Alphion®

Product Brief

AOLT-4000-GLCP

GPON Protected Path Line Card

Feature Summary

- 4 GPON active ports per card
- 4 optional protection ports per card
- 1:1 protectable when installed in an AOLT-4000 chassis
- Hot swappable cards
- Dual 10 Gb/s interface to the backplane for data-plane redundancy
- Dual 1 Gb/s interface to the backplane for control-plane redundancy
- On-board L2 switch with intelligent QoS & multicast support
- 8K MAC Address Table
- 4096 VLANs
- Full T-CONT type support
- 4095 Alloc-Ids per GPON port
- 256 allocations in BW MAP

Applications

The AOLT-4000-GLCP card provides the GPON interface with path protection for the AOLT-4000 system.

GPON

The AOLT-4000-GLCP card is a fully FSAN and ITU-T G.984 compliant GPON system, with support for a data rate of 2.488 Gb/s in the downstream and 1.244 Gb/s in the upstream direction and support for the Class B+ optical link budget on each GPON port. In addition, in accordance with G.984, the AOLT-4000-GLCP card supports AES (128-bit key) in the downstream direction and RS(255,239) FEC in the downstream and upstream directions.

Back Plane Connectivity

The AOLT-4000-GLCP provides redundant 10 Gb/s data plane connections to both the active and standby Switch and Timing cards (AOLT-4000-SWT) in the AOLT-4000 chassis. In addition, the GLCP also provides a redundant 1 Gb/s control plane connectivity to each of the two Control Cards (AOLT-4000-CTL) in the AOLT-4000 Chassis.

High Performance

The GLCP card incorporates a high performance full-wire-speed QoS enabled L2 switch that supports MAC learning and filtering, 802.1Q VLANs, 802.1ad Q-in-Q VLAN Stacking with single and dual VLAN tag manipulation, and QoS (802.1p and DSCP to 802.1p mapping). The GLCP also supports IGMP snooping and DHCP relay agent with Option 82 support for line identification.

GPON Protection

The GLCP supports a 1:1 GPON Path Protection with the optional redundant ports populated with the appropriate transceivers.

GPON DBA

The GLCP provides support for both NSR and SR DBA (G.984.3), piggy-back DBRu report mode 0, including concurrent support for DBR mode 0 and “idle GEM” mode. The GLCP supports all the T-CONT types (Type 1 through Type 5). It supports up to 4095 Alloc-Ids per GPON port and up to 256 allocations in BW MAP.

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