High Speed HCG VCSEL

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Multimode vertical cavity surface emitting lasers (VCSELs) are attractive for short-reach optical interconnects used in data centers and AI computing due to their low power consumption and cost effectiveness. However, the modulation bandwidth bottleneck as well as the chromatic dispersion are limiting VCSEL's transmission volume and distance. High contrast meta-surface (HCM) technology such as high contrast grating (HCG) could be used to control the transverse modes, enhance the bandwidth and improve the beam quality. HCG VCSEL's supreme advantages in 3D sensing and high-power application will also be discussed.

Short Bio:

Jiaxing Wang received his PhD degree in Electronic Engineering from Tsinghua University. He was postdoc and associate research scientist at UC Berkeley, and now is R&D VP at Shenzhen Berxel Photonics, China.