100G OTN
Product Brief

Overview

Aliathon Ltd. provides a completely flexible family of 100G solutions to address the next generation of OTN applications. Our designs can be tailored to provide transponder, 10x10G / multi-protocol Muxponder, add-drop multiplexors, repeaters and ODUmux solutions for a variety of standard & non-standard network nodes.

Our 100G offering complements our other TDM and packet products and can be integrated seamlessly to provide feature-sets not found in any off-the-shelf ASSP solutions.

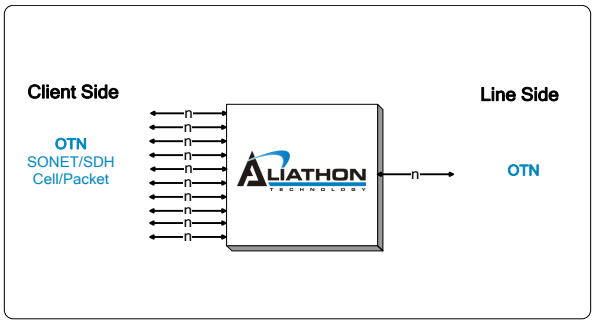
The target markets for these products includes traditional communications, network analysis / analytics, military and test & measurement These products are designed to leverage today's leading edge FPGA fabrics and provide the perfect mix of features, performance, flexibility, power and cost for your current and future needs.

General Features

- Single chip FPGA architectures, highly efficient resource sharing with no fitting issues.
- 200MHz+ push button performance with no timing closure issues.
- All products designed from ground up to allow future datapath & channel scaling.
- Enabling migration path to 400G solutions in the future with 112G throughput today.
- Line interfaces including OTL4.10, OTL4.4 and SFI-S.
- Client interfaces including OTL3.4, SFI5.1, XLAUI, STL256.4 and SFI/XFI.
- Complete range of mappings in to ODU4 inc;
  - LAN, WIS etc. as per ITU G.Sup43.
  - Transcoding of 10GFC & 40GE.
  - Transparent mappings of 10G and 40G SONET/SDH clients.
- Compliant to ITU-T G.709 standard.
- GMP (ODUflex) support.
- Client and line side support for G.709 GFEC and EFEC (>9db gain).
- Fully customizable statistics layer & CPU interface.
- OTN Standard Support inc;
  - Framing (FAS, OOF and LOF support).
  - OTUk section OH monitoring (k1..4).
  - ODUk path OH monitoring (k0..4, flex).
  - OPUk path OH monitoring (k=0..4).
- Enet LAN PHY support (PCS & MAC).
- Full support for SONET/SDH section, path and line OH monitoring.
- GFP Mapping supported.
- ODUMux providing multi-level multiplexing of LO ODUs in to HO ODUs.

Application Examples

Muxponder (muxing lower rate signals to higher rate carriers).



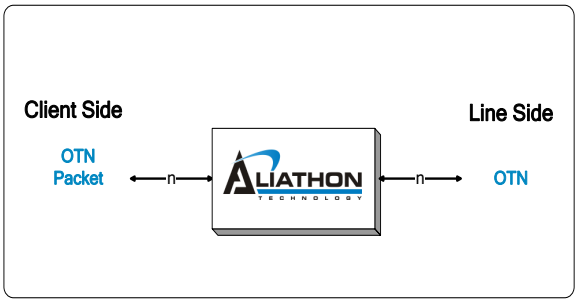
Client Side

- OTN (OTU1, 2, 3).
- SONET/SDH (OC768/STM256, OC192/STM64, OC48/STM16, OC12/STM4, OC3/STM1).
- Cell/Packet (GE, FC, PoS/HDLC, ATM).

Line Side

- OTN (OTU4 (w/GFEC or EFEC).

Transponder (termination & mapping at similar rates,100G<>100G).



Client Side

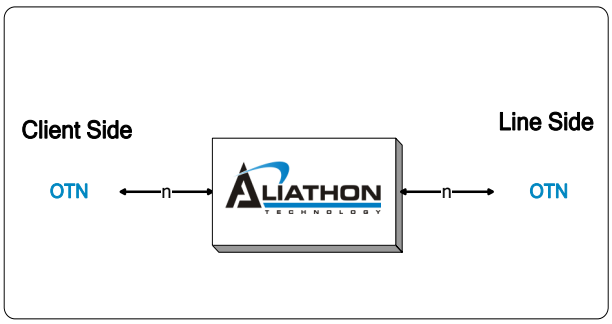
- 100G Packet (100GE).
- OTN (OTU4 w/GFEC).

Line Side

- OTN (OTU4 w/GFEC or EFEC).

Application Examples continued

Regenerator / Repeater (termination & re-transmit using the same payload structure).



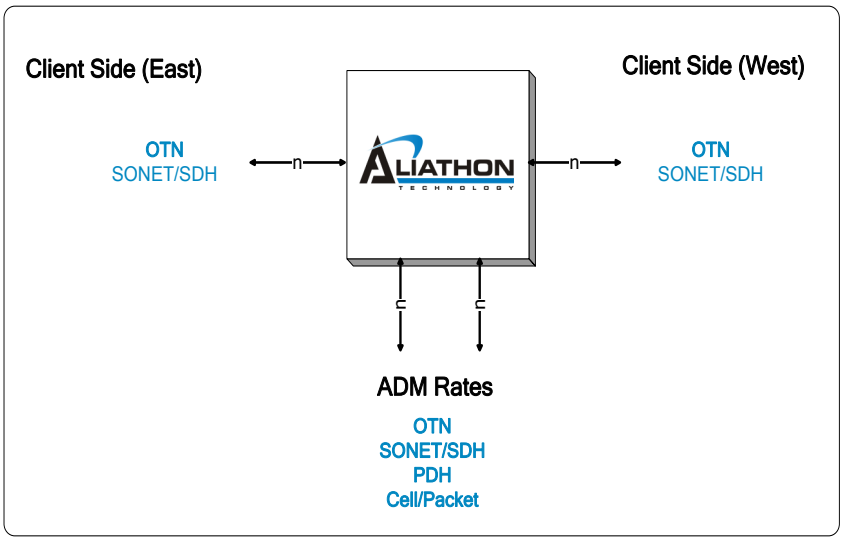
Client Side

- OTN (OTU4 w/GFEC or EFEC).

Line Side

- OTN (OTU4 (w/GFEC or EFEC).

Add / Drop Mux (add/drop of lower rate signals from higher rate carriers).



Client Side (East & West)

- OTN (1, 2, 3, 4).
- SONET/SDH (OC768/STM256, OC192/STM64, OC48/STM16, OC12/STM4, OC3/STM1).

ADM Side

- OTN (OTU1, 2, 3).
- SONET/SDH (OC768/STM256, OC192/STM64, OC48/STM16, OC12/STM4, OC3/STM1).
- PDH (E1/T1, E3/T3).
- Cell/Packet (GE, FC, Pos/HDLC, ATM).

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Alliances

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