

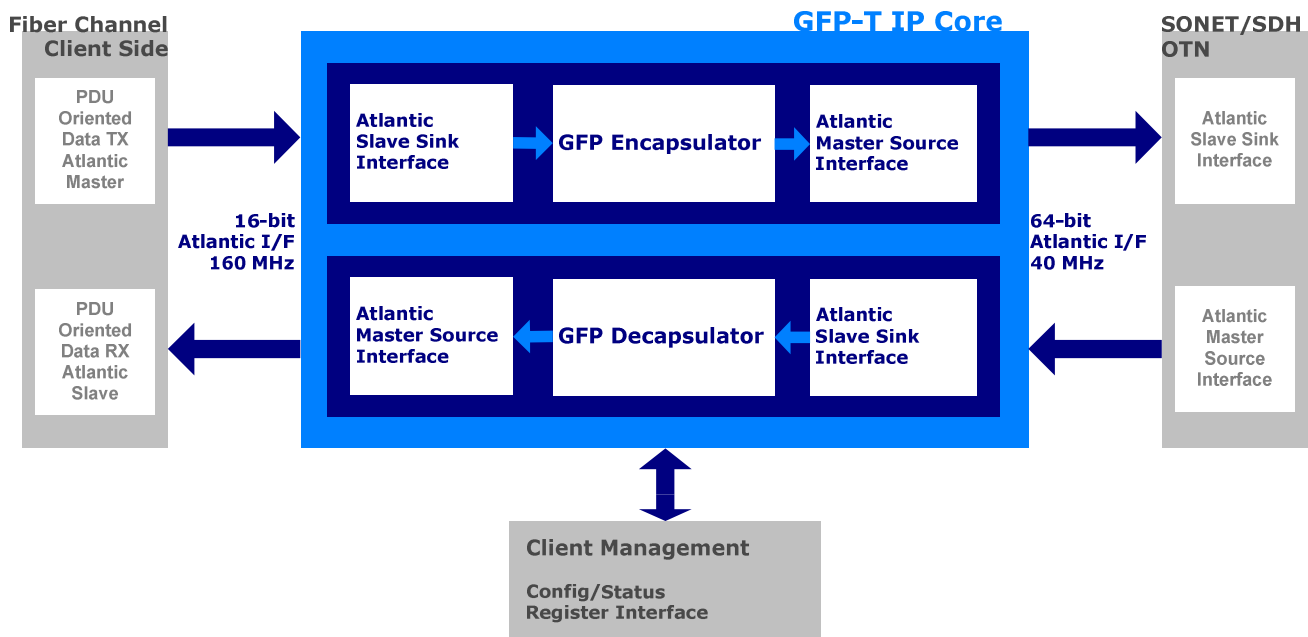
## OVERVIEW

The transparent mapped GFP-T Core receives decoded 1 or 2 Gbit 8B/10B Fibre Channel client characters and maps them into fixed-length transparent GFP superblock frames according to the Transparent GFP specifications set out in ITU-T G7041.Y.1303(12/2003). The core is optimized for Altera devices.

## FEATURES

- Compliant with ITU-T Rec. G.7041/Y.1303 (12/2003) Specification for Transparent GFP
- Supports Client Data at 1 or 2 Gbps rates
- Supports Transparent Fibre Channel with Null Extension Header & no Payload FCS
- Maps Fibre Channel onto a GFP-T Frame of 13 Superblocks:  $(13 \times (65B \times 8 + 16) + 8 \times 8) = 13 \times 536 + 64 \text{ bits/frame} = 7032 \text{ bits/frame}$  per the recommendation of Appendix IV in G.7041
- 7032 bits/frame size allows for insertion of 1 Client Management Frame (CMF) between data frames for maximum SDH path capacity in VC-4-6v (for 1gbps FC) and VC-4-12v (for 2gbps FC)
- Datapath interfaces adhere to Altera's Atlantic Specification
- Register Interface for CMF insertion/extraction, core configuration and monitoring
- CMF Payload Information Field set at 8 bytes
- cHEC error detection and single-bit error correction.
- eHEC, tHEC, & CRC SuperBlock error detection
- Automatic 65B\_PAD/10B\_ERR code insertion

## BLOCK DIAGRAM



## DEVICE UTILIZATION

TARGET DEVICE	SPEED GRADE	UTILIZATION		64-BIT DATA PERFORMANCE (MHz)
		LEs	Memory Bits	
Altera Stratix EP1S	-5	5500	22000	60
		ALMs	Memory Bits	
Altera Stratix-II EP2S	-3	2500	22000	95