

# TERALYNX™ 5

## Data Center Ethernet Switch Family

*The World's Most Advanced 1.2 to 6.4Tbps NRZ/PAM4 Switch for ToR, Enterprise, Edge and 5G*

### OVERVIEW

TERALYNX 5 is Innovium's Ethernet switch silicon family for applications ranging from 1.2 to 6.4Tbps. The TERALYNX 5 feature set is unprecedented for products in this class, with the largest on-chip buffers, highest table size, large ACLs and powerful analytics, enabling feature rich solutions for ToR, Enterprise, Edge, and 5G applications with up to 128x NRZ/PAM4 SERDES, 10GbE to 400GbE ports and industry-best performance per \$ and performance per watt.

As data center architectures are increasingly utilized across the entire range of IT infrastructure, TERALYNX 5 leverages the heavily patented and production-proven technologies powering leading hyperscale data center switch equipment based upon Innovium's flagship 12.8T TERALYNX 7 line. The two fully-compatible product families together scale a single architecture from the server to the network core with industry-leading power and cost efficiency.

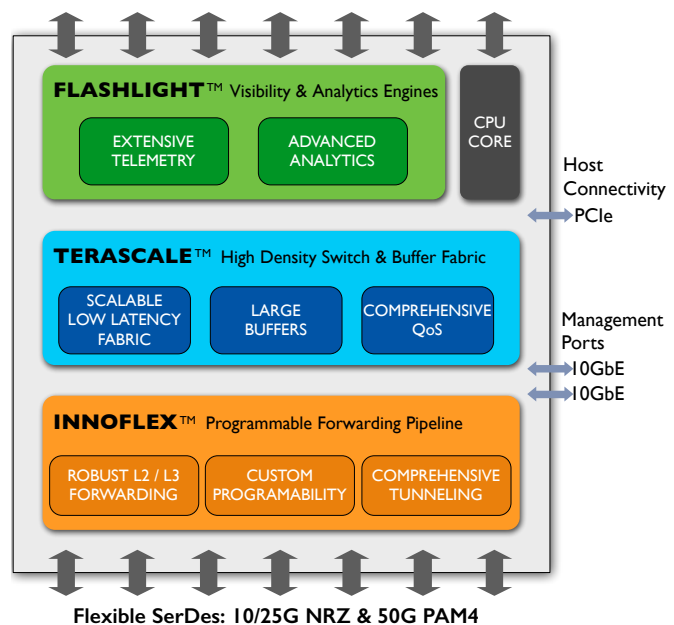
### KEY FEATURES

- 1.2 to 6.4T Layer 2 & Layer 3 Programmable Switch Silicon with 128 10/25G NRZ and 50G PAM4 Serdes
- Up to 128 ports of 10/25/50GbE, 64 ports of 100GbE, 32 ports of 200GbE or 16 ports of 400GbE
- Largest on-chip buffer for switch in this class (45MB+)
- Supports multicast, cut-through, and store-and-forward with best-in-class cut-through latency.
- Large table resources with flexible allocation across L2, IPv4 and IPv6
- Extensive tunneling capabilities such as IP-in-IP, GRE, MPLS, VXLAN and Geneve.
- Advanced QoS/traffic management feature set such as DCB, RoCE v2
- IEEE 1588 v2 timing synchronization required in 5G and other service provider infrastructure
- Fully SW and architecture compatibility with TERALYNX7, scaling solutions to 12.8Tbps
- FLASHLIGHT line-rate HW analytics with unprecedented microburst Telemetry with application level correlation

- InnoFlex™ line rate standards based programmable forwarding pipeline enables support of custom & new standard protocols without requiring ASIC spins to future proof the network
- Available with Innovium's high performance software development kit (SDK) which allows for easy integration with NOS
- Wide range of pin-compatible SKU options: 1.2Tbps, 2.4Tbps, 3.2Tbps, 4.8Tbps, 6.4Tbps
- Up to 2x+ performance per \$ advantage vs. alternatives

### KEY BENEFITS

- Industry's only 50G PAM4 ToR, Enterprise, Edge and Service provider optimized Switch
- 50G SerDes lowers cost/bit and enables higher scale IO such as 200GbE & 400GbE with backward compatibility
- Breakthrough visibility and analytics capabilities enable predictive, faster & more accurate issue resolution, higher automation and self-healing autonomous networks



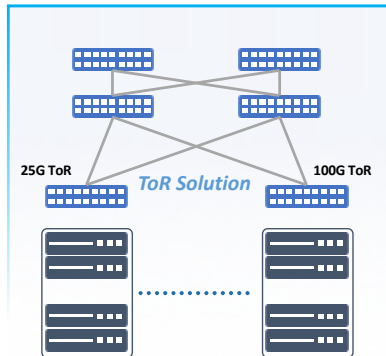
## CUSTOMER DEPLOYMENT SCENARIO

- Data Center networking infrastructure for the Cloud, Enterprise, Edge and 5G Data Centers
- Diasaggregated NVMe Storage Pods
- ToR Switch for Large Scale Data Center, Enterprise, Edge and 5G

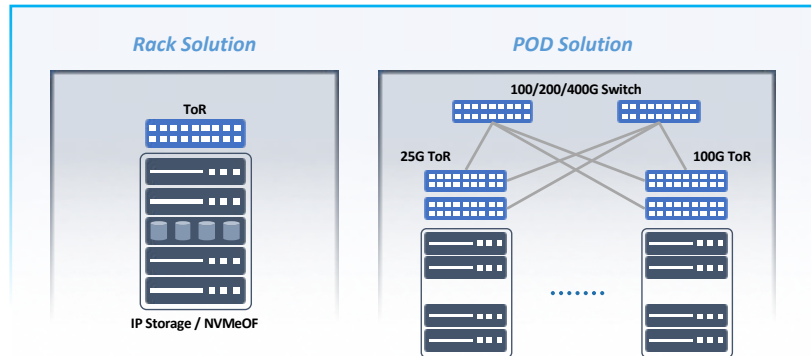
## SOFTWARE SUPPORT







- 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 (Switch Abstraction Interface)

Cloud Data Centers



Enterprise, Edge & 5G Data Centers



	Form Factor	Use Case	Key Benefits
	1U, half-width (1.6T): 16 x QSFP 28	• Small server storage deployment	• Fit redundant switches in 1RU
	1U (2T): 48x SFP 28 + 8x QSFP 28	• High volume 10/25G ToR	• Most advanced 10/25G ToR • Best perf / \$ & perf / W
	1U (3.2T) 32 x QSFP 28	• High volume 100G ToR	• Most advanced 100G ToR • Best perf / \$ & perf / W
	1U (4.8T): 48x SFP 56 + 6x QSFP-DD	• Next-gen 10/25/50G ToR	• Future proof ToR for 50G servers & storage
	1U (6.4T): 48x SFP-DD + QSFP-DD	• Next-gen 100G ToR for AI/ML/GPU servers	• Most advanced and best perf / \$
	1U (6.4T): 16 x QSFP-DD	• 400G switch for enterprise & edge	• Optimized 400G switch • For smaller deployment

TERALYNX™5 Product Family						
SKU / Part Number	Capacity (Tbps)	# of SerDes @ Gbps	10/25/50G ports	100G ports	200G ports	400G ports
IVM55610	6.4	128 @ 10/25/50	128	64	32	16
IVM55510	4.8	128 @ 10/25/50	96	48	24	12
IVM55300	3.2	128 @ 10/25	64	32	16	-
IVM55200	2.4	96 @ 10/25	48	24	12	-
IVM55100	1.2	48 @ 10/25	24	12	6	-

### About Innovium

Innovium is a leading provider of high performance, innovative switching silicon solutions for cloud, enterprise and edge data centers. Innovium TERALYNX family delivers software compatible products ranging from 1Tbps to 12.8Tbps with unmatched telemetry, low latency, programmability, and large buffers. 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 Greyllock Partners, Walden Riverwood, Capricorn Investment Group, Qualcomm Ventures, S-Cubed Capital and Redline Capital. For more information, please visit: <http://www.innovium.com>

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