

# Standalone Chassis for FRM220/FRM220A Series

All FRM220/FRM220A series rack mount cards are hot-swappable and can be installed in a 20 slots (2U), or 8 slots (1U) rack-mountable chassis with any combination of redundant hot swappable AC, 24VDC or 48VDC power supplies, providing a scalable solution that is space-efficient and cost-effective. The rack mount cards can also be mounted in 4 slots, 2 slots, or 1 slot standalone housing with fixed AC/DC powered chassis.

The rack mount cards of FRM220/FRM220A series provide telecommunication solutions for most applications. CTC union offers a universal and cost-efficient transmission series for a variety of fiber optic technologies (Multimode, Single mode, WDM, CWDM) starting from converters and switches, to modems and extending to intelligent voice/data multiplexer systems. The products are designed as rack mount cards in combination with various chassis types. The concept is to ensure an extremely variable mixture of products at low storage costs for spares.

## Power Build-in Type

FRM220-CH01-AC(DC or AD)



FRM220-CH01M



FRM220-CH02M & CH02M-2



- Cooling Fan (CH02M) : 30 Watt
- Fanless (CH02M-2) : 12 Watt

FRM220-CH02/NMC



## New

FRM220-CH02M-HP



- Cooling Fan : 30 Watt

## New

FRM220-CH02/NMC-HP



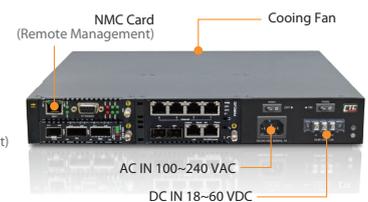
- Cooling Fan : 30 Watt

## New

FRM220-CH02M/SMT



FRM220-CH04A



## Adapter Type

FRM220-CH01



FRM220-CH02



## Features

- Fanless (CH01, CH01M, CH02, CH02M-2)
- Cooling Fan (CH02M, CH02/NMC, CH04A, CH20M-HP, CH02/NMC-HP, CH02M/SMT)
- Supports DB9 console port for local management (CH01M, CH02M, CH02M-2, CH02M-HP, CH02M/SMT)
- Telnet, Web, Console, SNMP management via NMC Card (CH02/NMC, CH04A, CH02/NMC-HP, CH02M/SMT)

## Specifications

Power Input (Option)	External Adapter	Input Voltage 100~240VAC 50/60Hz Output Voltage 12VDC 1A
	Internal Power	CH01/02 Series: AC: 100~240VAC DC: 18~72VDC CH04A: AC: 100~240VAC DC: 18~60VDC
Weight	0.5~0.8kg (CH01) , 0.9kg (CH01M) 0.8kg (CH02), 1.3kg (CH02M), 1.2kg (CH02M-2), 1kg (CH02/NMC), 1.5kg (CH04AC/DC), 1.9kg (CH04AD) 1.38kg (CH02M-HP), 1.1kg (CH02/NMC-HP) 1.46kg (CH02M/SMT)	

## Power Type:

- External Power: DC12
- Internal Power: AC, DC, AD, AA or DD redundant power (option)

Dimensions (D x W x H)	External Adapter	139x 23.2x 88mm (CH01) 139x 44.5x 88mm (CH02)
	Internal Power	180x 30x 135mm (CH01) 185x 30x 135mm (CH01M) 222.7x 45.5x 167.4mm (CH02M, CH02M-2, CH02/NMC) 170x 310x 44.7mm (CH04A) 222.7 x 49.5 x 177.4mm (CH02M-HP, CH02/NMC-HP) 220 x 205 x 44.7 mm (CH02M/SMT)

## FRM220 Slide-In Card Chassis Order Information

Model Name	Description
CH01	1 Slot Chassis with 100 ~240VAC to 12VDC Adapter, Fanless
CH01-AC, DC, AD	1 Slot Chassis with AC: 100 ~240VAC DC: 18 ~72VDC or Dual Power (AC+DC), Fanless
CH01M-AC, DC, AD	1 Slot Chassis with Console port and AC: 100 ~240VAC, DC: 18 ~72VDC or Dual Power (AC+DC), Fanless
CH02	2 Slots Chassis with 100 ~240VAC to 12VDC Adapter, Fanless
CH02M-AC, DC, AD	2 Slots Chassis with Console port and AC: 30W 100 ~240VAC, DC:30W 18 ~72VDC or Dual Power (AC+DC), with Cooling Fan
CH02M-2-AC, DC, AD	2 Slots Chassis with Console port and AC:12W 100 ~240VAC, DC:12W 18 ~72VDC or Dual Power (AC+DC), Fanless
CH02/NMC (S)-AC, DC, AD	2 Slots Chassis with NMC card and AC: 30W 100 ~240VAC, DC: 30W 18 ~72VDC or Dual Power (AC+DC), with Cooling Fan
CH02M-HP -AC, DC, AD	2 Slots Chassis with Console port and AC :30W 100~240VAC, DC:30W 18~72VDC or Dual Power (AC+DC), Cooling FAN with Superior Air Flow Cooling. High power consumption cards like "40G-1Q4S, 10G-SXX, 10G-SS, 2.7G-3S, MSW404S, MSW202" must use CH02M-HP chassis for console management
CH02M/SMT-AC, DC,AD	2 Slots Chassis with Console port, optional NMC card and AC: 30W 100~240VAC, DC: 30W 18~72VDC or Dual power (AC+DC), Cooling Fan, with Power and Cooling Fan Failure Alarm Detection function
CH02/NMC-HP -AC, DC, AD	2 Slots NMC Chassis AC :30W 100~240VAC, DC:30W 18~72VDC or Dual Power (AC+DC), Cooling FAN with Superior Air Flow Cooling High power consumption cards like "10G-SXX, 10G-SS, 2.7G-3S, MSW202" must use CH02/NMC-HP chassis for standalone SNMP management
CH04A-AC	4-Slot chassis with built-in AC power 65W
CH04A-DC	4-Slot chassis with built-in DC power 50W
CH04A-AD	4-Slot chassis with built-in AC+DC power (65W+50W)

### Optional Accessories

Wall Mount Kits	Type
CH01-WMK01	Single Unit Wall Mounting Kit
CH01-DRK02	Single Unit Din-Rail

**Note:** CH01-DRK02 only for Power Build-in Type



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Example: FRM220 - CH01-AD

Rack Mounting Ear	Description
CH01-RME01	Single unit Rack Mounting EAR for CH01 power built in and CH01M chassis
CH02-RME01	Single unit Rack Mounting EAR for CH02M and CH02/NMC chassis
CH02-RME02	Single unit Rack Mounting EAR for CH02M-HP and CH02/NMC-HP chassis
CH02-RME03	Single unit Rack Mounting EAR for CH02M/SMT chassis

**Note:** For CH01/AC/DC/AD, CH01M and CH02M, CH02/NMC chassis

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Example: FRM220 - CH02-RME01