

Penguin Computing Arctica Network Switches

❄️ Arctica 4806xp

40Gb Ethernet SDN(Software Defined Networking)스위치



- Open Network Install Environment (ONIE) 지원
- 최신 Broadcom Trident II packet engine
- 48x 10 Gb SFP+ host ports (Twinax / Optical cable)
- 6x 40 Gb QSFP uplink ports
- Redundant 1x 460W power supplies, Hot swappable fans
- 업계 최초의 진정한 Linux network OS, Cumulus Linux 기본 탑재

❄️ Arctica 3200xl

40Gb Ethernet Top-of-Rack, Aggregation 스위치



- 업계선두 Broadcom Trident II Silicon
- 데이터센터, HPC, Top-of-rack 용도의 고성능 L2/L3
- OpenFlow 지원 Arctica OS 또는 Cumulus OS
- 32x 40 Gb QSFP ports (Copper / Optical cable)
- Redundant 460W power supplies, Hot swappable fans

❄️ Arctica 3200xlp

40Gb Ethernet Aggregation 스위치



- 비용 효과적인 Layer 2 / Layer 3 top-of-rack 스위치
- Open Network Install Environment (ONIE) 지원
- 업계 선두 Broadcom Trident II Silicon
- 32x QSFP 40Gb ports (Copper / Optical cable)
- Redundant 2x 460W power supplies, Hot swappable fans

❄️ Arctica 3200c

100Gb Ethernet Datacenter 스위치



- Software Defined 고성능 데이터센터 스위치
- Intel x86 control processor
- Top-of-Rack, Aggregation layer
- 최신 Broadcom Tomahawk packet engine
- 32x 100 Gb QSFP28 ports (여러 25/50Gb로 split 가능)
- 100Gb, 50Gb, 40Gb, 25Gb, 10Gb link speed 지원
- Redundant 2x 800W power supplies, Hot swappable fans

Penguin Computing Arctica Network Switches

❄️ 제품 사양

Arctica 4806xp (Cumulus OS/Arctica OS)

○ Chassis

- Top-of-Rack form factor, 1RU
- Dimensions: 1,73”(H) x 17,3”(W) x 21,6”(D)
- Ports: 48x SFP+/10Gb ports + 6x QSFP/40Gb ports, Copper/Optical cable
- Power: 2x 460W redundant power supplies
- Airflow: Front-to-back or Back-to-front

○ Hardware

- Broadcom BCM56854 Trident II
- Cut-through operation,
- Store-and-forward mode for speed conversions
- Forwarding capacity: 1,44Tbps, 1Bpps (full bidirectional line rate on all ports)
- Packet buffer: 12MB
- Management processor: Intel 1,7GHz, 4 cores, 64 bit
- 2GB RAM
- 4GB NAND flash

○ Network Features

- 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

Arctica 3200xl (Arctica OS/Cumulus OS)

○ Chassis

- Dimensions: 1,73”(H) x 17,3”(W) x 17”(D)
- Ports: 32x QSFP 40Gb(96x 10Gb), Management, Serial console(RJ45), USB
- Transceiver/Cable: QSFP up to power level 4; Optical: SR4 up to 400m, LR4 to 10km; Copper: 40GBASE-CR4 (passive twinax) up to 5m
- Power: Dual redundant power supplies
- Airflow: Front-to-back or Back-to-front

○ Hardware

- Switching Capacity: 2,56Tbps, 9MB buffer
- Latency: ~400ns Port to Port(Cut-Through mode)
- Routing Tables: Unified Tables, Configurable
- Jumbo packet - 12K Bytes
- Datacenter: DCB, TRILL,
- Virtual Port(VM) Switching, L2 GRE Content Aware Processing- Layer 2-7 Packet Classification, FCoE
- IEEE-802.3az-Energy Efficient Ethernet
- CPU-800 MHz Dual-core PowerPC,
- 2GB ECC DDR3, 1GB Flash

○ Network Features

- OpenFlow management agent, Port-based Hybrid mode, VLAN-based Hybrid mode
- 802.1D STP, 802.1w RSTP, 802.1s MSTP
- 802.1Q VLAN, Protocol VLAN
- 802.3ad Link Aggregation/LACP, MLAG
- 802.1x Network Access Control
- IGMP/MLD Snooping
- Hardware-based IPv4/IPv6 forwarding
- IPv4/v6 Routing protocols: OSPF v2/v3, RIP, BGP
- ECMP/WCMP, VRRP, IGMP v2/v3

Arctica 3200xp (Cumulus OS/Arctica OS)

○ Chassis

- Top-of-rack form factor, 1RU
- Dimensions: 21,6”(L) x 17,3”(W) x 1,73”(H)
- Ports: 32x QSFP 40Gb ports, Copper/Optical cable
- Power: 2x 460W redundant power supplies
- Airflow: Front or Rear I/O layout

○ Hardware

- Broadcom BCM56854 “Trident II”
- Cut-through operation,
- Store-and-forward mode for speed conversions
- Forwarding capacity: 2,56Tbps, 1Bpps(full bidirectional line rate on all ports)
- Packet buffer: 12MB
- Management processor: Intel 1,7GHz, 4 cores, 64 bit
- 2GB RAM
- 4GB NAND flash

○ Network Features

- 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

Arctica 3200c (Cumulus OS/Arctica OS)

○ Chassis

- Top-of-rack form factor, 1RU
- Dimensions: 1,73”(H) x 17,3”(W) x 21,6”(D)
- Ports: 32x QSFP28 100, 50, 40, 25, 10Gb link support
- Power: 2x 800W redundant power supplies, Hot swappable fans
- Airflow: Front-to-back or Back-to-front

○ Hardware

- Broadcom BCM56854 “Tomahawk”
- Cut-through operation,
- Store-and-forward mode for speed conversions
- Forwarding capacity: 3,2Tbps (full bidirectional line rate on all ports)
- Management processor: Intel 1,7GHz, 4 cores, 64 bit
- 2GB RAM
- 4GB NAND flash

○ Network Features

- 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