



# 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

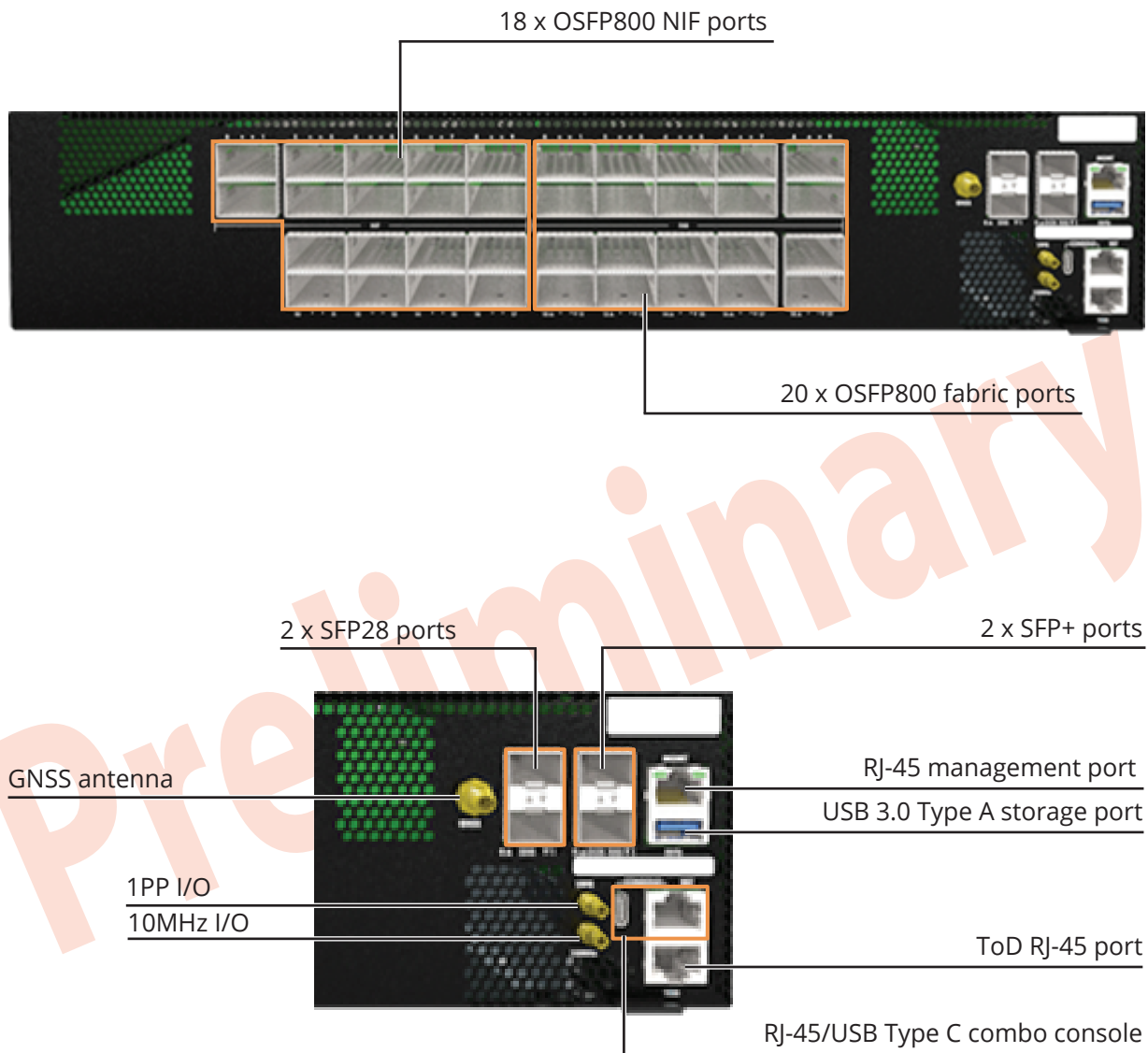
- Supports MACSec
- Supports Platform Firmware Resilience (PFR) to protect the platform from firmware attack and reduce the risk of downtime

### Power and Cooling

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



# Overview





# 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 SMB
- 1 x 10MHz I/O SMB
- 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: 32GB DDR4 (2 x 16GB) 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) x 440 mm (W) x 648.2 mm (D)

Weight: To be provided 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; -40 to -72 VDC

Power Consumption: To be provided W

## 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