



News

12.03.2018, San Diego, CA, USA

50G: Breakthrough in Transistor Outline Technology

SCHOTT Introduces 50G TO for Unprecedented Speed in Datacom Applications

San Diego, CA, USA – March 12, 2018 – Building on a storied 75-year track record of innovation, SCHOTT's 50G transistor outline (TO) Can Packages represent the start of a new chapter in the development of ultra-high-speed technology to further satisfy ever-increasing demand for deployment of the most capable networks possible. The announcement coincides with SCHOTT's participation at the [Optical Fiber Conference \(OFC\)](#), taking place in San Diego from March 13-15, 2018. Representatives from SCHOTT will be available at booth 2323 to discuss 50G TO and [other high-speed technologies](#).

50G TO is more than just a speed benchmark: it is a key that will open the door to new possibilities in network development sought after by industry leaders for many years. 50G TO will deliver 50 gigabaud single channel data transmission, enabling:

- 100 gigabit per second single channel with PAM4 modulation
- 200 gigabit per second with NRZ (without PAM4)
- 400 gigabit per second with four channel PAM4 modulation

Applications for 50G TO Can Packages encompass a broad range of possibilities. These include 50G Ethernet, 64G fiber channel, and up to 400G with QSFP transceivers. Particularly notable is the capability for 50G CPRI up to 40 kilometers where EML lasers would be necessary.

On a broader scale, this means a more capable online-connected world with datacenters now supported by longer single-mode reach links. With [20.8 billion online-connected devices estimated to be in use in 2020](#) (up from 6.4 billion in 2016), high-speed development enabled by 50G TO will pave the way for much-needed bandwidth increases on datacom networks. 50G TO packages will also enable faster data transmission to wireless stations (cell towers) to help the telecom industry make the step towards deploying 5G cellular networks – an improvement that will deliver speeds exponentially faster than current 4G infrastructure.

High-Speed Innovation: new TO components for specialized and harsh environment applications

SCHOTT offers a [broad portfolio of optoelectronic components that will be on display at OFC](#). For datacenter infrastructure, SCHOTT manufactures 28G TO38 Can Packages for 100G speeds which are quickly becoming a high-demand industry standard. SCHOTT's high-refractive-index molded lens cap enables reduced spot size fitting of 25G/28G small-active-zone photo diodes, while its industry-first hermetic full copper TO header offers high thermal dissipation capabilities that support optimal laser performance even when operating in industrial temperature (I-Temp) conditions.

SCHOTT prides itself on being a development and innovation partner for its customers. Engineers and sales managers from the United States, Germany, and Singapore will be available at OFC booth 2323 to discuss how 50G TO (for which laboratory samples are ready) and other high-speed capabilities can be custom-developed for utilization in a variety of applications.

Links:

- <https://www.ofcconference.org/en-us/home/>
- https://www.us.schott.com/epackaging/english/overview/applications/comm_data/
- <https://www.gartner.com/newsroom/id/3165317>

SCHOTT is a leading international technology group in the areas of specialty glass and glass-ceramics. The company has more than 130 years of outstanding development, materials and technology expertise and offers a broad portfolio of high-quality products and intelligent solutions. SCHOTT is an innovative enabler for many industries, including the home appliance, pharma, electronics, optics, life sciences, automotive and aviation industries. SCHOTT strives to play an important part of everyone's life and is committed to innovation and sustainable success. The group maintains a global presence with production sites and sales offices in 33 countries. With its workforce of approximately 15,000 employees, sales of 2.05 billion euros were generated in fiscal year 2016/2017. The parent company, SCHOTT AG, has its headquarters in Mainz (Germany) and is solely owned by the Carl Zeiss Foundation. As a foundation company, SCHOTT assumes special responsibility for its employees, society and the environment.

Press contact

SCHOTT North America, Inc.
Kevin Waxman
Market Intelligence & Communications Specialist

15 Wells Street
Southbridge, MA USA 01550

Phone: +1 (508) 765-7458

www.schott.com
