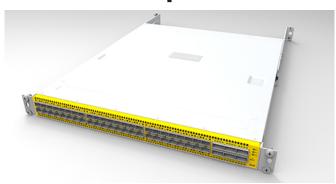


### Features:

- ✓ Latest Broadcom Trident II packet engine
- √48x 10 Gigabit SFP+ host ports for twinax cabling or optical transceivers
- 6x 40 Gigabit QSFP uplink ports
- Redundant 2x 460W power supplies
- Airflow configurations for both front and rear facing I/O layouts
- ✓ Hot swappable fans

# Arctica 4806xp



# Cost-effective switch platform with a choice of Software Defined Networking options

Penguin Arctica switches are cost effective Layer-2/Layer-3 capable top-of-rack switches that supports the Open Network Install Environment (ONIE) initiative. Arctica 4806xp model is based on industry leading 'merchant silicon' - The Broadcom Trident II. Unlike the switch offerings from established tier 1 vendors Arctica switches are truly open, enabling customer to deploy the firmware stack or SDN solution best suited for the application. Penguin Arctica 4806xp features an x86 control processor which makes it easy to run open source and custom applications for switch management and monitoring.

The Penguin Arctica 4806xp can be deployed in a top-of-rack role to support server farms with cost effective 10 Gigabit host connectivity. Alternatively the Arctica 4806xp can be also used as a distribution layer for multiple Arctica 4804i units. Arctica 4806xp provides six 40 Gigabit QSFP uplinks for connections to the spine. Based on the popular Broadcom Trident II switch platform, Arctica 4806xp is capable of full bidirectional line rate Layer 2 and Layer 3 processing and forwarding on all host and uplink ports. Arctica 4806xp includes RAS features such as dual redundant power supplies and hot swappable fans.

Penguin Computing recommends Cumulus Linux, the industry's first true Linux network operating system that radically reduces operational expenses by simplifying network management. Penguin Arctica switches are available with Cumulus Linux preloaded, backed by hardware and software support options.

#### Contact:

For information, please contact: sales@penguincomputing.com

Penguin Computing specializes in delivering turn-key High Performance Computing clusters and Data Center systems that include software solutions for cluster and workload management, high performance interconnects, storage systems and a power delivery infrastructure. All components are integrated in rack enclosures, configured for optimal performance by Penguin's HPC experts and ready to use.

Penguin systems are tested for compatibility with all major commercial and freely available Linux distributions and are available with Red Hat Enterprise Linux, SuSE Linux Enterprise Server or CentOS pre-installed.

### Arctica 4806xp Datasheet

## Open Switches for Intelligent Data Centers

As data center deployments become more complex and larger in scale, the networking industry is being changed by the very same impulse that transformed servers and storage in the data center market. Burdened by cost and tired by the constraints of vendor tie-in and difficult to use network switches, customers are now demanding easier and more open solutions to the problem of building infrastructure, with increased cost-effectiveness without sacrificing performance or the ability to satisfy the most challenging data center applications.

To meet these needs, Penguin Computing offers the Arctica family of economical, full-featured managed network switches.

#### **About Penguin Computing**

For well over a decade Penguin Computing has been delivering integrated, Linux-based solutions for the enterprise and HPC space. With Linux expertise that is unmatched in the industry Penguin Computing offers an end-toend portfolio of products that range from Linux servers and workstations to integrated, turn-key HPC clusters and cluster management software.

For customers with special hardware requirements Penguin Computing provides customized 'build to order' server solutions. Complementing Penguin Computing's hardware and software solutions is Penguin Computing on Demand (POD), a public HPC cloud that provides virtual supercomputing capabilities on-demand on a pay-as-you-go basis.

#### Chassis

- Fixed configuration, Top-of-Rack form factor, 1RU
- Physical Dimensions: 1.73" x 17.3" x 21.6" (H x W x D)
- Ports: 48x SFP+/10Gb ports + 6x QSFP/40Gb ports, copper and optical cabling
- Power Supplies: 2x 460W Redundant Power Supplies,
- Choice of front-to-back and back-to-front airflow

#### Hardware Features- Data Plane

- Broadcom BCM56854 "Trident II"
- Cut-through operation, store-and-forward mode available for speed conversions
- Forwarding capacity: 1.44Tbps, 1Bpps (full bidrectional line rate on all ports)
- Packet buffer: 12MB

#### Hardware Features- Control Plane

- Management processor: Intel 2.4GHz, 4 cores, 64 bit
- 2GB RAM
- 4GB NAND flash, optional removable media

#### Network OS Features- Cumulus Linux

Cumulus Linux is a software distribution based on Debian. It comprises of 250+ networking focused packages and can be augmented with existing Linux packages. The distribution includes support for:

- 802.1d Bridging
- 802.1w Rapid Spanning Tree Protocol
- Bridge Assurance
- BPDU Guard
- IPv6 Router Advertisement Guard
- 802.1q VLAN Trunks
- 802.3ad Link Aggregation
- 802.1ab Link Layer Discovery Protocol
- IPv6 Neighbor Discovery
- Unicast / broadcast storm control
- VXLAN
- OSPF v2/v3
- BGP v4/v6
- ECMP