CWDM (FRM220 OADM)

1 Channel CWDM Optical Add/Drop Multiplexer

The FRM220 CWDM Optical Add/Drop Multiplexer is modular design cards that support ITU-T G.694.2 wavelengths between 1270nm to 1610nm in 20nm increments. The FRM220-OADM Optical Add/Drop Multiplexer takes a single wavelength from a trunk, pulls the signal out, and allows a new signal at the same wavelength to be inserted into the trunk at roughly the same spot. All the other wavelengths Pass Through the Add/Drop Multiplexer with only a small loss of power (usually < 2.5dB including connectors and adapters). An Optical Add/Drop Multiplexer (OADM) is available allowing a single wavelength to be dropped or added at specific sites in linear Add/Drop topology. FRM220 OADM modules are passive devices that require no external power. They can also be installed in an FRM220 powered chassis with a NMC management module[1] and can be managed using SmartView EMS network management software, Telnet or a serial console port. The FRM220 OADM modules can be installed in any FRM220 chassis equipped with other FRM220 media converters and transponders to provide a multi-service platform capable of delivering Ethernet, TDM, Voice and other services across a CWDM fiber common link.
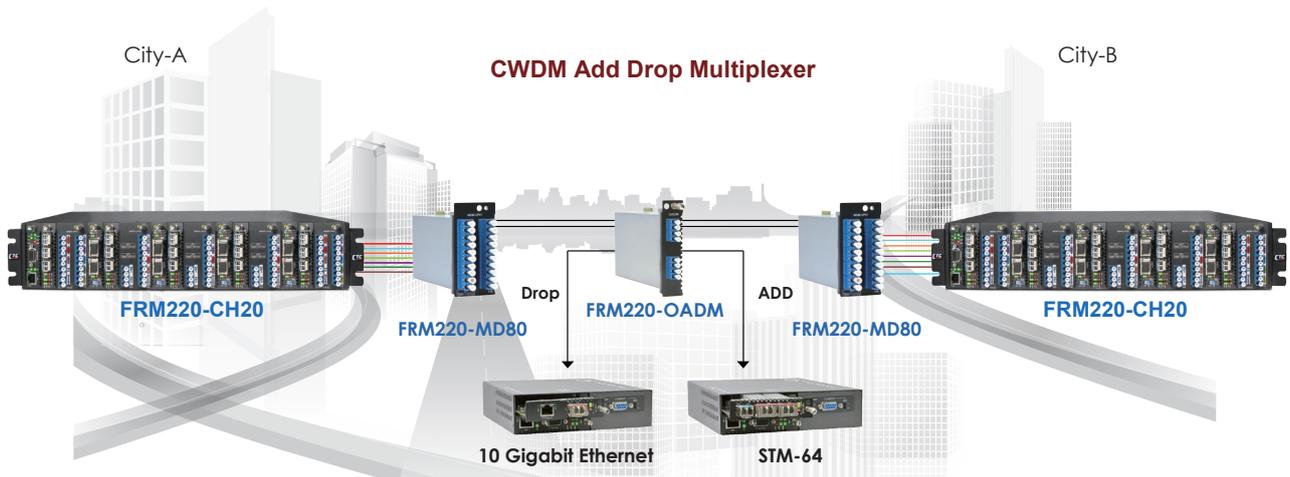
Features

- Single Add/Drop Channel
- Operating channel : 1311,1471,1491,1511,1531,1551,1571,1591,1611nm
- Passive optical module, no power required
- Protocol transparent, no limitation
- Utilizes Industry standard ITU CWDM wavelengths

- Optical connectors : LC

Specifications

Number of channels	CWDM: 1 add/drop channel, 2 add/drop channels
Operating Channel CWDM add & drop channel	Any channels out of 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm (to be defined via order information)
Channel width: CWDM channels	>=13nm (around center wavelength)
Insertion Loss	IN-OUT >= 2.5 dB
	Add to Drop < 2.0 dB
Isolation	CWDM adjacent channel Isolation >= 30dB CWDM non-adjacent ch's at CWDM drop port >= 35dB
Optical Return Loss	>= 50dB
PDL	>= 0.1dB
Environment	Temperature : 0 ~ 50°C (Operating), -20 ~ 70°C (Storage)
Fiber Type	9 / 125 / 250um

Dimensions	162 x 220 x 25mm (W x D x H)
Weight	0.9kg
Compliance	FCC part 15 class A, CE Mark

Application

City-A

CWDM Add Drop Multiplexer

City-B

FRM220-CH20

FRM220-MD80

Drop **FRM220-OADM** ADD

FRM220-MD80

FRM220-CH20

10 Gigabit Ethernet

STM-64

Ordering Information

Model Type	Model Name	Channel Port ITU Center Wavelength(nm)	Chassis Slots Required	Insertion Loss	East	West	Drop	Add
CWDM 1-Channel Add/Drop MUX	FRM220-OADM1001	Add/Drop 1471 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1002	Add/Drop 1491 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1003	Add/Drop 1511 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1004	Add/Drop 1531 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1005	Add/Drop 1551 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1006	Add/Drop 1571 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1007	Add/Drop 1591 with E/W lines	1	<1.1dB		LC/UPC		
	FRM220-OADM1008	Add/Drop 1611 with E/W lines	1	<1.1dB		LC/UPC		

Naming rule

FRM220-OADM- 1 0 0 1 A

- Single Fiber
  - A : A type
  - B : B type
- Model Type

Channel
- 1 : 1ch
- 2 : 2ch
- 3 : 3ch

Port Type
- 0 : X
- 1 : Monitor port
- 2 : Upgrade port
- 3 : Mointor + Upgrade port
- 4 : Mointor + 2 Upgrade port
- 5 : 2 Upgrade port
- 6 : wide 1310±50nm

Example :

FRM220-OADM1001 OADM, 1ch, model type 01