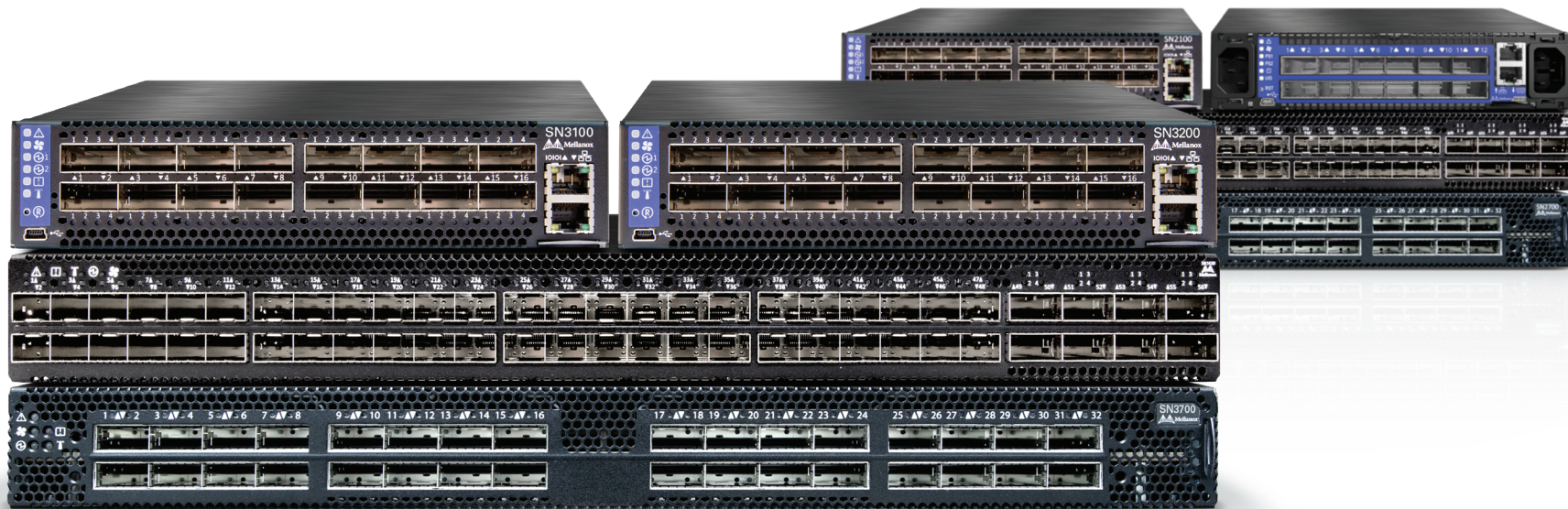




# Ethernet Brochure



Uncompromising Performance.  
Elastic Network Manageability.  
Maximum System Productivity.



10/25/40/50/100/200/400Gb/s  
Ethernet Switch System Family

Mellanox provides the **highest performing Open Ethernet switch systems** at speeds of 10/25/40/50/100/200/400Gb/s, enabling Data Centers, Cloud Computing, Storage, Web2.0 and High Performance Computing applications to operate at maximum functionality at any scale.

## BENEFITS

- Software Defined Networking (SDN) support
- Efficiency
- Easy scale from one to thousands of nodes and switches
  - Configure and manage the data center from a single location
- Elasticity
  - Low-latency at any port speed
  - Full cut-through switching
- Arranged and organized data center
  - Supports speeds of 1/10/25/40/50/100/200/400GbE
  - Easy deployment
  - Easy maintenance
- Unprecedented performance
  - Storage and server applications run faster
- Running Mellanox Onyx™, Cumulus Linux, SONiC and native Linux
  - Alternative operating systems over ONIE

The Mellanox family of Open Ethernet switches provides the most efficient network solution for the ever-increasing performance demands of data center applications.

The Open Ethernet family includes a broad portfolio of 1RU-sized switches, ranging from 16 ports through 128 ports and with speeds from 1Gb/s to 400Gb/s, allowing the construction of purpose-built data centers at any scale with any desired blocking ratio. This enables network and data center managers to design and implement a cost-effective switch fabrics by the “pay as you grow” principle, in which the fabric can be composed of a few servers in the beginning, and grow gradually into hundreds of thousands of servers. Incorporating SDN attributes, the Mellanox Ethernet solution rewards the data center administrator with tools that provide a clean, simple and flexible view, and orchestration capabilities for the infrastructure. The result is an easily accessible framework that provides the data center applications with utmost elasticity.

Accompanied by Mellanox’s Networking Orchestrator (NEO™), as well as the world’s fastest network interface cards, interconnect modules and cables, Mellanox provides a complete end-to-end Ethernet solution that scales to perform at the highest level.

With its unique design principles and uncompromised quality, Mellanox’s latest generation of Ethernet data center switch integrated circuits draws a new benchmark line for industry performance.

These switch products feature the market's lowest latency with the most efficient cut-through technology, optimized for big data and high performance computing applications, running from 1GbE all the way up to 400GbE. Regardless of the network load or traffic patterns, these switch products handle all incoming data with the lowest latency and transfer the data to the destinations without dropping a single packet.

Another valuable feature of Mellanox switch devices and systems is their industry lowest power consumption. The unique ASIC design of these Mellanox switch devices smartly manages the consumption of power such that running at higher speed at maximum performance 100% of the time does not translate into a linear increase in power. Switch fabrics using Mellanox devices enjoy the world's lowest power consumption per Gb/s of bandwidth at any line rate and at any network scale, providing the most cost-effective solution for any and all use cases.

The SN3000 and SN2000 series offers three modes of operation:

- Preinstalled with Mellanox Onyx™ (successor to MLNX-OS® Ethernet), a home-grown operating system utilizing common networking user experiences and an industry standard CLI.
- Preinstalled with Cumulus® Linux, a revolutionary operating system, taking the Linux user experience from servers to switches and providing a rich routing functionality for large scale applications.
- Bare metal including ONIE image ready to be installed with the aforementioned or other ONIE-mounted operating systems.

## FEATURE SUMMARY

### HARDWARE

- 1GbE to 400GbE per port
- Zero packet loss performance at all levels
- Full bisectional bandwidth of all ports
- All port connectors support passive and active cables
- Redundant auto-sensing 110/220VAC power supplies
- Per port status and link activity LEDs
- System, fans and PS status LEDs
- Hot-swappable replaceable fan trays

### MANAGEMENT

- Comprehensive fabric management
- OpenFlow and subnet management
- Secure, remote configuration and management
- Performance/provisioning manager
- Quality of Service based on traffic type and service levels
- Cluster diagnostic tools for single node, peer-to-peer and network verification
- Switch chassis management
- Error, event and status notifications

## COMPLIANCE

### SAFETY

- CB
- cTUVus
- CE
- CU

### EMC (EMISSIONS)

- CE
- FCC
- VCCI
- ICES
- RCM

### ENVIRONMENTAL

- EU: IEC 60068-2-64: Random Vibration
- EU: IEC 60068-2-29: Shocks, Type I / II
- EU: IEC 60068-2-32: Fall Test

### OPERATING CONDITIONS

- Temperature: Operating 0°C to 40°C, Non-Operating -40°C to 70°C
- Humidity: Operating 5% to 85%
- Altitude: Operating -60m to 3200m

## SN2000 SERIES



**SN2010**



**SN2100**



**SN2700 / SN2740**



**SN2410**

### General Specs

400GbE Ports	--	--	--	--
200GbE Ports	--	--	--	--
100GbE Ports	4	16	32	8
50GbE Ports	8	32	64	16
40GbE Ports	4	16	32	8
25GbE Ports	34	64	64	64
10GbE Ports	34	64	64	64
Height	1RU	1RU	1RU	1RU
Switching Capacity [Tb/s]	1.7	3.2	6.4	4
FRUs	--	--	PS and fans	PS and fans
PSU Redundancy	✓	✓	✓	✓
Fan Redundancy	✓	✓	✓	✓
CPU	x86	x86	x86	x86
Power Consumption [W]	57	94.3	150	165
Wire Speed Switching [Bpps]	1.26	2.38	4.76	2.97

## SN3000 SERIES



**SN3800**



**SN3700**



**SN3510**



**SN3200**

### General Specs

Connectors	64 QSFP28 100GbE	32 QSFP56 200GbE	6 QSFP-DD 400GbE + 48 SFP56 50GbE	16 QSFP-DD 400GbE
400GbE Ports	--	--	6	16
200GbE Ports	--	32	12*	32*
100GbE Ports	64	64*	24*	64*
50GbE Ports	128*	128*	48+48*	128*
40GbE Ports	64	32	12	32
10GbE/25GbE Ports	128*	128*	48+48*	128*
Height	2U	1U	1U	1U
Switching Capacity [Tb/s]	12.8	12.8	9.6	12.8
FRUs	✓	✓	✓	--
PSU Redundancy	✓	✓	✓	TBD
Fan Redundancy	✓	✓	✓	TBD
CPU	x86	x86	x86	x86
Power Consumption [W]	TBD	TBD	TBD	TBD
Wire Speed Switching [Bpps]	8.33	8.33	7.14	8.33

\*Supported using split cables.



# Ethernet



For detailed information on features, compliance, and compatibility, please see each product's specific product brief.

## WARRANTY INFORMATION

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Mellanox switches come with a one-year limited hardware return-and-repair warranty, with a 14 business day turnaround after the unit is received. For more information, please visit the [Mellanox Technical Support User Guide](#).

## ADDITIONAL INFORMATION

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Support services including next business day and 4-hour technician dispatch are available. For more information, please visit the [Mellanox Technical Support User Guide](#). Mellanox offers installation, configuration, troubleshooting and monitoring services, available on-site or remotely delivered. For more information, please visit the [Mellanox Global Services web site](#).



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\*This brochure describes hardware features and capabilities. Please refer to the driver release notes on [mellanox.com](http://mellanox.com) for feature availability.

\*Actual product may differ from the images.

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