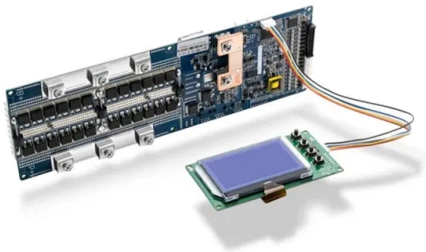
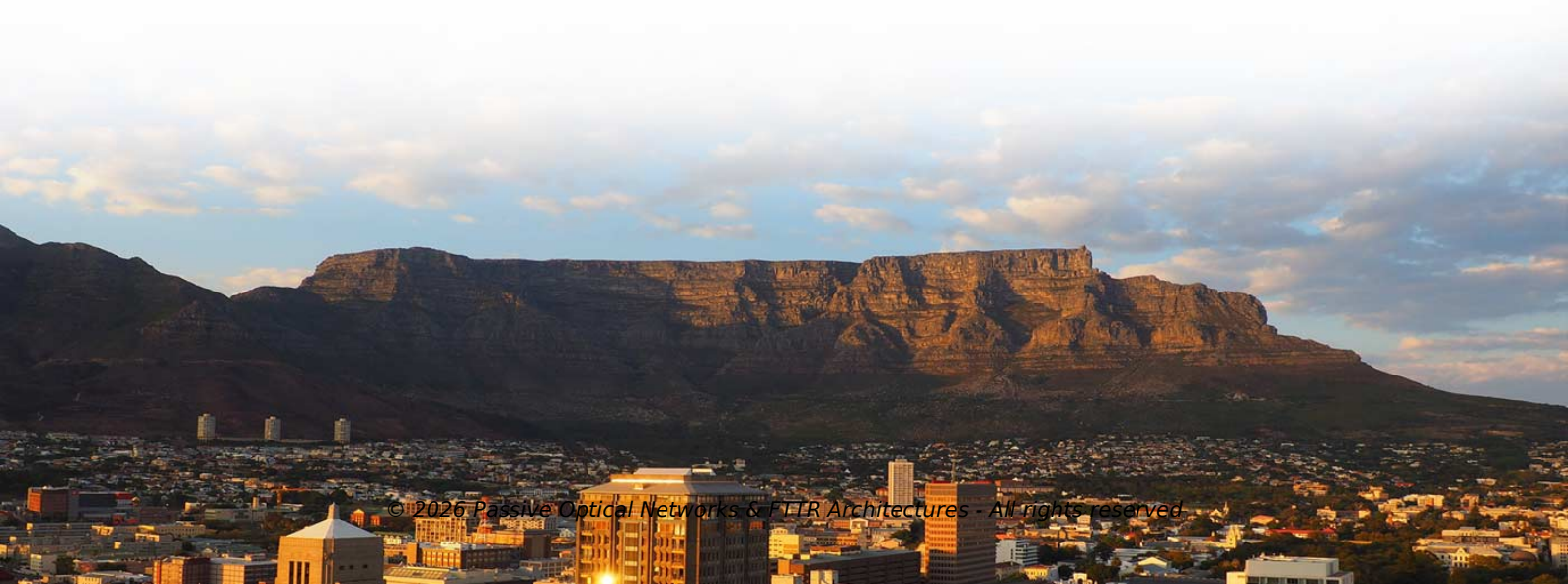
Future Development of LPO Optical Modules



Overview

The Linear Drive Pluggable Optics (LPO) Modules market is poised for significant expansion, driven by escalating demand for enhanced bandwidth and superior data transmission speeds in data centers and 5G networks. The idea is simple: instead of a DSP (digital signal processor) inside the module – replacing it with transimpedance amplifier (TIA) and a driver chip with high linearity and EQ capability – LPO shifts signal processing into. Silicon photonics (SiPh) offers a high degree of integration and cost-effectiveness, helping to enhance optical module performance while driving down costs. It leverages mature CMOS semiconductor manufacturing processes to integrate optical components (for signal generation, modulation, and detection) onto silicon substrates with. In response, several solutions such as Linear Receive Optics (LRO), Linear Pluggable Optics (LPO) and Co-Packaged Optics (CPO) have been proposed.



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Linear Pluggable Optics_V2

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