

TERALYNX® 8

Data Center Ethernet Switch

PRODUCT BRIEF

The world's highest performance programmable switch – 8 Tbps through 25.6 Tbps featuring industry-leading analytics, largest on-chip buffer and lowest-latency

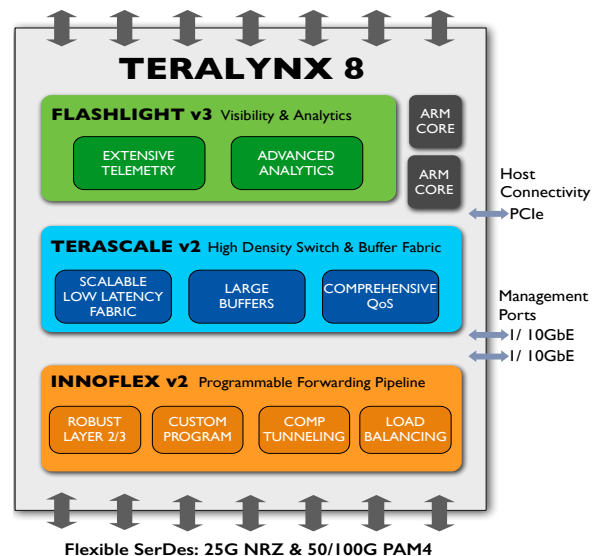
OVERVIEW

Data centers are set to dominate IT infrastructure across Cloud, Edge and Enterprise. In addition to an unlimited thirst for bandwidth, critical data center requirements include deeper, actionable analytics, programmability for fast feature introduction & investment protection, best power efficiency, low latency and flexibility. These factors demand a fresh, innovative and focused approach to architecting highly scalable, high performance networking silicon.

Innovium is the only provider offering robust PAM4 networking solutions with a consistent feature set for 1 to 25.6Tbps products today with architecture scaling to 51.2Tbps+. Innovium's TERALYNX family delivers low latency, advanced telemetry, rich tunneling and programmability to enable unmatched visibility while easily adapting to new network protocols. Introduction of TERALYNX 8 along with TERALYNX 5 and TERALYNX 7 provide a comprehensive switch silicon portfolio for ToR and upper network tiers of cloud and edge data centers. The TERALYNX 8 family supports FLASHLIGHT™ v3, Innovium's unique telemetry with the ability to pinpoint any network delays, drops, or congestion and correlate network events to the application level, all in hardware with zero impact to performance. Modern software for TERALYNX family, designed from the ground up, has been hardened to be production grade so customers can deploy these switches with confidence.

KEY FEATURES

- 25.6 Tbps throughput with 256x 112 Gbps SerDes
- Comprehensive IP forwarding and highly scalable/flexible layer 2 and 3 tables for IPv4, IPv6 and hybrid networks
- Line-rate programmability to accommodate future networking protocols with software upgrades
- Extensive tunneling capabilities such as IP-in-IP, GRE, MPLS, VXLAN and Geneve
- Very low latencies - cut-through and store-and-forward
- Advanced QoS/traffic management feature set such as DCB, RDMA/RoCE
- FLASHLIGHT™ v3 innovations delivers breakthrough visibility and telemetry addressing Cloud customer requirements



KEY BENEFITS

- Industry leading performance and scale enables customers to deploy fewer network switches and tiers dramatically reducing cost, power, latency & management
- Proven, innovative & highly scalable architecture delivers 64 x 400Gbe, 128 x 200G and 256 x 100GbE ports
- 100G LR SerDes enables higher scale IO with backward compatibility to 50G PAM4 & 10/25G NRZ
- Breakthrough visibility and analytics capabilities enable predictive, faster & more accurate issue resolution, higher automation and self-healing autonomous networks
- Superior power efficiency enables customers to design 1RU 32 x 800G switches for best power and cost per bit
- InnoFlex™ programmable forwarding pipeline enables support of custom & new standard protocols without requiring ASIC spins to future proof the network

CUSTOMER DEPLOYMENT SCENARIO

- Data Center networking infrastructure for private and public cloud data centers
- Ideal for all network tiers including leaf, spine and DCI
- High density 100/200/400/800G switches

SOFTWARE SUPPORT

- Common software development kit (SDK) across entire Innovium Product line
- High Performance and highly resilient, modern software with a clean sheet design
- Support for open APIs including OCP SAI and SONiC

Form Factor

1RU, 32 x 800G
(QSFP-DD800 or 800G-OSFP)

2RU, 64 x 400G
(QSFP-DD or OSFP or QSFP112)

4RU, 128 x 200G
(QSFP-56)

Use Case

- 800G switch for all network tiers including leaf, spine and DCI

- 400G switch for all network tiers including leaf, spine and DCI

- 200G switch for all network tiers including leaf, spine and DCI

Key Benefits

- Enables most compact 1RU 25.6T switch system. Together with 800G optics, delivers the best cost per bit

- Highest radix 400G switch using single chip

- Highest radix 200G switch using single chip

TERALYNX 8 Product Family

SKU / Part Number	Capacity (Tbps)	# of SerDes @ Gbps	10/25/50G ports	100G ports	200G ports	400G ports
IVM88700	25.6	256 @ 10/25/50/100	256	256	128	64
IVM88500	12.8	256 @ 10/25/50	128	128	64	32
IVM88300	8.0	160 @ 10/25/50	80	80	40	20

About Us: Innovium is a leading provider of high performance, innovative switching silicon solutions for cloud, enterprise and edge data centers. Today, Innovium TERALYNX family delivers software compatible products ranging from 1Tbps to 12.8Tbps with unmatched telemetry, low latency, programmability, and large buffers, with a feature rich architecture that scales to 51.2Tbps+. Innovium's products have been selected and validated by market-leading switch OEM, ODM and cloud providers. The company is headquartered in Silicon Valley, California and is backed by leading venture capital firms including Greylock Partners, Walden Riverwood, Capricorn Investment Group, Qualcomm Ventures, S-Cubed Capital and Redline Capital.

Innovium

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