

# Appendix

## - FRM220 Standalone Selection Table

Model Name	Slot	NMC Card Slot	Console Port	Adapter Type	Power Built-In Type			Cooling Fan	Fan-less	Power Module
				100~240VAC to 12VDC	100~240VAC	18~72VDC	Dual Power 100~240VAC & 18~72VDC			
CH01	1			✓					✓	12W
CH01-AC	1				✓				✓	12W
CH01-DC	1					✓			✓	12W
CH01-AD	1						✓		✓	12W/12W
CH01M-AC	1		✓		✓				✓	12W
CH01M-DC	1		✓			✓			✓	12W
CH01M-AD	1		✓				✓		✓	12W/12W
CH02	2			✓					✓	30W
CH02M-AC	2		✓		✓			✓		30W
CH02M-DC	2		✓			✓		✓		30W
CH02M-AD	2		✓				✓	✓		30W/30W
CH02M-2-AC	2		✓		✓				✓	12W
CH02M-2-DC	2		✓			✓			✓	12W
CH02M-2-AD	2		✓				✓		✓	12W/12W
CH02/NMC-AC	2	✓			✓			✓		30W
CH02/NMC-DC	2	✓				✓		✓		30W
CH02/NMC-AD	2	✓					✓	✓		30W/30W
CH04A-AC	4	✓			✓			✓		65W
CH04A-DC	4	✓				✓		✓		50W
CH04A-AD	4	✓					✓	✓		65W/50W

### How to order

- DIP Switch Configuration Order : CH01 and CH02
- Local Console Management Order : CH01M, CH02M and CH02M-2. "M" means the chassis with Console Management.
- Remote Web / SNMP Management Order : CH02 / NMC, CH04A
- Power Type : AD = AC + DC Power

# Appendix

## - Slide-in Card vs Standalone Chassis Compatible Table

Card Name	Product Name	Page	FRM220-CH20	CH08	CH04A	CH02/NMC
FRM220-NMC	Network Management Controller	2-?	✓	✓	✓	✓
FRM220-40G-1Q4S	40G QSFP to 4x10G SFP+ Transponder	2-?	✓	✓	✓	✓
FRM220-16G-3R	16G Multi Rate Transponder (3R)	2-?	✓	✓	✓	✓
FRM220-10G-FEC	SFP+ STM-64/10G Ethernet FEC Transponder	2-?	✓	✓	✓	✓
FRM220-10G-SXX	10G 3R Transponder SFP+ to XFP Fiber Protection	2-?	✓	✓	✓	✓
FRM220-10G-SS	10G 3R Transponder SFP+ to SFP+	2-?	✓	✓	✓	✓
FRM220-4G-3S	4G Multi-Rate 2R Transponder SFP to SFP Fiber Protection	2-?	✓	✓	✓	✓
FRM220-2.7G-3S	2.7G Multi-Rate 3R Transponder SFP to SFP Fiber Protection	2-?	✓	✓	✓	✓
FRM220-OAB15	Single Channel EDFA Booster NIC	2-?	✓	✓	✓	✓
FRM220-DWDM	DWDM Mux/DeMux	2-?	✓	✓	✓	
FRM220-CWDM	CWDM Mux/DeMux	2-?	✓	✓	✓	
FRM220-OP52	Fiber Optical Protection Switch	2-?	✓	✓	✓	✓
FRM220-OP51	Fiber Optical Protection Switch	2-?	✓	✓	✓	✓
FRM220-10GC-TS	10G Ethernet Converter 10G Base-T to SFP+	2-?	✓	✓	✓	✓
FRM220-MSW404	4x GbE, RJ45 + 4x Dual Rate L2+ OAM Managed Switch	2-?				
FRM220-MSW202	2x GbE, RJ45 + 2x Dual Rate L2+ OAM Managed Switch	2-?	✓	✓	✓	
FRM220-MX210	2-Port Gigabit Ethernet Multiplexer	2-?	✓	✓	✓	✓
FRM220A-1002ES	2x 10/100/1000Base-T + 2x 100/1000Base-X SFP GbE Switch	2-?	✓	✓	✓	✓
FRM220A-1000EAS/X	2-Port 10/100/1000Base-T + 2-Port 1000Base-X OAM/IP Managed Switch	2-?	✓	✓	✓	✓
FRM220-10/100	10/100Base-TX to 100Base-FX Media Converter	2-?	✓	✓	✓	
FRM220-1000DS	1000Base-X to 1000Base-X SFP media converter	2-?	✓	✓	✓	✓
FRM220-1000TS	1000Base-T to 1000Base-X SFP Media Converter	2-?	✓	✓	✓	✓
FRM220-1000M	10/100/1000Base-T to 1000Base-X Web Smart OAM/IP Managed Converter	2-?	✓	✓	✓	✓
FRM220-1000MS	10/100/1000Base-T to 100/1000Base-X SFP Web Smart OAM/IP Managed Converter	2-?	✓	✓	✓	✓
FRM220-1000EAS/X-1	OAM/IP-Based Managed Gigabit Ethernet Media Converter	2-?	✓	✓	✓	✓
FRM220-100EAS/X-1	10/100Base-TX to 100Base-FX Media Converter	2-?	✓	✓	✓	
FRM220-10/100i	10/100Base-TX to 100Base-FX In-band Managed Converter	2-?	✓	✓	✓	✓
FRM220-10/100iS-2	Dual Channels 10/100Base-TX to 100Base-FX In-Band Managed Converter	2-?	✓	✓	✓	✓
FRM220-FXO-4&FXS-4	4x POTS over Fiber	2-?	✓	✓	✓	✓
FRM220-FXO/FXS	POTS over Fiber	2-?	✓	✓	✓	✓
FRM220A-iMux16	Ethernet to 16 E1 Mux NIC	2-?	✓	✓	✓	✓
FRM220A-iMux8	Ethernet to 8 E1 Mux NIC	2-?	✓	✓	✓	✓
FRM220A-iMux4	Ethernet to 4 E1 Mux NIC	2-?	✓	✓	✓	✓
FRM220-GFOM08	8-Port E1/T1+10/100/1000M Ethernet Fiber Multiplexer	2-?	✓	✓	✓	
FRM220-GFOM04	4-Port E1/T1+10/100/1000M Ethernet Fiber Multiplexer	2-?	✓	✓	✓	✓
FRM220-FOM04	4-Port E1/T1+100M Ethernet Fiber Multiplexer	2-?	✓	✓	✓	✓
FRM220-FOM01	E1/T1+100M Ethernet Fiber Multiplexer	2-?	✓	✓	✓	✓
FRM220-DS3/E3	DS3/E3 over Fiber	2-?	✓	✓	✓	✓
FRM220-Serial	RS485/232 Media Converter	2-?	✓	✓	✓	✓
FRM220-FTEC	E1/T1 Cross Rate Converter	2-?	✓	✓	✓	✓
FRM220-E1/Data	E1 to Data	2-?	✓	✓	✓	✓
FRM220A-Eoe1	Ethernet Bridge over E1	2-?	✓	✓	✓	✓
FRM220-E1/T1	E1/T1 Fiber Modem	2-?	✓	✓	✓	✓
FRM220-Data	V.35/X.21/RS530/449/232 Fiber Modem	2-?	✓	✓	✓	✓
FRM220-ET100	Ethernet over E1 Fiber Modem	2-?	✓	✓	✓	✓

## - Power Type vs Standalone Chassis Compatible Table

Power Type (option)	AC: AC Power	DC: DC Power	AC, DC	AC, DC	AC, DC
	AD: AC+DC Power	AA: AC+AC Power	AD, AA, DD	AD, AA, DD	AD, AA, DD
		DD: DC+DC Power			

# Appendix

## - Slide-in Card vs Standalone Chassis Compatible Table

Card Name	Product Name	Page	CH02M	CH02M-2	CH02	CH01M	CH01
FRM220-NMC	Network Management Controller	2-?					
FRM220-40G-1Q4S	Gigabit Ethernet Aggregate Switch Card	2-?	✓				
FRM220-16G-3R	16G Multi Rate Transponder (3R)	2-?	✓			✓	✓
FRM220-10GFEC	10G 3R Transponder SFP+ to XFP Fiber Protection	2-?	✓				
FRM220-10G-SXX	10G 3R Transponder SFP+ to SFP+	2-?	✓				
FRM220-10G-SS	4G Multi-Rate 2R Transponder SFP to SFP Fiber Protection	2-?	✓				
FRM220-4G-3S	2.7G Multi-Rate 3R Transponder SFP to SFP Fiber Protection	2-?	✓			✓	
FRM220-2.7G-3S	1000Base-X to 1000Base-X SFP media converter	2-?	✓				
FRM220-OAB15	10G Ethernet Converter 10G Base-T to SFP+	2-?	✓				
FRM220-DWDM	10G Ethernet Converter 10G Base-T to XFP	2-?			✓		✓
FRM220-CWDM	4 and 8-ch DWDM Mux/DeMux	2-?			✓		✓
FRM220-OP52	4 and 8-ch CWDM Mux/DeMux	2-?				✓	✓
FRM220-OP51	Optical Add-Drop Multiplexer	2-?				✓	✓
FRM220-10GC-TS	1+1 Fiber Optical Protection Switch	2-?	✓				
FRM220-MSW404	2x 10/100/1000Base-T + 2x 100/1000Base-X SFP GbE Switch	2-?	✓				
FRM220-MSW202	3x10/100Base-TX + 1x100Base-FX SFP Switch	2-?	✓			✓	✓
FRM220-MX210	2-Port 10/100/1000Base-T + 2-Port 1000Base-X OAM/IP Managed Switch	2-?				✓	✓
FRM220A-1002ES	2x GbE, RJ45 + 2x Dual Rate L2+ OAM Managed Switch	2-?				✓	✓
FRM220A-1000EAS/X	4x GbE, RJ45 + 4x Dual Rate L2+ OAM Managed Switch	2-?				✓	✓
FRM220-10/100	2-Port Gigabit Ethernet Muxponder	2-?					✓
FRM220-1000DS	10/100Base-TX to 100Base-FX Media Converter	2-?	✓				✓
FRM220-1000TS	1000Base-T to 1000Base-X SFP Media Converter	2-?					✓
FRM220-1000M	10/100/1000Base-T to 1000Base-X Web Smart OAM/IP Managed Converter	2-?				✓	✓
FRM220-1000MS	10/100/1000Base-T to 100/1000Base-X SFP Web Smart OAM/IP Managed Converter	2-?				✓	✓
FRM220-1000EAS/X-1	10/100/1000Base-T to 100/1000Base-X SFP OAM/IP GbE Media Converter	2-?				✓	✓
FRM220-100EAS/X-1	10/100Base-TX to 100Base-FX Media Converter	2-?				✓	✓
FRM220-10/100i	10/100Base-TX to 100Base-FX In-band Managed Converter	2-?				✓	✓
FRM220-10/100iS-2	10/100Base-TX to 100Base-FX SFP In-band Managed Converter	2-?				✓	✓
FRM220-FXO-4&FXS-4	E1/T1 Fiber Modem	2-?				✓	✓
FRM220-FXO/FXS	V.35/X.21/RS530/449/232 Fiber Modem	2-?				✓	✓
FRM220A-iMux16	Ethernet over E1 Fiber Modem	2-?	✓	✓			
FRM220A-iMux8	DS3/E3 over Fiber	2-?				✓	
FRM220A-iMux4	RS485/232 Media Converter	2-?				✓	
FRM220-GFOM08	4xPOTS over Fiber	2-?	✓	✓			
FRM220-GFOM04	POTS over Fiber	2-?	✓	✓			
FRM220-FOM04	Ethernet Bridge over E1	2-?	✓	✓	✓		
FRM220-FOM01	Ethernet Bridge over E1 (GFP)	2-?				✓	
FRM220-DS3/E3	Ethernet to 16 E1 Mux NIC	2-?				✓	✓
FRM220-Serial	Ethernet to 8 E1 Mux NIC	2-?				✓	✓
FRM220-FTEC	Ethernet to 4 E1 Mux NIC	2-?				✓	
FRM220-E1/Data	8-Port E1/T1+10/100/1000M Ethernet Fiber Multiplexer	2-?				✓	
FRM220A-Eoe1	4-Port E1/T1+10/100/1000M Ethernet Fiber Multiplexer	2-?				✓	
FRM220-E1/T1	4-Port E1/T1+100M Ethernet Fiber Multiplexer	2-?				✓	✓
FRM220-Data	E1/T1+100M Ethernet Fiber Multiplexer	2-?				✓	✓
FRM220-ET100	E1/T1 Cross Rate Converter	2-?				✓	✓

## - Power Type vs Standalone Chassis Compatible Table

Power Type (option)	DC12: AC Adapter AD: AC+DC Power	AC: AC Power AA: AC+AC Power	DC: DC Power DD: DC+DC Power	AC, DC, AD	AC, DC, AD	DC12	DC12, AC, DC, AD, AA, DD	AC, DC, AD
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