

iAccess™ Multi-Service Platform - FRM220B



The FRM220B is a 3U high 19" Rack, 20 slot modular media converter rack. It provides an economic solution in high density media modules for applications such as telecom operator, enterprise, long haul transmission and factory automation. All critical components, Power, management module and interface cards are hot swappable, allowing online field replacement. The hot-swappable power modules can be chosen from AC90-264V, DC18-36. or DC 36-75V. The chassis also has a pair of alarm relays and is able to stack up to 10 chassis as one management IP address.

Features

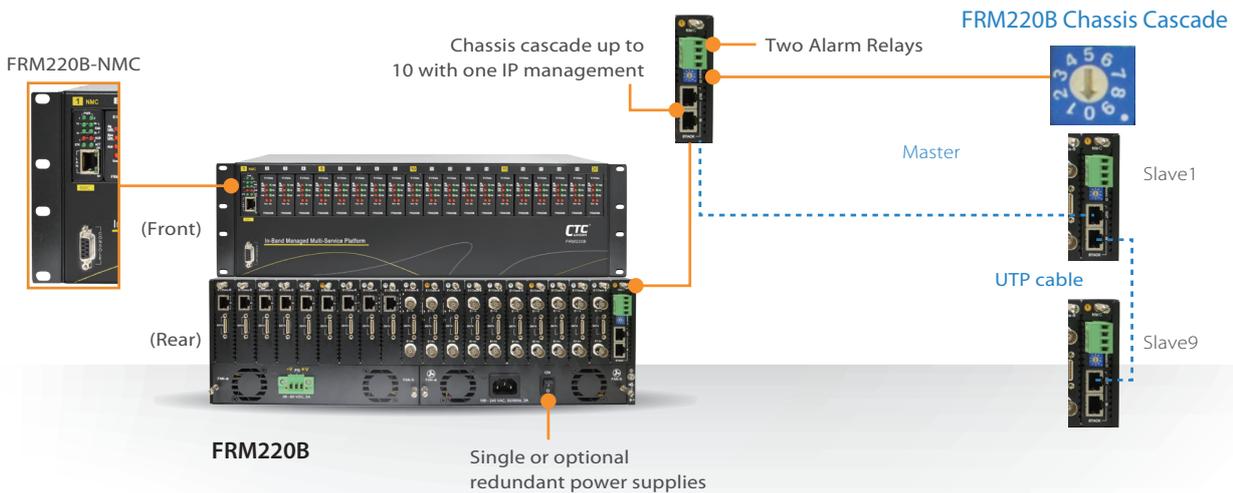
- ◆ 3U 19" 20-slot Chassis with AC/DC power redundancy
- ◆ Chassis backplane consists of passive components
- ◆ All modules and cards support hot-swapping
- ◆ Two alarm relays
- ◆ Chassis cascade up to 10 with one IP management
- ◆ Interface Card: E1/Data(V.35, X.21, RS530, RS449, RS232)

Specifications

Connectors	Console RS232(DB9) LAN 10/100 Base TX RJ45
Physical Specifications	Dimensions 437.6 x 166.5 x 130.8mm(W x Dx H) Weight 5.2kg w/o power supply
Power	AC 90 ~ 264VAC
Characteristics	DC24 18 ~ 36VDC DC48 36 ~ 75VDC

Temperature	Operating 0 ~ 60°C Storage -10 ~ 70°C
humidity	5% ~ 90% non-condensing
Predicted MTBF	65,000 hrs
Certification	FCC class A, VCCI class A, CE, RoHS

Chassis Overview



Main Features

Power Redundancy

Both chassis power supplies are hot swappable and modular. Installing two into a chassis provides redundancy should a single power supply fail. A fully loaded chassis can run continuously with only one power module fitted into the chassis.

Cooling Fan

To further increase system reliability, the FRM220B chassis is fitted with two fixed fans on each power unit. The fans rotate speed status can be shown through NMC management.

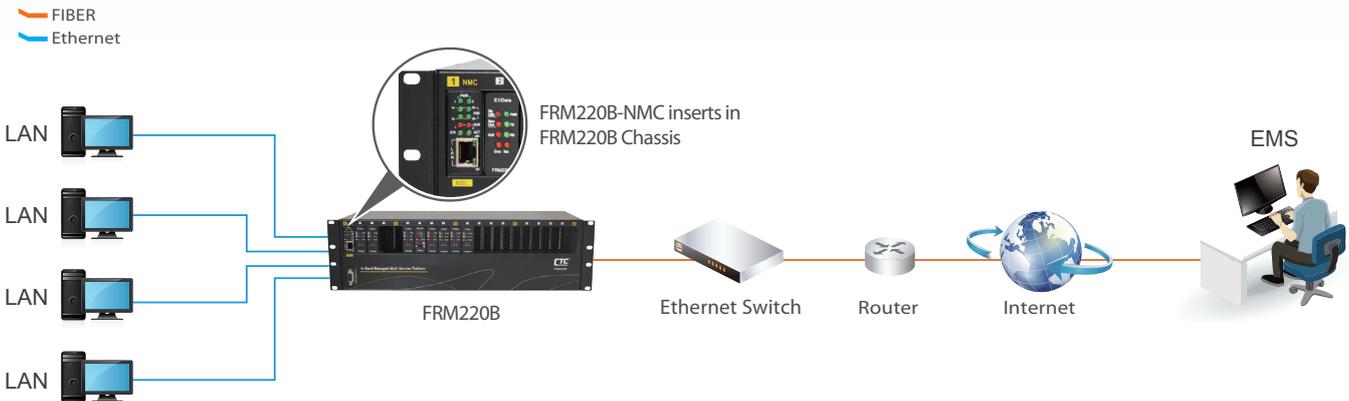
Chassis Cascade

The FRM220B Chassis features cascadable management which allows managing a stack (up to 10 chassis) from a single IP address. Chassis are interconnected with standard UTP cables that carry control signals. Each chassis has its own ID, starting with the master chassis ID0 and cascading up to ID9

Network Management

The FRM220B chassis provides an NMC (Network Management Controller) card which must be installed into the first slot of chassis. The NMC card allows a network administrator the ability to configure and monitor the status of the blades. Management can be achieved locally over RS232, or over the network by Telnet, Web or SNMP. If the blades support Ethernet in the First Mile (IEEE 802.3ah), then the management module can also configure and monitor the status of a remote blade.

FRM220B Application Diagram



Ordering Information

Chassis

Model Name	Description
FRM220B-CH	3U 19", 20 slots rack mount Chassis 19 slots for line cards, 1 slot for NMC card All modules and cards support hot-swap function AC/DC power redundancy

Power

Model Name	Description
FRM220B-AC	FRM220B-CH08 Chassis power module 90 ~ 264 VAC, IEC connector
FRM220B-DC24	FRM220B-CH08 Chassis power module 18 ~ 36 VDC, 3 pin terminal block
FRM220B-DC48	FRM220B-CH08 Chassis power module 36 ~ 75 VDC, 3 pin terminal block

Management NMC

Model Name	Description
FRM220B-NMC	Network Management Control Card support Web, telnet, console, SNMP functions with RS232 Console port and 10/100Base-T Ethernet port



NMC Card

Interface Card

Model Name	Description
FRM220B- E1/V35-R	V35 to framed E1 RJ-45 with V35 cable
FRM220B- E1/V35-B	V35 to framed E1 BNC with V35 cable
FRM220B- E1/X21-R	X21 to framed E1 RJ-45 with X21 cable
FRM220B- E1/X21-B	X21 to framed E1 BNC with X21 cable
FRM220B- E1/RS530-R	RS530 to framed E1 RJ-45 with RS530 cable
FRM220B- E1/RS530-B	RS530 to framed E1 BNC with RS530 cable
FRM220B- E1/RS449-R	RS449 to framed E1 RJ-45 with RS449 cable
FRM220B- E1/RS449-B	RS449 to framed E1 BNC with RS449 cable
FRM220B- E1/RS232-R	RS232 to framed E1 RJ-45 with RS232 cable
FRM220B- E1/RS232-B	RS232 to framed E1 BNC with RS232 cable



E1/Data-B Card



E1/Data-R Card

FRM220B - Chassis
Example: FRM220B - CH

FRM220B - / -
Example: FRM220B - E1/V35-R