

High speed VCSELs and photodiodes

Modern Datacom applications require high-class optical components. Vertical-cavity surface-emitting lasers (VCSELs) provide high-speed data transmission at low power consumption.

Due to their design, VCSELs have a circular beam profile with a low divergence angle, which ensures efficient coupling to optical fibers. In addition, the vertical beam guidance allows the realization of emitter arrays on one single chip.

TRUMPF Photonic Components offers a comprehensive VCSEL portfolio for all main applications such as Transceivers (TxRx), Active Optical Cables (AOC) and Embedded Optical Modules. The corresponding photodiodes complete the range of products.

On request, customized solutions can be developed, e.g. in terms of array format, chip layout, emission wavelength, solder bumps or bottom-emission.

Large scale production capabilities and long-standing cooperation have made TRUMPF a competent partner also for high volume consumer markets.

TRUMPF attaches great importance to the reliability of the devices. All products are subjected to extensive lifetime tests before coming onto the market. Therefore, prominent customers have trusted in the expertise of TRUMPF Photonic Components for many years.

Datacom Product Portfolio

Data Centers

High Performance Computers

VCSEL and photodiodes of TRUMPF Photonic Components meet highest standards in performance and reliability, suitable for Ethernet, Fibre Channel, and Infiniband applications.

Datacom Product Portfolio – High Performance Computers		
Product Type	Data Rate	TRUMPF Photonic Components Product
VCSEL	5G	ULM850-05-TN-N0101L
	14G	ULM850-14-TT-F01xxU
	25G	ULM850-25-TT-N01xxU
PD	10G	ULMPIN-10-TT-N01xxU
	14G	ULMPIN-14-TT-N01xxU
	25G	ULMPIN-25-TT-N01xxU

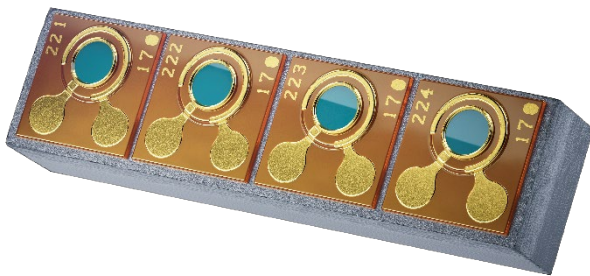
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Consumer Datacom

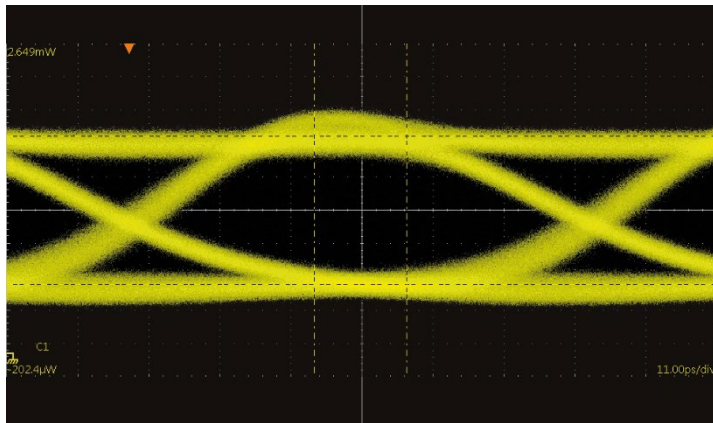
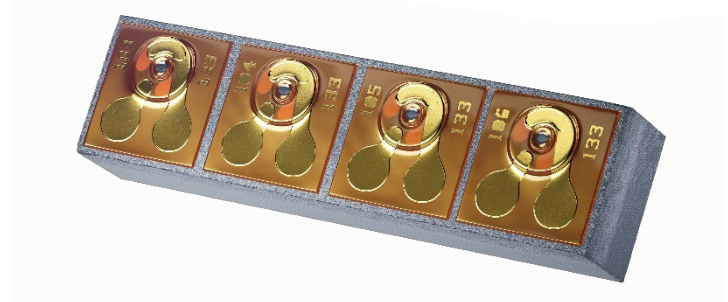
TRUMPF Photonic Components offers cost-efficient solutions, especially tailored for high volume consumer applications, such as HDMI, USB, or Thunderbolt.

Datacom Product Portfolio – Consumer Datacom		
Product Type	Data Rate	TRUMPF Photonic Components Product
VCSEL	10G	ULM850-10-TN-N0101T
	14G	ULM850-14-TT-F01xxC
PD	10G	ULMPIN-10-TT-N01xxC
	14G	ULMPIN-14-TT-N01xxC

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VCSEL and Photodiode Array



Eye diagram of a TRUMPF VCSEL at 85°C and a data rate of 14 Gbit/s (PRBS31)

