LIGHTCOUNTING

ETHERNET, INFINIBAND AND OPTICAL SWITCHES FOR CLOUD DATACENTERS

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Abstract

This report offers analysis and a forecast for the most interesting segment of the switching ASIC market – high bandwidth (3.2T and above), low latency chips deployed in Cloud datacenters. In addition to Ethernet switches, the report now includes InfiniBand and Optical Circuit Switch markets. It excludes products developed for enterprise and telecom networks as well as switch ASICs developed for routers.

Demand for Ethernet switches from Cloud companies created a new market segment for very high bandwidth switches and switch ASICs. It also transformed the industry supply chain as Cloud companies started using internally designed Ethernet switches and opening these “white box” designs to a broader community.

Increasing focus on AI applications, boosted demand for low latency InfiniBand switches. Google also disclosed their work on using optical circuit switches to improve performance, while reducing cost and power consumption of AI Clusters. We expect both solutions to be widely adopted by the industry.

The report offers brief profiles of the leading suppliers of merchant switch ASIC and system integrators, offering products to Cloud companies, and includes a forecast for sales of 25.6T, 51.2T and 102T switch ASICs with co-packaged optics (CPO).

LightCounting is a market research company focused on the in-depth study of high-speed interconnects for the datacom, telecom, and consumer communications markets. Our research covers the whole supply chain from wireless to optical and semiconductor components, to modules, sub-systems, and their applications in telecom, datacom and AI clusters.

Our industry reputation was built by providing solid market data and objective analysis to help industry executives in making tactical and strategic business decisions and to see past all the market hype, rumors, press reports, blogs and other distortions that so often complicate and confuse many decision-making processes.

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