Pluribus Freedom 9372-T Switch

High-Performance Open Network Switch with Advanced Network Services for Leaf and Top of Rack Deployments with 48 RJ-45 ports support 100M, 1/10GBase-T and 6 QSFP+ ports support 1x 40GbE or 4x 10GbE

**Highlights**

- Compact 1 RU standards-based open network switch built on ONIE
- Optimized to support Netvisor ONE OS advanced services
- Deployment-proven Broadcom StrataXGS® Trident2+ switching ASIC
- Intel Atom CPU supports integrated network services
- Sustained performance and throughput for all configurations
- VXLAN supported in hardware
- Minimal power consumption with up to 93% power efficiency, reduces operating costs
- Reversible airflow supports hot-aisle and cold-aisle placement
- Low heat dissipation minimizes cooling requirements

**Product Overview**

The Pluribus Freedom™ 9372-T switch is a best-in-class, programmable open network switch that provides, standards-based networking to meet the stringent requirements of high-performance enterprise and cloud data centers. Built on the deployment-proven Broadcom StrataXGS® Trident 2+ switching ASIC, the Pluribus Freedom 9372-T switch is optimized to deliver the advanced networking and service capabilities of the Pluribus Netvisor® ONE Operating System (OS). The Pluribus Freedom 9372-T switch is built with the Open Network Install Environment (ONIE) to support any compatible network operating system for maximum flexibility and adaptability to meet future data center networking requirements.

The Pluribus Freedom 9372-T switch delivers wire-speed layer 2 and layer 3 switching and routing with sustained packet forwarding performance of 1.44 Terabits per second (Tbps) full duplex and 1 Billion packets per second (Bpps) throughput with all network services enabled. The Pluribus Freedom 9372-T switch provides 48 RJ-45 ports support 100M, 1/10GBASE-T and 6 QSFP+ ports that can each be configured as 1x 40GbE or 4x 10GbE uplink connections.

The platform is built for high availability environments with redundant and hot swappable power and fan units. The switch is power efficient and offers airflow flexibility to support hot or cold aisle deployments. The compact design of the Pluribus Freedom 9372-T minimizes its deployment footprint, requires less power, and lowers cooling requirements, which reduces the cost of data center network operations.
System Highlights

- Wire-speed Layer 2 and Layer 3 forwarding up to 1.44 Tbps (full duplex) and 1 Bpps
- 48 x RJ-45 Copper, supporting 10GBASE-T, 1000BASE-T and 100BASE-TX Ethernet on Cat 6, Cat 6A and Cat 7 twisted-pair cable
- 48 x RJ-45 Copper, supporting 1000BASE-T and 100BASE-TX on Cat 5e UTP, Cat 6, Cat 6A and Cat 7 twisted-pair cable
- 6 x 40 QSFP switch ports, each supporting 40GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10GbE (DAC or fiber breakout cable)
- Broadcom StrataXGS® Trident2+ switching ASIC
- Intel Atom C2538 quad-core 2.4 GHz x86 processor
- VXLAN services supported in hardware at wire-speed
- 16 MB integrated packet buffer
- All ports on front; PSUs and fans accessible from rear
- Hot-swappable, load sharing, redundant AC PSUs power input option
- 348 Watts maximum power consumption with efficiency of up to 93%
- 4+1 redundant, hot-swappable fan modules
- Configurable hot/cold aisle with port-to-power and power-to-port airflow
- 1 RU compact form factor mountable in either a standard 19” or 21” rack

Adaptive Cloud Fabric

The Pluribus Adaptive Cloud Fabric (ACF) empowers organizations to speed up their transition to a completely automated network that supports software defined data center and cloud automation principles with a simpler non disruptive and more transparent architecture that makes it easier to deliver, manage and secure service delivery. The ACF can be deployed across a single data center, or geographically distributed to seamlessly interconnect multiple of data centers or aggregate the campus edge over existing core WAN infrastructure.

Netvisor ONE Operating System

Enabling simple, plug-and-play deployments, the Pluribus Freedom 9372-T switch is delivered as an integrated, turnkey solution that is shipped pre-configured with the Pluribus Netvisor ONE OS installed on the Open Network Install Environment foundation. Pluribus Netvisor ONE is a virtualized network operating system (NOS) that provides a best-in-class Layer 2 and Layer 3 networking foundation and optionally licensed advanced network services such as VXLAN, the distributed Adaptive Cloud Fabric™ architecture and embedded network performance monitoring telemetry.

Netvisor ONE Licensing Options

- **Netvisor Enterprise** — Included with the switch. It supports Layer 2 and Layer 3 switching and routing functionality with all standard networking protocols and high-availability features.
- **Netvisor Fabric** — It adds VXLAN, telemetry, Adaptive Cloud Fabric and security and segmentation capabilities (not included with the switch).
- **vNET License** — It supports multi-tenant and network/traffic segmentation requirements. Licensed one per switch. vNET Manager capabilities require Virtual Netvisor (vNV) to be deployed (not included with the switch).
- **VirtualWire+™ License** — It includes Fabric license and enables VirtualWire capabilities (not included with the switch).
- **VirtualWire™ License** — It enables VirtualWire capabilities in standalone L1 VirtualWire mode (not included with the switch).

Warranty

The Pluribus Netvisor® ONE OS and Pluribus Freedom™ Open Networking Switches are backed by a 90-Day limited warranty and access to technical support. Pluribus FreedomCare™ extended support options provide for extended support coverage, which includes advanced Product replacements, software updates and upgrades and access to 24x7 technical support. Contact Pluribus Networks or a Pluribus Networks authorized reseller for details on advanced support options.
Specifications
Pluribus Freedom 9372-T Switch

**Switching Engine**
- Broadcom (BCM56864) Trident2+

**Onboard CPU**
- Intel Atom C2538 quad-core 2.4 GHz x86 processor
- 8 GB SO-DIMM DDR3 RAM with ECC
- 8 GB NAND flash Reserve mSATA connector

**Software**
- Switch is loaded with Open Network Environment Install Environment (ONIE) software installer
- Pluribus Netvisor ONE OS - based upon options ordered

**Interface Ports**

*Network Interfaces*
- 48 x RJ-45 Copper each supporting 10GbE, 1GbE or 100 Mbps
- 6 x QSFP each supporting 40GbE or 4 x 10GbE

*Management Ports*
- 1 x RJ-45 serial console
- 1 x RJ-45 100/1000BASE-T management

**Optics and Cables**

*RJ45 Copper ports*
- 1GBASE-T on Cat 6, Cat 6A and Cat 7 twisted-pair cable
- 1000BASE-T and 100BASE-TX on Cat 5e UTP, Cat 6, Cat 6A and Cat 7 twisted-pair cable

*QSFP Ports*
- 40GBASE-CR4 DAC; 0.5 m to 7 m; passive and active
- 40GBASE-CR4 DAC to 4 x SFP+ 10GBASE-CR DAC; up to 5 m passive; up to 10 m active
- 40GBASE-SR4: Up to 100 m over OM3 MMF, 150 m over OM4 MMF
- 40GBASE-SR4 to 6 x 10GBASE-SR: 100 m over OM3, 150 m OM4
- 40GBASE-LR4: Up to 10 km over SM

**Performance**
- Wire speed L2 and L3 forwarding
- Switching Capacity: 1.44 Tbps full duplex
- Forwarding Rate: 1 Bpps
- Jumbo frames support up to 9398 Bytes
- Packet Buffer Size: 16 MB integrated packet buffer

**Hardware Capacity**
- Please refer to the Pluribus Netvisor® ONE OS data sheet

**Operational**
- PSUs: 2 redundant, load-sharing, hot-swapable AC or -48 VDC
- Input Voltage: 90 to 264 VAC at 50-60 Hz, -48 to -72 VDC
- Input Current: Max 6 A@100/120 VAC, 3 A@ 200/240 VAC, 10 A@ -72 VDC
- PSU Efficiency: Up to 93% for AC PSUs
- Power input option: 12 VDC
- Max Power: 348 Watts
- Typical Power: 261 Watts
- Hot swappable 4+1 redundant fan modules
- Supports both hot-aisle and cold-aisle placement with reversible air flow

**Physical and Environmental**
- Dimensions (WxDxH): 47.3 x 44.25 x 4.39 cm (18.6 x 17.4 x 1.71 in)
- Weight: 9.5 kg (20.94 lb.), with two installed PSU modules
- Fans: hot-swappable 4+1 redundant fans
- Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 95% non-condensing

**LEDs**
- LEDs 10G SFP+ Port LEDs: Link Speed, Link Status, Activity
- 40GbE QSFP Port LEDs: Link Status, Activity for 40GbE status
- 40G QSFP Breakout LEDs: set of 24 LEDs, 4 per QSFP port, show Link, Status, Activity 10GbE links with 4x10GbE breakout
- Ethernet Management Port LED: Link Status, Activity Console Port LED: Link Status
- System LEDs: PSU1, PSU2, Diagnostic, Fans, Locator

**Regulatory**

*EMI*
- CE Mark (EN55022 Class A)
- FCC Part 15 Class A

*VCCI*
- CB, EN 60950
- UL/CUL

*Environmental*
- Temperature: IEC 68-2-14
- Vibration: IEC 68-2-6
- Shock: IEC 68-2-29
- Acoustic Noise Level: Under 63dB in normal temperature (23±5°) (AC Version)

*RoHS-6 Compliant*