

N-Series Bare Metal Switches

IDEAL FOR DATA CENTER NETWORKS AND HIGH-END CAMPUS NETWORKS

N-series **bare metal** switches are designed for data center networks and high-end campus networks, providing stable, reliable and secure Layer 2/Layer 3 switching services.



Overview

N-Series bare metal switches are comprised of ONIE (Open Network Install Environment) based platforms which support the mounting of a multitude of operating systems, such as Cumulus Linux, ICOS, PICOS® etc.

This family includes a broad portfolio of Top-of-Rack (TOR) switches that range from 32 to 54 ports, with wire speed of 25GbE, 40GbE and 100GbE per port.

COMPATIBLE OPERATING

SYSTEM

- Cumulus - Cumulus Linux
- Broadcom - ICOS
- Pica8 - PICOS®
- IP Infusion - OcNOS™
- Open Compute Project - Open Network Linux

What is ONIE (Open Network Install Environment)?

The Open Network Install Environment (ONIE) is an Open Compute Project open source initiative driven by a community to define an open "install environment" for bare metal network switches, such as N-series switches. ONIE enables a bare metal network switch ecosystem where end users have a choice among different network operating systems.

FS provides 25G/40G/100G bare metal switches, enabling users to freely install and use Cumulus Linux, ICOS, PICOS® etc. as the switch operating system, which breaks the dependency of using vendor-specific, closed-source software development kits (SDK).

Technical Specification

N-series switches come with the industry-standard hardware. Here's a look at the details.

CHARACTERISTICS

	N8500-48B6C	N8000-32Q	N8500-32C
Port			
Switch Ports	48x SFP28 and 6x QSFP28	32x QSFP+	32x QSFP28
Management Ports	1x Serial Console and 1x MGMT	1x Serial Console and 1x MGMT	1x Serial Console and 1x MGMT
Compatible Operating System			
OS	Cumulus Linux, ICOS, PICOS®, OcNOS™, Open Network Linux		
Key Components			
Switch Chip	Tomahawk+ BCM56967	Trident 2 BCM56850	Tomahawk BCM56960
CPU	Broadwell-DE 2.2Ghz 2-core	Intel Rangeley C2538 2.4Ghz 4-core	Intel Rangeley C2538 2.4Ghz 4-core
Performance			
Layer Type	Layer 3	Layer 3	Layer 3
Switching Capacity	3.6Tbps full-duplex	2.56Tbps full-duplex	6.4Tbps full-duplex
Forwarding Rate	4.7Bpps	1.44Bpps	4.7Bpps
Latency	500ns	480ns	500ns
Packet Buffer	16MB	12MB	16MB
Flash Memory	64GB SSD	16GB SSD	16GB SSD
DDM	Support	Support	Support

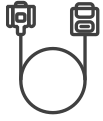
CHARACTERISTICS

	N8500-48B6C	N8000-32Q	N8500-32C
Performance			
RAM Memory	4GB DDR4	4GB DDR3	4GB DDR3
ROM Memory	16GB	8GB	8GB
Power			
Input Voltage	100-127VAC, 50/60 Hz, 7.1A 200-240VAC, 50/60 Hz, 3.4A	100-127VAC, 50/60Hz, 5.8A 200-240VAC, 50/60Hz, 2.9A	100-127VAC, 50/60Hz, 9.4A 200-240VAC, 50-60Hz, 4.7A
Max. Power Consumption	550W	300W	550W
Physical and Environmental			
Dimensions (HxWxD)	1.73"x17.08"x20.47" (43.8x433.8x520mm)	1.73"x17.08"x20.47" (43.8x433.8x520mm)	1.73"x17.08"x20.47" (43.8x433.8x520mm)
Rack Space	1U	1U	1U
Hot-swappable Power Supplies	2 (1+1 Redundant)	2 (1+1 Redundant)	2 (1+1 Redundant)
Hot-swappable Fans	4 (N+1 Redundant)	5 (N+1 Redundant)	5 (N+1 Redundant)
Operating Temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	5% to 90% Non-condensing	5% to 90% Non-condensing	5% to 90% Non-condensing
Weight	22.04 lbs (10 kg)	22.04 lbs (10 kg)	22.04 lbs (10 kg)
Warranty			
Hardware Warranty	5 Years	5 Years	5 Years

FEATURES

Functionality	Description
Layer 2 Hardware Supported	802.3ad LACP 802.1D STP, 802.1w RSTP, 802.1s MSTP, TRILL 802.1Q VLAN 4096, SVLAN, PVLAN 802.1 Q-in-Q double-tagged VLAN 802.1P L2 Prioritization 802.1AB Link Layer Discovery Protocol (LLDP) 802.1x Network Access Control IGMP/MLD Snooping VM Switching/VEPA/VN-Tag/802.1Qbh Mirroring Storm Control
Layer 3 Hardware Supported	Hardware-based IP Forward IPv4/v6 Routing Protocols: OSPF, RIP, BGP VRF ECMP/WCMP, VRRP Hardware Based Tunneling: IPv4/v6, GRE IGMPv1/v2/v3 IP Multicast: PIM-SM, PIM-DM, PIM-SSM
Traffic Management	Flexible QoS Queuing for UC Packets Separate QoS Queues for UC and MC Packets (10 each/port) 2-Rate, 3-Color Policing SP, WRR, WDRR Queuing Per-Port DSCP Per-Port Oversubscription

Accessories



Console Cable*1



Power Cords*2



Grounding Cable*1



Screws M4/M6*14



Rubber Pads*2



Rack Mount Brackets*4



Dummy PSU Bracket*1



User Manual*1

Get started today

Getting started with FS N-series switches are easy. In fact, you can explore and test without spending too much time. Try FS N series switches, bringing the scalability and agility to the network edge while also lowering total cost of ownership.



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