FMU 16 Channels DWDM Dual Fiber End-to-End Transport Platform

Up to 160Gbps 140KM Dual Fiber BIDI End-to-End Transport

Overview

16 channels DWDM dual fiber end-to-end transport platforms are designed primarily to address the growing needs for optical transmission link that support a broad range of applications including business Ethernet services, data center interconnect, mobile and fixed broadband backhaul, SAN and native video transport, private enterprise networks, and the migration of SONET/SDH, OTN, or WDM. Each shelf provides fabricless switching of packet, OTN, and SONET/SDH with up to 500G of packet interface capacity and support for Ethernet Bridging.
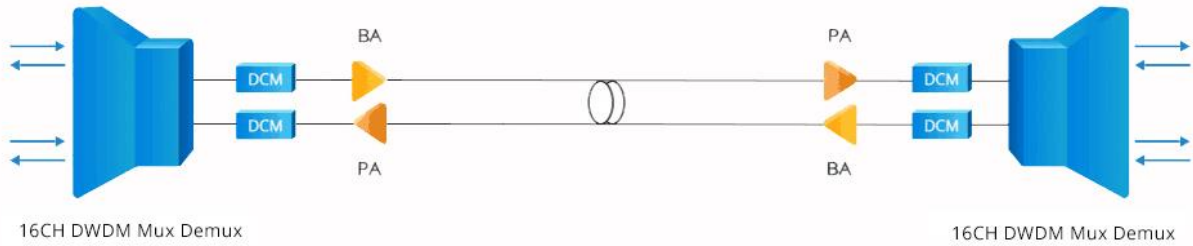
Highlights

- **Maximum Reach:** 140km@10Gbps end to end transport
- **Robustness:** Redundant hot pluggable power supply units
- **Protocol Transparency:** Support SDH, PDH, OTN, Ethernet, SAN
- **Manageability:** Highly integrated with FMT management platform
- **Flexibility Network:** Optional transmission distance and fiber link loss

TECHNICAL SPECIFICATIONS

System	Description
Topology	End-to-End DWDM networks
Networking Modes	Dual fiber bi-directional transport
Transport Network	Metro WDM/dark fiber
Approvals	CE, FCC, RoHS
Channel Count	16 DWDM channel (C21 to C36)
Supported Protocols	SDH/SONET, PDH, OTN, Ethernet, SAN
Power Supply	100V-240VAC 1.7A, 100W
Redundancy	Dual feeding, hot swappable
Operating Temp	-5 to 60° C
Storage Temp	-40 to 80° C
Heat Dissipation	1* fan module, hot swappable
Ingress Protection	Non-waterproof
Optical Specification	**Description**
Fiber Distance	20km to 140km
Fiber Link Loss	13dB to 33dB
Fiber Types	G.652D
Network Management	**Description**
Management Ports	2*10/100/1000Base-T RJ-45 2*100Base-FX SFP 1*Console port
Management Protocols	SNMP, monitor online, simple management tool
Management Channel	Optical supervisory channel (OSC) at 1510nm (standard)
DCN	OSC
Visual Indicators	LED status indicators for client ports, line interfaces, power

Flexible Deployment Options

FS transport platform greatly enhances the reach and reliability of transport performance while providing the flexibility to select the optimal modulation scheme for a specific application.

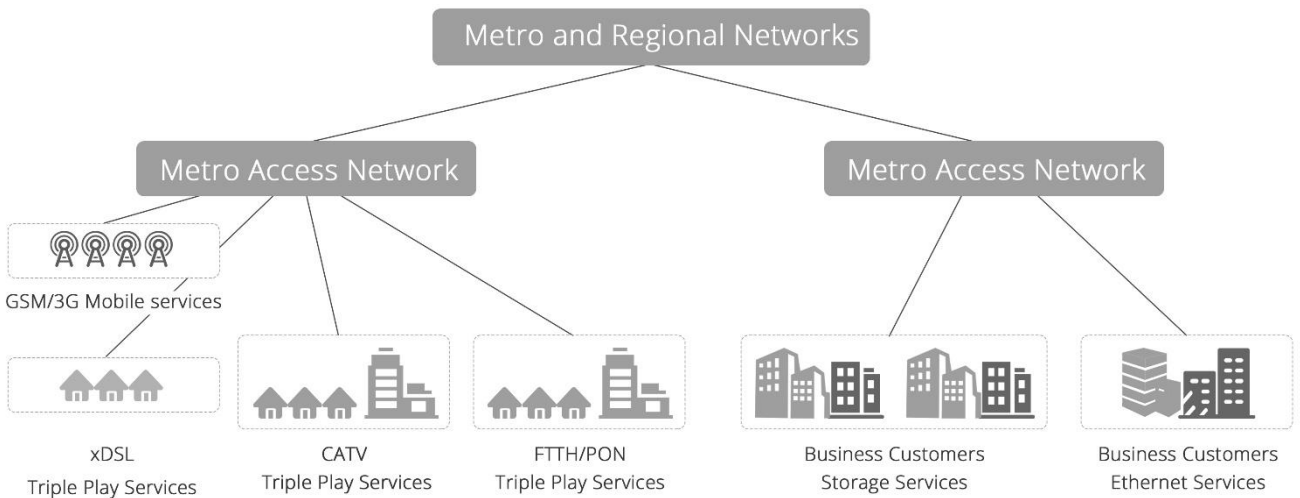| Distance	Fiber Link Loss	Packing List					
		DWDM Mux Demux (2pcs)	Booster Amplifier (2pcs)	Pre-Amplifier (2pcs)	DCM (2pcs)	Chassis (2pcs)	Attenuator (4pcs/each)
< 60km	Loss ≤13	16CH C21-C36	-	-	-	1U	3, 5, 7dB (3pcs/each)
	13< Loss ≤20.1	16CH C21-C36	-	O13/G20	-	1U	5, 10dB
	20.1< Loss ≤23.1	16CH C21-C36	O20/G20	-	-	1U	5, 7dB
60-80km	13< Loss ≤20.1	16CH C21-C36	-	O13/G20	40km	1U	5, 7dB
	20.1< Loss ≤23.1	16CH C21-C36	O20/G20	-	40km	1U	3, 5, 7dB
	23.1< Loss ≤30	16CH C21-C36	O17/G17	O13/G20	40km	1U	3, 5, 7, 10dB
	30< Loss ≤33	16CH C21-C36	O20/G20	O13/G20	40km	1U	3, 5, 7dB
80-100km	Loss ≤20.1	16CH C21-C36	-	O13/G20	60km	1U	3, 5dB
	20.1< Loss ≤30	16CH C21-C36	O17/G17	O13/G20	60km	1U	3, 5, 7, 10dB
	30< Loss ≤33	16CH C21-C36	O20/G20	O13/G20	60km	1U	3, 5, 7dB
100-120km	Loss ≤30	16CH C21-C36	O17/G17	O13/G20	40km+40km	2U	3, 5, 7, 10dB
	30< Loss ≤33	16CH C21-C36	O20/G20	O13/G20	40km+40km	2U	3, 5, 7dB
120-140km	Loss ≤30	16CH C21-C36	O17/G17	O13/G20	40km+60km	2U	3, 5, 7, 10dB
	30< Loss ≤33	16CH C21-C36	O20/G20	O13/G20	40km+60km	2U	3, 5, 7dB

Note:

1. FS OTN solution contains devices at both ends without WDM transceivers

2. Free Accessory: 1*Software CD, 1*User Manual, 1*Test Report, Screws M6 and Floating Nuts (Configuration as per capacity).

Application

FS OTN solution is designed to support for metro/regional networks, such as GSM/3G mobile services, xDSL, CATV, FTTH/PON triple play services, business customers storage services and Ethernet services.

And FS OTN solution is a highly integrated extending multiplexing platform that can be used in financial institutions, universities, service providers, enterprises, dark fiber providers.
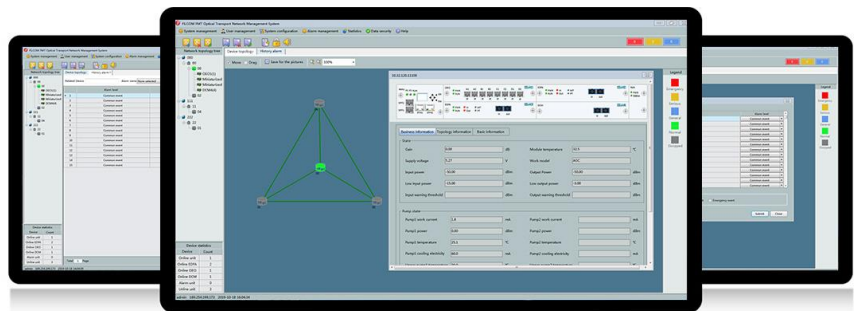

Optical Transport Network Management System

The FS.COM Network Management Unit(NMU/NMS) module is the central management hub of the FMT system. Configuration and monitoring of integrated transponder are performed by SNMP or Command Line Interface. Using the corresponding MIB table, the **transponder can be integrated into existing SNMP based management systems. In addition, an "Active Alarms List" is available** which shows an overview of all the critical states. All alarms are stored in an alarm history file.

Features of Monitor Online

1) Email notification
2) Performance monitoring
3) Alarm and event management
4) User and security administration
5) Local and remote network management

Ordering Information

ID	Category	Description
72430	DWDM Mux Demux	16 Channels C21-C36, with Monitor, Expansion and 1310nm Port, LC/UPC, Dual Fiber DWDM Mux Demux, FMU 1U Rack Mount
72284	Pre-Amplifier	20dB Gain Pre-Amplifier DWDM EDFA C-band 13dBm Output, LC/UPC, Pluggable Module for FMT Multi-Service Transport Platform
72283	Booster Amplifier	17dBm Output Booster DWDM EDFA C-band 17dB Gain, LC/UPC, Pluggable Module for FMT Multi-Service Transport Platform
78227	Booster Amplifier	20dBm Output Booster DWDM EDFA C-band 20dB Gain, LC/UPC, Pluggable Module for FMT Multi-Service Transport Platform
65781	DCM	40KM DCF-based Passive Dispersion Compensation Module, 4.2dB Low Loss, LC/UPC, Pluggable Module for FMT Multi-Service Transport Platform
65780	DCM	60KM Passive Dispersion Compensation, 4.2dB Low Loss, LC/UPC, Plug-in Card Type for FMT Multi-Service Transport System
39214	FMT Chassis	1U Managed Chassis Unloaded, Supports up to 4x EDFA/OEO/OLP Module with Accessories
73580	FMT Chassis	2U Managed Chassis Unloaded, Supports up to 8x EDFA/OEO/OLP Module with Accessories
48522	Fiber Optic Attenuator	LC/UPC Singlemode Fixed Fiber Optic Attenuator, Male-Female, 3dB
48523	Fiber Optic Attenuator	LC/UPC Singlemode Fixed Fiber Optic Attenuator, Male-Female, 5dB
48525	Fiber Optic Attenuator	LC/UPC Singlemode Fixed Fiber Optic Attenuator, Male-Female, 7dB
48526	Fiber Optic Attenuator	LC/UPC Singlemode Fixed Fiber Optic Attenuator, Male-Female, 10dB
69611	DWDM SFP+	Customized 10G DWDM SFP+ C17-C61 100GHz 80km DOM Transceiver Module

FS

United Kingdom   Russia

Germany

United States

China

Singapore

Australia

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