Network Cloud Packet Forwarder

ASA926-18XKE

The ASA926-18XKE is a Network Cloud Packet Forwarder (NCP) featuring 18xOSFP 800G Network Interface (NIF) ports with 20xOSFP 800G fabric interface ports. The ASA926-18XKE can either work independently as standalone network cloud router or can be coupled with an AS9936-128D Network Cloud Fabric (NCF) engine to build a scalable Virtual Output Queue (VoQ) based fabric Distributed Disaggregated Chassis (DDC) network cloud cluster that is optimized to support AI/ML applications.

The ASA926-18XKE supports 14.4 Tbps full-duplex switching and the OSFP network interface ports support an 800 GbE operation mode, as well as being configurable as 2 x 400 GbE mode. The OSFP fabric interface ports can be used as connection interfaces with AS9936-128D fabric engines.

The DDC cluster architecture solution offers the best option for AI back-end networking. It creates a single-Ethernet-hop architecture that is non-proprietary, flexible, and scalable up to 32K-GPU 800G/400G AI/ML cluster. This yields workload Job Completion Time (JCT) efficiency, as it provides a lossless network performance while maintaining an easy-to-build cluster physical architecture.

Key Features

Interfaces

- High-radix 18x800G switch with 20x800G fabric interfaces to couple with AS9936-128D fabric engines for superior scale-out DDC network cloud cluster architecture.
- Supports 800GE and superior system integration with in-house Linear drive Pluggable Optics (LPOs) for lower power consumption and TCO.

General

- Advanced design optimized for AI/ML applications.
- Open-networking-friendly disaggregated architecture for compute-intensive workloads with third-party software
- Enables flat, low latency AI/ML clusters with tens of thousands of GPUs
- Hardware-based link failover for optimized workload resiliency and reduced job completion time (JCT)
- Integrated hierarchical traffic manager with support for thousands of flows
- Supports deep buffers
- Supports 1588v2 PTP Class C
- Supports BMC allowing automatic and remote operations for monitoring and managing platform health status

Security

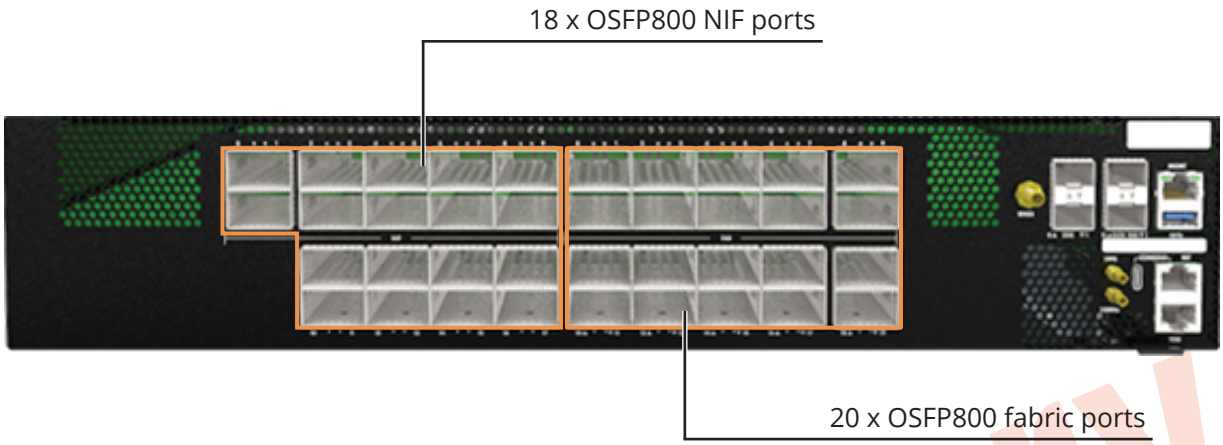
- Supports MACSec
- Supports Platform Firmware Resilience (PFR) to protect the platform from firmware attack and reduce the risk of downtime

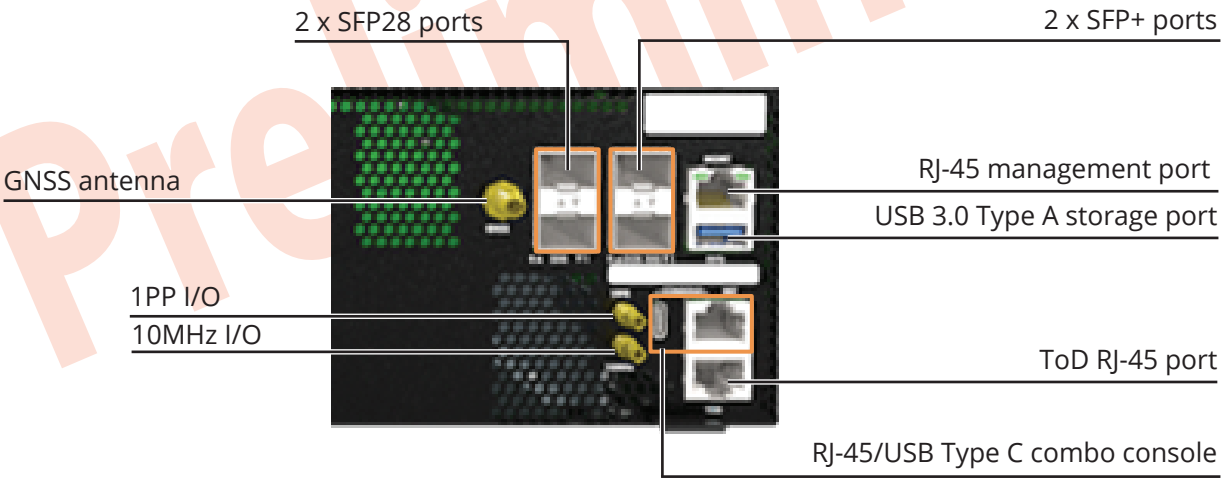
Power and Cooling

- 1 + 1 redundant hot-pluggable PSUs
- 3 + 1 redundant hot-swappable fans

Accton

Overview





Accton
Making Partnership Work

Hardware Specifications

Ports
Fixed Service Ports:
- 18 x OSFP800 network interfaces
- 20 x OSFP800 fabric interfaces

Management Ports on Port Side:
- 1 x RJ-45/USB Type C Combo serial console
- 1 x RJ-45 100/1000BASE-T management
- 1 x USB 3.0 Type A storage
- 2 x SFP+ SDN management
- 2 x SFP28 in-band management
- 1 x reset button

Clocking and Timing Ports:
- 1 x 1PPS I/O DIN
- 1 x 10MHz I/O DIN
- 1 x TOD port
- 1 x GNSS antenna

Key Components
Switch Silicon: Broadcom Jericho3 BCM88860
BMC ASIC: AST2600
PFR ASIC: AST1060
CPU Modules:
- Intel COMe module Ice Lake-D D-1734NT 8C
- Memory: 64GB DDR4 (2 x 32GB) with ECC

Storage: NVMe 240G M.2 SSD or 480G (optional)

Performance
Full-Duplex Switching Capability: 14.4 Tbps
Packet Throughput: 5400 Mpps processing rate

Physical and Environmental
Dimensions (HxWxD): 87 mm (H) × 440 mm (W) × 648.2 mm (D)
Weight: 21 kg
Fans: Hot-swappable 3 + 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 85% (RH), noncondensing

LEDs
OSFP NIF/OSFP Fabric, SFP28, SFP+ Port LEDs: Link Status, Activity, Rate
Ethernet Management Port LED: Link Status, Activity
System LEDs: Diagnostic, Locator, Alarm, PSU and Fan Status

Power
PSUs: 1 + 1 redundant, load-sharing, hot-swappable VAC/VDC
Input Voltage: 200-240 VAC; -48 to -60 VDC
Power Consumption: Typical 1283 W; Maximum 1615 W (with 800G 14 W optics)

Regulatory Compliance
EMI:
- CE Mark
- EN55032 Class A EN55024/35
- EN 301 489-1
- EN 301 489-19
- EN 303413
- BSMI (CNS 13438), Class A

FCC Part 15 Subpart B Class A EN 300 386
Safety:
- UL 62368-1 Ed.3
- IEC/EN 60950-1
- IEC/EN 62368-1 Ed.3
- UL 60960
- BSMI CNS 14336-1

Environmental Compliance:
- Storage: ETSI 300 019-2-1 Class T1.2
- Transportation: ETSI 300 019-2-2 Class T2.3
- Vibration: ETS EN 300 019-2-3 Class 3.2/ IEC 60068-2-64
- Operating Bump Test : ETS EN 300 019-2-3 Class 3.2/ IEC60068-2-27
- Acoustic Noise: ETS 300753
- RoHS-6 Compliant