

Advanced Programmable Switch

The **APS Networks BF6064X-T** is a dedicated platform for intelligent network programming, SDN and NFV development. Capture the full benefits of the powerful Intel® Tofino™ 6.4 Tbps 64x100Gb switch.



Data-Plane Programmability with P4 on the 6.4 Tbps Intel® Tofino™ ASIC: Switch and prioritize network traffic based on industry/application-specific protocols and custom packet metadata. Create bespoke wire-speed switching functionality, implement load-balancing and realize NFV.



Powerful Carrier-Grade Hardware: Effortlessly run northbound SDN controller interfaces (P4 runtime, gNMI | gNOI and legacy control-plane protocols). Install custom software and applications on the switch: Xeon 8-core CPU, 128GB SSD and 32GB RAM, redundant and hot-swappable power supplies and fans.



Built for SDN control: Multiple dedicated port options for switch management enable failover connection to SDN controllers and logical separation of the switch between different controllers: Out-of-band Ethernet, console port (RS232), two dedicated 1Gb RJ45 ports.



Supported speeds 10Gb to 100Gb: 64x40/50/100Gb in 2RU Chassis
256x10/25Gb or 128x50Gb (via breakout).



IEEE 1588v2 Precision Time Protocol: Unique to the APS range, with resolution of 4ns and frequency lock by OCXO. Timestamping is a vital enabler for real-world use cases across industries.



Switch Abstraction Layer (SAL): Unified management layer enables custom applications and functions to act on individual switch components; allows configuration and management of the time synchronization function (PTP); and provides a gRPC interface and C++ API for application development.



Integrated ONIE bootloader: Dynamic updating and hardware repurposing with a wide choice of operating systems.

Cross-Industry

SDN · NFV · Load Balancing · Datacenter Optimization · Application Performance · Security · Precise Time Stamping · In-Band Network Telemetry · Network Analytics · Observability · Reliability · Troubleshooting

Media & Broadcast

IP Studio · SDI/Ethernet · Live Broadcast (Seamless Video Stream Switching) · CDN Development · Video Encoding and Decoding

Telecoms

BNG Development · 5G Integration · Mobile Network Cell Handover · Intelligent Edge · NGI

BF6064X-T

Technical Specifications

Product Model	BF6064X-T
Network Ports	64x QSFP28
Max 100Gb Ports	64
Max 50Gb Ports	128
Max 40Gb Ports	64
Max 25Gb Ports	256
Max 10Gb Ports	256
Max 1Gb Ports	-
Throughput	6.4 Tbps
Packets per Second	up to 9.5 Bpps
Latency	from 600ns
Time Synchronization	transparent & boundary clock
CPU	8-core x86
System Memory	32 GB
Flash Storage Memory	2 x 16MB
System SSD Storage	128 GB
System / Packet buffer Memory	22 MB
Number of Pipelines	4
Management Ports	1 x 1G RJ45 (10/100/1000), also for time sync access
RS-232 Serial Ports	1 (RJ45)
SDN Controller / Control Plane Ports	2 x 1G RJ45 ports
USB Ports	1
Hot-swap Power Supplies	2 (1+1 redundant)
Hot-swap Fans	4 (N+1 redundant)
Typical / Max Power Draw	620W / 1115W
Power Supplies	1300W max. (AC)
Frequency (AC)	47Hz to 63Hz
Power Supply Options	AC
Airflow	Port-side intake and exhaust
Rack Units	2RU
Physical Dimensions (WxHxD) (in cm and inches)	50 x 43.8 x 8.7cm (19.69" x 17.24" x 3.43")
Weight (in kg and lbs)	15.23kg (33.57lbs) net weight
Rack Mount Kit	easy to install rail sliding kit
Boot Loader	ONIE
Supported Open Source Software	mion, ONL, SONiC, Stratum, Ubuntu
Commercial Software	Please refer to our website for current list
SDE	Intel® P4 Studio
Acoustics	65 dBA at 50% fan speed, 74 dBA at 70% fan speed, and 83 dBA at 100% fan speed
MTBF	347,890 hours
Warranty	
Hardware Warranty	3 years bring-in warranty

Power Supply	2U AC Power Supply
Input Voltage	100-240VAC
Typical Input Current	11 - 4A
Input Frequency	50/60Hz
Input Connector	IEC 320-C14
Efficiency (Typical)	91% Platinum
Compliance and Certification	
EMC	Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable) Immunity: EN55024 Emissions and Immunity: EN300 387
Safety	UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country differences
Certifications	RMC, C-Tick (Australia); VCCI (Japan); CCC (PRC); KCC (South Korea); North America (NRTL); CE, Reach (EU); BSMI (Taiwan); Anatel (Brazil); CB; UL; ROHS; ECCN EAR99
European Union Directives	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 2011/65/EU RoHS Directive 2012/19/EU WEEE Directive
Environment	
Operating Temperature	33 to 104°F (0 to 40°C)
Non-operating (Storage) Temperature	-40 to 158°F (-40 to 70°C)
Humidity	5 to 95% (noncondensing)
Altitude	1 to 13,123 ft (0 to 3000 m)
Specification	
Safety	UL 60950-1 Second Edition; CAN/CSA-C22.2 No. 60950-1 Second Edition; EN 60950-1 Second Edition; IEC 60950-1 Second Edition; AS/NZS 60950-1; GB4944
EMC: Emissions	47CFR Part 15 (CFR 47) Class A; AS/NZS CIS-PR22 Class A; CISPR22 Class A; EN55022 Class A; ICES003 Class A; VCCI Class A; EN61000-3-2; EN61000-3-3; KN22 Class A; CNS13438 Class A
EMC: Immunity	EN55024; CISPR24; EN300386; KN 61000-4 series
RoHS	The product is RoHS-6-compliant, with exceptions for leaded-ball grid-array (BGA) balls and lead press-fit connectors
Ordering Part Numbers	
BF6064X-T with port-to-power airflow	BF6064X-T-A2F
1-year advanced exchange support, software updates and setup support	SUP-BF6064X-T-1Y
3-year advanced exchange support, software updates and setup support	SUP-BF6064X-T-3Y
5-year advanced exchange support, software updates and setup support, incl. 2 year warranty extension	SUP-BF6064X-T-5Y
Spare Rack Sliding Kit	RSK1

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