CTC union
www.ctcu.com

WDM Multi-Service Platform

The modular WDM Multi-Service Platform offers a full range of solutions for service provider and enterprise, including Transponder, Muxponder, EDFA, Protection and CWDM/DWDM multiplexer. All modules are hot-swappable and can be installed in a 20-slot (2U) or 8-slot (1U) rack-mountable chassis with any combination of redundant AC/DC power supplies, providing a scalable solution that is space-efficient and cost-effective.

- Deployed WDM Fiber Network in service provider, enterprise, utility and government.
- Modular architecture of high-density chassis, plug-in modules and standalone modules
- Manageable via SNMPv1/v2c, DB9 console port for local management
- Telnet, Web, Console, SNMP management via NMC card
- Select modules support SFP, SFP$^+$ QSFP, QSFP28 pluggable transceivers

▶ Rackmount Chassis Overview

2U 19", NMC card + 19 slots

1U 19", NMC card + 7 slots

- Interface cards are hot swappable
- Supports AC/DC power modules hot swappable and power redundancy
- Two alarm relay contacts for critical events warnings
- Chassis backplane consists of passive components
- Telnet, Web, Console, SNMP management via NMC Card

▶ WDM Cards

100GE Transponder

- 100GE/40G/16G/10G/4G 3R Transponder
- Multiple protocol supported
- NMC console management
- QSFP28, SFP or SFP client interface
- QSFP28, QSFP+, SFP+ or SFP line interface

10G Muxponder

- 7x 1 GE to 10G
- 10 Gbps trunk port rate
- Remotely activated local or remote loopback
- 7 independent 1 GE services over 10G trunk port
- Supports ITU-T C-band tunable DWDM SFP+ transceiver
- SFP+/SFP digital diagnostics monitoring
- In-Band management

EDFA

- Automatic Gain Control (AGC)
- Advanced performance monitoring
- Input and output power levels
- Up to 21 dBm output power (Booster)
- Up to 17 dBm output power (Preamp)
- Up to 17 dBm output power (In-Line)
- Gain flattening filters (GFF) assure flat gain over the entire amplified C-band.

Optical Protection

- Protection transition < 50 ms (OPS51)
- Protection transition < 20 ms (OPS52)
- Work with Multi-mode 850nm (OPS51M)
- Programmable Rx threshold setting for switch-over
- Optical Interface Type : LC connectors
- Working and protected lines are physically separated fiber

CWDM

- Low IL and pair loss
- Protocol transparent
- ITU-T recommendation CWDM wavelengths

DWDM

- Low IL and pair loss
- Protocol transparent
- ITU-T recommendation DWDM wavelengths

WDM Multi-Service Platform

WDM Standalone

Dispersion Compensation Module
— DCM-1000

- DWDM system dispersion compensation and Broadband low residual dispersion
- G.652 fiber C-Band 100% slope compensation
- Low insertion loss
- Low polarization model dispersion
- Conform to Telcordia GR-2854-CORE standard
- Reliability tested by Telcordia GR-1221-CORE standard

18 Ch. Dual Fiber CWDM Mux/DeMux Rack
— CMD180

NEW

- Full native mode performance
- Optical connectors
- Passive model requires no power
- Protocol transparent, no limitation

8/4 Ch. Dual Fiber CWDM Mux/Demux
— CWDM-80/40

- Full native mode performance
- Passive model requires no power
- Protocol transparent, no limitation
- Utilizes industry standard ITU CWDM wavelength
- Standard LC connectors

18/8/4 Ch. WDM Single Fiber Saver Rack
— WFS180/80/40

NEW

- Full native mode performance
- Standard LC/UPC connectors
- Passive model requires no power
- Protocol transparent, no limitation
- Utilizes industry standard ITU CWDM wavelength
- Integration with Transponder for CWDM application

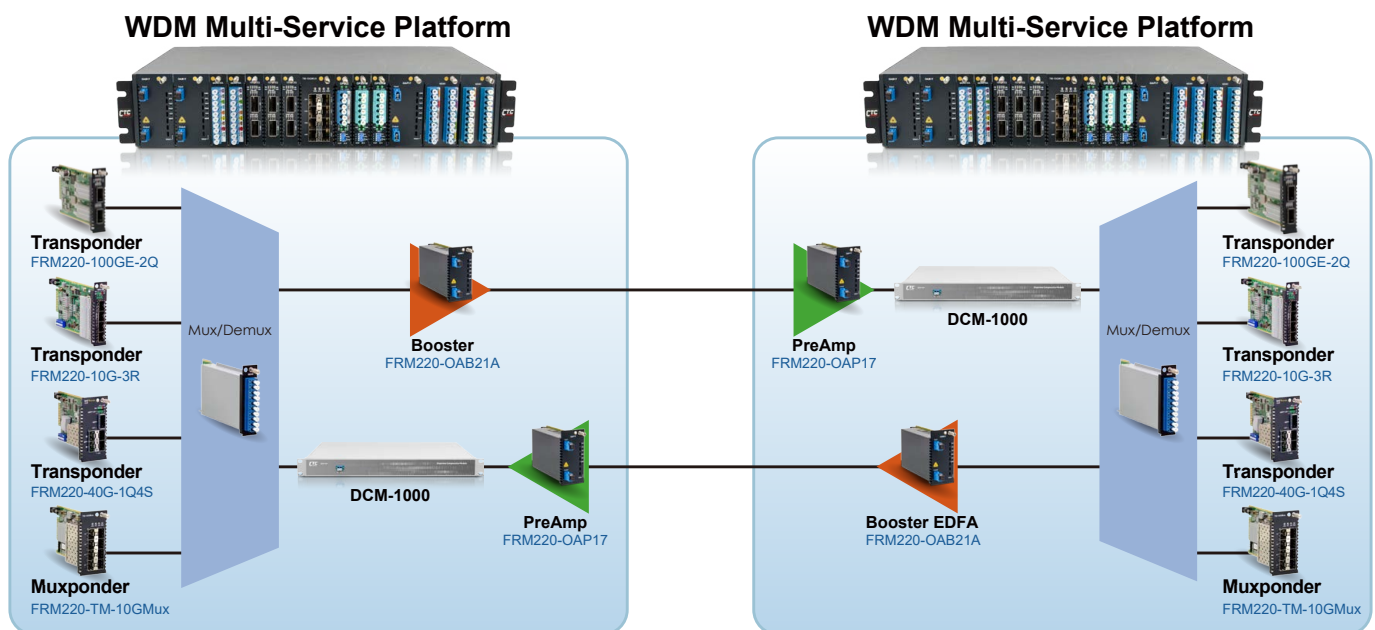### Optical Path Converter
— OPC-1500/1400/1300

NEW

- Convert any light wavelength from dual-core fiber to single-core fiber
- Passive model requires no power
- Protocol transparent, no limitation
- Connect to active and passive optical interfaces
- No wavelength and data rate limitation
- Number of WDM ports can be increased and decreased any time.

Application

Optical transport is important in providing data over long distances. CTC Union's WDM Multi-Service Platform include the optical transport building blocks of Mux/Demux, Transponders, Muxponders, EDFA DCM and optical protection switching.

WDM Multi-Service Platform

WDM Multi-Service Platform

Transponder
FRM220-100GE-2Q

Transponder
FRM220-10G-3R

Mux/Demux

Transponder
FRM220-40G-1Q4S

Muxponder
FRM220-TM-10GMux

Booster
FRM220-OAB21A

DCM-1000

PreAmp
FRM220-OAP17

PreAmp
FRM220-OAP17

DCM-1000

Booster EDFA
FRM220-OAB21A

Mux/Demux

Transponder
FRM220-100GE-2Q

Transponder
FRM220-10G-3R

Transponder
FRM220-40G-1Q4S

Muxponder
FRM220-TM-10GMux

CWDM/DWDM P to P Application