ports	6+24
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 - 1.8D
Throughput	0.75Tb/s
Packets Per Second	up to 3.0Bpps
Latency	from 600ns
ASIC Packet Buffer	20MB
ASIC Pipelines	2
Hot Swap PSU	1
Hot Swap Fans	3 (N+1 Redundant)
Typical Power Draw	250W
Max. Power Draw	450W
Max. PSU	850W (AC), 1200 (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	23 x 4.3 x 48
Weight	approx. 6kg
Rack Mount	rack rail sliding solution
Hardware Warranty	3 year return to manufacturer

## CPU Options

- Intel® ATOM C3538 (4-core)
- Intel® Xeon D-1713NT (4-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

- Choice of CPU board
- PTP board (Precision Time Protocol)