

APS Networks® APS6132D



Main Features

- Intel® Tofino™ 1 dual pipeline 3.2Tb/s network ASIC
- Intel® ATOM or Xeon D-1700 CPU Processor
- 32x 100Gb/s QSFP28 ports
- OpenBMC Management

Benefits

- Fully programmable P4 architecture
- Dual pipeline 3.2Tb/s 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® APS6132D switch is a spine or TOR switch for high rate data solutions using the P4 programming language. The APS6132D enables enterprise L2/L3 switching across the 32x QSFP28 ports at line rate and supports 10/25/40/50 and 100Gb/s data rates on all ports. Combined with internal CPU Ethernet connectivity, a range of CPU processors and optional PTP, the APS6132D 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 | APS6132D |
|--------------------------------------|-------------------------------|
| Network Ports | 32x QSFP28 |
| Max. 400Gb Ports | - |
| Max. 200Gb Ports | - |
| Max. 100Gb Ports | 32 |
| Max. 50Gb Ports | 64 |
| Max. 40Gb Ports | 32 |
| Max. 25Gb Ports | 128 |
| Max. 10Gb Ports | 128 |
| 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™ 1 - 3.2D |
| Throughput | 3.2Tb/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 | 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 | 46 x 4.3 x 48 |
| Weight | TBD |
| 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)
- 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)