

Next-Generation 10G PON Solution Enhances Multimode ONU Design

PRODUCTS

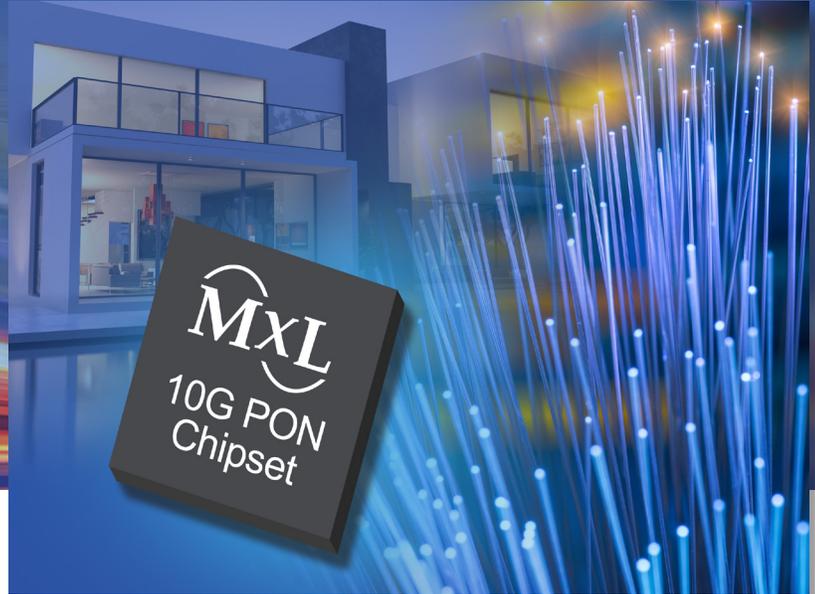
PRX120	10G PON SoC for residential SFU ONU applications
PRX126	10G PON SoC for SFP+ ONU applications
PRX321	10G PON SoC for business SFU ONU applications

FEATURES

- Supports *ITU-T GPON, XG-PON, XGS-PON, NG-PON2* standards
- Supports *IEEE 1588v2/PtP/SyncE/ToD*
- Embedded 1000/2500 Base-T Phy
- 2 × 10G Ethernet Interface (XFI)
- Carrier grade VoIP
- Trusted execution processor and secure boot
- LAN MACsec

APPLICATIONS

- Single family unit (SFU)
- SFP+ Small form-factor pluggable Optical Network Unit (ONU)
- Home gateway unit
- Distribution point unit (DPU) and multi-dwelling unit (MDU)



Flexible 10G PON Multi-Mode Solution for FTTx Deployments

The Maxlinear Broadband Forum BBF.247 certified PRX SoC family provides the path to scale from gigabit to 10G fiber access solutions. MaxLinear fiber system-on-chip products support ITU-T PON environments such as GPON, XG-PON, XGS-PON, NG-PON2, and also active optical Ethernet point-to-point connections. The PRX devices are targeting applications that include fiber to the home (FTTH) optical network unit (ONU) solutions—for example, single family units (SFU), small form-factor pluggable plus (SFP+), home gateway units (HGU), or 5G infrastructure equipment—and fiber to the distribution point (FTTdp) applications.



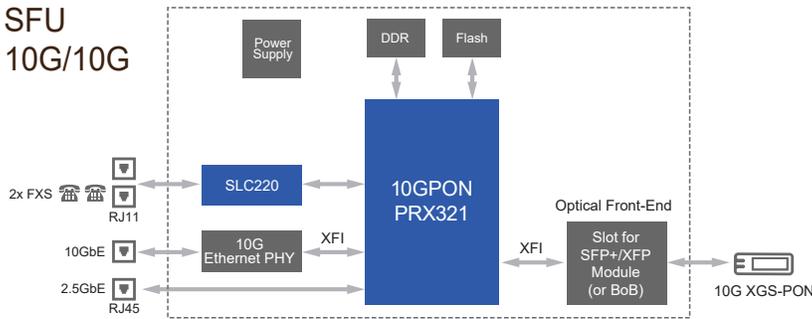
10G PON Chipset Solution

Highest Integration with Power and Performance Efficiency

The MaxLinear 10G PON chipset is a cost-effective, low-power, and highly integrated design. It meets all kinds of service delivery demands, including residential and business applications. It integrates a 10G PON MAC, SerDes, XFI, 2.5G Ethernet PHY, PCIe* v3.0 interfaces, and a DDR3/4 controller.

The MaxLinear 10G PON chipset also offers quality of service (QoS) and power management, carrier-grade features, timing synchronization, and OAM hardware acceleration. Featuring a dual-core, multithread processor and dedicated packet processing, this processor delivers unmatched service application flexibility with benchmark performance. Additionally, the supported network timing synchronization protocols, such as *IEEE 1588v2*, synchronous Ethernet, or time of day (ToD) ensures clock accuracy for 5G/LTE mobile base stations.

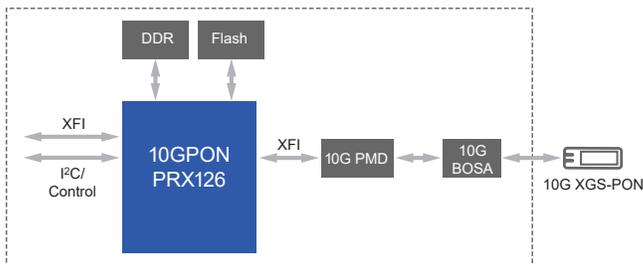
SFU 10G/10G



10G PON Single Family Unit

- Integrated 2.5G Ethernet PHY
- Industrial temperature range (from -40°C to 85°C, from 5% to 95% relative humidity)
- *IEEE 1588v2* and synchronous Ethernet support
- VoIP support
- Hardware OAM support (including Y.1731)
- Additional second UNI of XFI through external 10G Ethernet PHY
- Low-power mode support and eligible for BOSA-on-Board (BoB) design

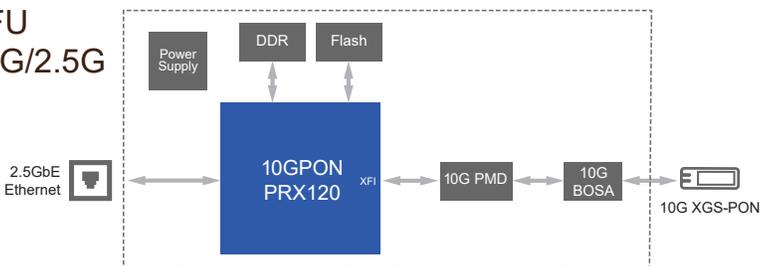
SFP+ 10G/10G



10G PON SFP+ Optical Network Unit

- *IEEE 1588v2* and synchronous Ethernet support
- Industrial temperature range (from -40°C to 85°C, from 5% to 95% relative humidity)
- XFI interface to connect to host network processor

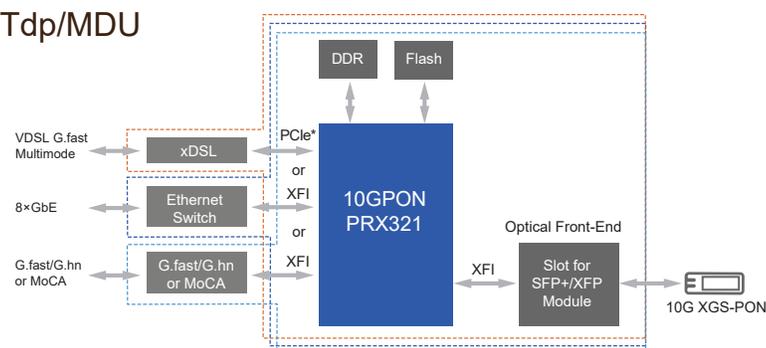
SFU 10G/2.5G



10G PON Single Family Unit

- Optional WAN active Ethernet
- Integrated 2.5G Ethernet PHY
- Optional VoIP support (up to 2x FXS)
- *IEEE 1588v2* and synchronous Ethernet support
- Low-power mode support and eligible for BOSA-on-Board (BoB) design

FTTdP/MDU



10G PON Fiber to the Distribution Point/Multi-Dwelling Unit

- Optimized power mode management that enables reversed power
- G.int and fragmentation/defragmentation up to 8-port DPU without network processing unit (NPU)
- Delivery of GbE service over copper wires with MACsec on each client XFI interface to connect to host network processor

Product Information

Product	Description	Package
PRX120	10G PON SoC for residential SFU ONU applications	FCFBGA-296
PRX126	10G PON SoC for SFP+ ONU applications	FCFBGA-287
PRX321	10G PON SoC for business SFU ONU applications	FCFBGA-296



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