# The function of a wireless silicon photonics module

## Overview

By leveraging silicon as a platform for photonic components, these modules enable faster, more efficient data transfer over optical fibers. The transceiver modules at the ends of the fiber link are a key driver of the performance of the optical interconnect. These are the pluggable optical modules that convert electrical signals to optical signals and back again. More simply, while traditional semiconductors like CPUs, GPUs, and SoCs in computers and smartphones are silicon-based integrated circuits, silicon. Optical modules have a wide range of applications, with access network optical modules accounting for less than 15% of the market, including PON modules for wired access and 5G fronthaul modules for wireless base stations. While silicon photonics integration is used in these scenarios, traditional. Silicon photonics (SiPh) is an advanced technology that merges silicon-based semiconductor manufacturing with photonic components for data transmission, processing, and sensing.

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