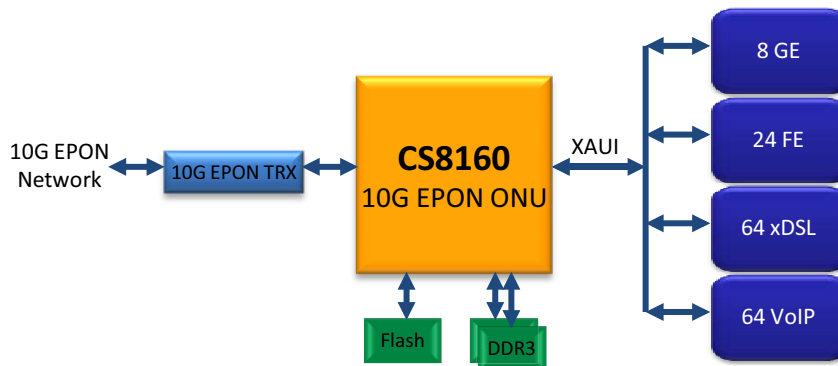## Functional Description

- 10GEPON Symmetric and Asymmetric Port with Integrated SerDes
- Multiple-LLID support with 8 LLIDs
- CTC-mode, SIEPON-compliant ONU Reporting
- UNI Ports of 10G XAUI (4 lanes SerDes), 4 ports of 1.25G SGMII (2 can be 2.5G)
- Packet buffer via External Memory (32b/16b DDR3)
- Supports SIEPON-compliant and CTC 3.0 Power Saving modes
- Embedded ARM9 CPU with MII Management ports and peripherals
- Subscriber Management of up to 256 subscribers
  - VLAN-based Subscriber ID
  - MAC/IP based Subscriber ID
  - Subscriber-aware Rate limiting/policing, VLAN translation, Shaping
- Deep classification from L2 MAC to L4 TCP/UDP ports
- 2K queues for high-density MDU application
- Hierarchical Upstream Scheduling and Downstream Scheduling
  - DBA Grant-based scheduling
  - Priority-based scheduling
  - Subscriber-based scheduling
- Supports FEC
- Decryption/Encryption
  - Per LLID based
  - 10G and 1G Decryption support for CTC, DPoE, and MACSec
- Flow Control with 802.1Qbb PFC support
- Supports IEEE 1588v2, IEEE 802.1AS, and 1PPS+ToD Timing Synchronization
- Supports the industrial temperature range of -40 to 85 °C
- Complete Cortina SDK package and reference applications
- Reference schematic and layout designs
- Evaluation platform available upon request

Application Diagram

High-Density Subscriber 10G EPON MDU Platform

Cortina in Communications

Cortina Systems, Inc. is a leading provider of high-performance communications semiconductor solutions enabling next generation network connectivity and efficient bandwidth from the core network to the home network. Our broad product portfolio includes carrier-class semiconductor devices for next generation optical transport and passive optical network systems, as well as data center connectivity and digital home solutions.

*Other names and brands may be claimed as the property of others.

Cortina Systems, Inc.
www.cortina-systems.com

Product Brief Number: 450824 – 1.0