

## Asterfusion Bare Metal Programmable Switch X-T Series

### X532P-T



#### Highlights

- Compact 1RU OCP standard bare metal hardware
- 32 x 100G/40G QSFP28 Ethernet interfaces
- Deployment-proven Intel Tofino programmable switching ASIC with P4 development support
- Open source software supported:
  - ONIE, SONiC and Stratum for switch
- Production ready enterprise SONiC distribution AsterNOS included

#### Product Overview

The Asterfusion X532P-T is a best-in-class, programmable switch bare metal that provides standards-based networking connectivity to meet the stringent requirements of high-performance enterprise and service provider data centers. It is a unique combination of a multi-core X86-based control/management plane, an Intel Tofino programmable switching chip based data forwarding plane. The Asterfusion X532P-T switch is optimized to make the networks more open, flexible, programmable, and powerful.

The Asterfusion X532P-T switch follows with OCP (Open Compute Project) standard. The community version of SONiC and Stratum can be installed with the pre-loaded white box install environment ONIE. We also provide our production-ready enterprise SONiC distribution AsterNOS that provides a complete quality assurance procedure, protocol and feature enhancement and control/management APIs for quick integration with orchestration controller such as Openstack and etc., which greatly simplifies and eases the development and deployment of applications when using Tofino switch.



After installing the software, the X532P-T can be deployed as a top-of-rack (ToR) and spine switch as well as smart gateway for tasks such as traffic management, load balance and security processing with its ASIC level programmability enabling flexibility in dealing with different network application scenarios. When employed with more complex applications, such as those which need deep buffer, stateful processing or L7 processing, the pluggable DPU module can be chosen to provide high performance software data processing, where DPDK and VPP framework can be used to provide developers a quick start development environment in a similar way to Intel X86.

### System Hardware Feature Highlights

- Barefoot Tofino programmable switching ASIC
- Wire-speed, full-duplex across all ports, Layer 2 and Layer 3 forwarding up to 6.5Tbps
- Ethernet Interface:
  - 32 x 100G/40G (QSFP28) – Each port supports single-mode and multi-mode fibers (duplex or MPO/MPT) and copper transceivers or cables
  - Each port can be configured as 4x 25GbE or 4x 10GbE via breakout cables.
- Multi-core x86 CPU as a control and management plane
- 8GB DDR4(extended to 32G) 64G/-, m.2 SATA
- All Ethernet ports on front; PSUs and fans accessible from rear
- Dual-redundant, load-sharing, hot-swappable PSUs
- **3+1 redundant**, hot-swappable fan modules

### Multiple Software Choices

- **AsterNOS: Enterprise NOS based on SONiC**

By default, we provide an enterprise distribution SONiC NOS with feature enhancement and quality assurance with complete code review and system testing. The current SONiC version is based on 202012 and SAI version 1.6.3

- **AsterNOS Framework : as P4 application development environment**

The AsterNOS Framework integrates P4Runtime into a reduced-SONiC version in a docker container. By re-using the maturity and flexibility of SONiC architecture, developers can easily combine powerful management and control plane such as BSP, hardware driver, device management etc. from SONiC with P4 data plane programmability in a single software system.

- **Community version of SONiC**

The community version of SONiC can be installed with the pre-loaded ONIE.

### System Architecture and Panel Illustration

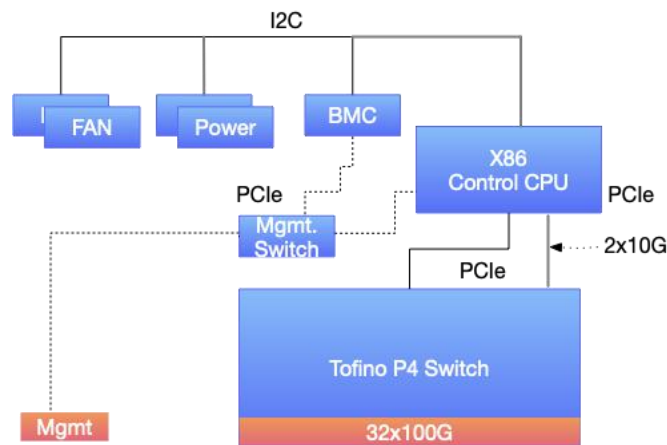
- **Front Panel**



- **Rear Panel**



- **System Architecture**



### Order Information

X532P-T	Programmable bare metal switch, 12x100G+48x25G, ONIE pre-installed, 5xFAN and 2 CRPS Power included
SW-AsterNOS-X564P-T	AsterNOS software
SVC-Basic-1Y-X564P-T	1 Year H/W warranty
PWR-CRPS-AC-600	600w AC Power
PWR-CRPS-DC48-600	600w DC-48v Power
FAN-I	FAN module