

ABSTRACT

The present disclosure addresses the problem of large space occupation and high-power consumption in existing pluggable transceiver series by introducing a solderable, compact, high-speed optical interconnect. Current QFSP transceivers
5 occupy excessive space on printed circuit boards, consume more power, and only provide optical connectivity for edge servers. The proposed solution, a modular fiber-based optical interconnect, is designed to bring optics closer to the processor, enabling easier integration on circuit boards and resulting in shorter transmission lines. Falling under the linear pluggable optics category, this technology is gaining
10 traction due to its power savings and enhanced link performance, which are essential for data centres and near-edge cloudlets.

FIG.2C