

Product Highlight

10G Muxponder

- 63G Expandable
- Tunable SFP*
- In-band Management
- Save Cost



The FRM220-TM-10GMux is a 7x 1GE to 10G Muxponder. Based on TDM technology, the Muxponder transports seven separate Gigabit Ethernet data streams into a 10 Gbps SFP* Based trunk port. This solution provides significant cost reduction and excellent fiber utilization when compared to CWDM optical multiplexing.....[CaseStudy](#)

Key Features

- 10 Gbps trunk port rate
- Network management via NMC
- 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* Digital Diagnostics monitoring

Features Highlight

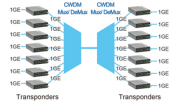
1. Expandable

Supports up to 6x Muxponders in 2U chassis



2. Comparison CWDM with Muxponder

Standard CWDM with 2x MaxDemux + 1x Transponder



Better Solution
2x Muxponder Solution



3. Supports DWDM Tunable 10G SFP*



4. In-band Management



Related Products

Transponders- 100G/40G/16G/10G/4G/1G



Features

- 3R-Transponder(Re-Amplification, Re-Shaping, Re-Timings)
- 100G Ethernet Transponder
- 40G Transponder Multiple protocol supported
CPRIx16, STM-64, OC-192, FC8, FC10, 10G Ethernet
- 16G Multiple protocol supported: ...
10G Ethernet, STM-64, OC-192, FC 1024/8/10/16G, ...
CPRI x 1,x2, x4,x5, x8, x 10, 16, OBSAI x1, x2, x4, x8
- 10G Multiple protocol supported: ...
10G Ethernet, STM-64, OC-192, FC 1024/8/10G
- 4G Multiple protocol supported: ...
OC-3,12,24,48, STM-1.4, 16, FC-1/2G
- 1G Ethernet Repeater
100M to 1G

[More](#)

Model	Management	Client	Line	Mode	protection
100G-2Q		1x QSFP28	1x QSFP28	3R	No
40G-1Q4S		4x SFP+	1x QSFP+	3R	No
16G-3R	NMC	2x SFP+	2x SFP+	3R	Yes(1+1)
16G-3R	Console	1x SFP+	2x XFP	3R	Yes(1+1)
4G-3R		1x SFP	1x SFP	3R	Yes(1+1)
4G-3S		1x SFP	2x SFP	2R	Yes
1000DS		1x SFP	2x SFP	2R	No

Optical Protection Switch



Features

- Latch feature, if power is lost the switch remains in its current state.
- Protection transition < 50 ms (OPSS1)
- Protection transition < 20 ms (OPSS2)
- Works with any combination of 1~16 wavelengths (OPSS1&2)
- Work with Multi-mode 850nm (OPSS1&2)
- Programmable fix threshold setting for switch-over
- Optical Interface Type - LC connectors
- Working and protected lines are physically separated fiber

[More](#)

Model	Management	Wavelength	Fiber Mode	Switch mode
OPSS1	NMC	1290~1620nm	Single Mode	Non-Rvert/ Manual
OPSS2	Console	1290~1620nm	Single Mode	Rvert/ Non-Rvert/ Manual
OPSS1M		850nm	Multi-mode	Non-Rvert/ Manual

CWDM MUX/ DEMUX



Features

- Full native mode performance
- Passive model requires no power
- Protocol transparent, no limitation
- Utilizes industry standard ITU CWDM wavelengths
- Standard LC connectors
- Passive device that can be installed in a powered chassis for managed applications
- Integration with Transponder in FRM220 chassis for CWDM application

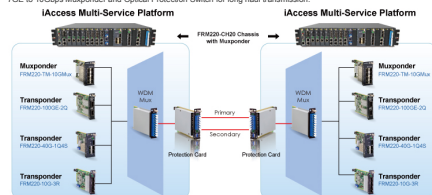
[More](#)

Model	Model Type	Client/ Line	Wavelength
CWDM40	4ch dual fiber MUX/DEMUX	LC/UPC	1551, 1571, 1591, 1611nm
CWDM80	8ch dual fiber MUX/DEMUX	LC/UPC	1471 ~ 1611nm
CWDM81-WA/WB	8ch single fiber MUX/DEMUX	LC/UPC	1271 ~ 1611nm
CWDM41-WA/WB	4ch single fiber MUX/DEMUX	LC/UPC	1471 ~ 1611nm

Application

Expand Fiber Capacity with WDM Multiplexers

The following diagram illustrates how the modular FRM220 Multi-Service Platform enables a WDM point-to-point access network incorporating different services multiplexed over single pair of fiber link with 100G/40G/10G 3R Transponder, 7GE to 10Gbps Muxponder and Optical Protection Switch for long haul transmission.



Hot Products

<p>FRM220-TM-10GMux 7x GE to 10G Muxponder</p> <p>x more</p>	<p>FRM220-100GE-2Q 100G QSFP28 to QSFP28 Transponder</p> <p>x more</p>	<p>FRM220-40G-1Q4S 40G QSFP+ to 4x 10G SFP+ Transponder</p> <p>x more</p>	<p>FRM220-OPSS1M 1:1 Multi-mode Optical Protection Switch</p> <p>x more</p>
<p>MSW-4423X L2+ 10G Carrier Ethernet</p> <p>x more</p>	<p>MSW-4424CS 10G Carrier Switch with SyncE</p> <p>x more</p>	<p>MSW-4224S 10G EDO with SyncE</p> <p>x more</p>	<p>CWDM-180 18ch CWDM Mux/Demux</p> <p>x more</p>

Promotion Materials

<p>Product EDM</p> <ul style="list-style-type: none"> • TDM Series- E1 Access Unit (New) • Layer 2 Ethernet Switch • Ethernet Aggregation Platform - FRM220A • Multi-Service Platform - FRM220 	<p>Ethernet Switch Comparison Table</p> <ul style="list-style-type: none"> • Layer 2 Ethernet Switch • Carrier Ethernet Switch • NID & EDO
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