Multiprotocol Muxponders

BTI 7000 Series

BTI 7000 Series Multiprotocol Muxponders (MXP) provide service aggregation for a wide variety of protocols used in today's service provider and enterprise networks onto resilient high capacity wavelengths. Flexible wavelength encapsulation strategies and innovative ring functionality converge distributed add/drop functionality with the Wavelength Division Multiplexing (WDM) layer and provides rapid protection switching.

Muxponder Functionality

Multiplexing Transponders (muxponders) act as client interfaces for the BTI 7000 Series to subtending networking and data center equipment. Muxponders aggregate multiple, lower rate client signals into a higher rate wavelength carrier. This strategy makes more efficient use of the WDM spectrum rather than having individual low speed clients being allocated independent wavelengths.

Features

Multiprotocol Support

Provides efficient wavelength transport for a comprehensive mix of data, storage, TDM, and video protocols including Gigabit Ethernet (GbE), Fibre Channel/FICON (1G, 2G), and Fibre Channel (4G), SONET (OC-N), SDH (STM-N), and SD and HD SDI video.

Flexible Line Mapping Strategies

Software-selectable G.709 Optical Transport Network (OTN) and SONET/SDH line mapping strategies enables efficient multiplexing, provisioning, and switching of packet-oriented, high-bandwidth services, as well as the opportunity to interoperate with deployed SONET/SDH and OTN-based network systems.

Simplified Provisioning and Sparing

All modules support Small Form-Factor pluggable (SFP), 10G SFP (XFP), and 10G tunable XFP optics. Configured through software, BTI MXPs can address any protocol mix and transport aggregated services over any supported ITU-T WDM wavelength within the BTI 7000 Series' Coarse WDM (CWDM) and Dense WDM (DWDM) wavelength plans.

Benefits

- Consolidate & support a dynamic service mix: per-client port flexibility
- Utilize wavelengths efficiently and maintain dedicated bandwidth per client
- Rapidly address connectivity changes with multi-site distributed add/drop capabilities
- Leverage in-band management, protection, and reach extension with G.709 OTN (@ 2.5G/10G)
- Simplify SONET/SDH network interoperability with λ encapsulation
- Implement a one module approach: client and line interfaces with integrated protection capabilities

Distributed Add/Drop Networking

Ring-based architectures leveraging SONET/SDH line mapping modes and the integrated optical switch fabric allows for the MXP's wavelength to be shared between multiple sites on a WDM ring and client signals to be cross connected between any location.

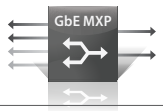
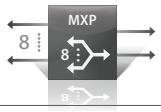
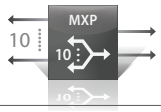
Integrated WAN Protection

1+1 facility OTN-based network protection, UPSR/SNCP-based ring network protection, or single/dual-line unprotected configurations can be implemented dependent on requirements and line mapping strategy chosen.

Extensive Performance Monitoring

Superior service and network visibility with extensive on-board optical and protocol PMs.

Portfolio Summary

		2-port GbE MXP	8-port MXP	10-port MXP
				
Client Interface Ports:		2 SFP + 2 RJ-45	8 SFP	10 SFP
Client protocols:				
Gigabit Ethernet	1 Gbps	2	6	10
Ethernet 100baseT	100 Mbps	2		
Fibre Channel 1G / FICON	1 Gbps		6	10
Fibre Channel 2G / FICON 2G	2 Gbps		6	10
Fibre Channel 4G	4 Gbps			2
OC-3 / STM-1	155 Mbps		4	4
OC-12 / STM-4	622 Mbps		4	4
OC-48 / STM-16	OC-48 / STM-16			4
SD SDI (SMPTE 259M)	270 Mbps		4	
HD SDI (SMPTE 292M)	1.485 Gbps		4	
Line Interface Ports:		2 SFP	2 SFP	2 XFP
Line rates:	2.5G	■	■	
	10G			■
Line rates:	Client(s) –> OC-48 / STM-16	■	■	
	Client(s) –> OC-48 / STM-16 –> OTU1		■	
	Client(s) –> subODU1 –> OTU1		■	
	Client(s) –> OC-192 / STM-64			■
	Client(s) –> OC-192 / STM-64 –> OTU2			■
	Client(s) –> ODU1 –> OTU2			■
Wavelengths Supported:	850nm / 1310nm / 1550nm	■	■	■
	CWDM	16 λ	16 λ	8 λ
	DWDM	40 λ	40 λ	40 λ
Line Side Protection:	Unprotected (Single Line)	■	■	■
	Unprotected (Dual Line) (2x2.5G)		■	
	UPSR / SNCP		■	■
	G.709 OTN 1+1 Facility Protection		■	■
Reach Extension:	G.975 FEC			■
In-Band Management:	G.709 OTN GCC		■	■
Transmission Testing:	Client & Line Side Loopbacks	■	■	■
Performance Monitoring:	15-minute and 24-hour intervals	■	■	■
Module Variants:		SONET (BP1A46AA) SDH (PB1A46BA)	OTN/SONET (BT7A47JA) OTN/SDH (BT7A47KA)	OTN/SONET (BT7A48AA) OTN/SDH (BT7A48BA)
Module Dimensions:		Single (1W x 1H)*	Double (2W x 1H)*	Double (2W x 1H)*
Supported Platforms:		BTI 7200 BTI 7060 BTI 7030	BTI 7200 BTI 7060 BTI 7030	BTI 7200 BTI 7060 BTI 7030

* Slot 5 in the BTI 7060 Main Shelf configuration is occupied with the System Control Processor and can not be provisioned with a client service module.
Slot 5 is available when the BTI 7060 is used as an Expansion Shelf configuration.

2011-BTI-DS0022.6

For more information please contact us at info@btisystems.com or call +1 613. 287. 1700 or +1 866. 626. 9154 (toll free in North America).