



# FRM220-DS3/E3

## DS3/E3 over Fiber

The FRM220-DS3/E3 is a fiber modem that works in pairs to transparently extend DS3, E3 or STS-1 transmissions over optical fiber. By utilizing pluggable SFP transceivers (155Mbps), these converters may be easily deployed on multimode or single mode fiber, at a distance up to 120km, or over a single core fiber using BiDi (WDM) SFP modules. The DS3/E3 connections utilize industry standard BNC connections for transmit and receive via coaxial cables. When the FRM220-DS3/E3 card is used standalone in a single slot chassis, DIP switches may be used for configuration and loopback control. When placed in a single slot chassis with console port, an easy to maneuver user menu is available via terminal to configure, monitor, and run diagnostic loop back functions. The EOC (embedded operations channel) allows in-band management to control the remotely connected modem over a working fiber link. When the FRM220-DS3/E3 card is placed in the FRM220 rack with SNMP management, the management can configure and view the local and remote converter cards' status, type, version, fiber link status and alarms.

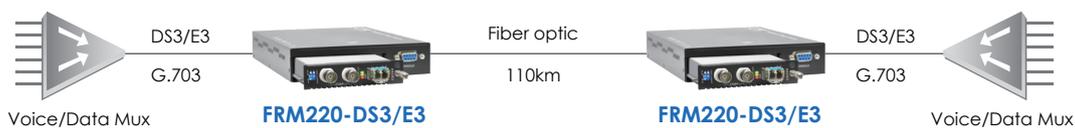
### Features

- In-band network Managed via Terminal, web or SNMP in FRM220 chassis
- DS3/E3 Coax (BNC) to Fiber SFP fiber modem
- Supports AIS (Alarm Indication Signal)
- User selectable E3 or DS3 setting
- Electrical and optical Loop back tests
- Standalone RS232 console management via CH01M

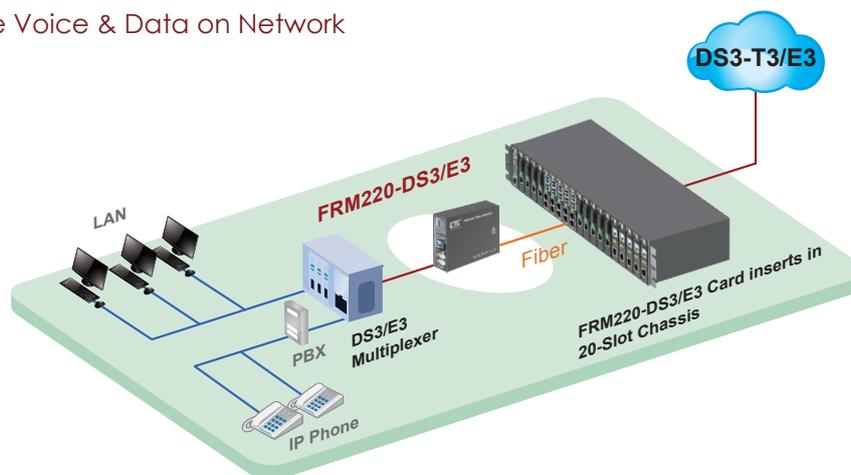
### Specifications

<b>Optical Interface</b>	Connector	SFP : LC (Uses standard 100Base-X/OC-3 SFP)	<b>Electrical Interface</b>	Connector	75 ohm Coax, TX output min: +2.5dBm max : +9.1dBm
	Data Rate	DS3/T3 = 44.7 Mbps; E3 = 34.4 Mbps		RX input min: -9.7dBm, max +10.5dBm	
<b>Line Coding</b>	Distance	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km	Standards	ANSI, ITU-TS, ETSI, AT&T, G.703, G.921 & G.955	
	Wavelength	1310nm, 1550nm, CWDM 1471nm ~ 1611nm	Indications	Power, Coax link, coax loop-back, AIS on coax link; FX link, fiber loop-back ,AIS on FX link	
	<b>Dimensions</b>	Card: 155 x 20.8 x 88mm (D x W x H)	<b>Power Input</b>	12VDC	
<b>Weight</b>	120g	<b>Power Consumption</b>	< 6W		
<b>Temperature</b>	0 ~ 50°C (Operating), -10 ~ 70°C (Storage)				
<b>Certification</b>	CE, FCC				

### Application



Integrate Voice & Data on Network



### Ordering Information

Model Name	Description
FRM220-DS3/E3	DS3/E3 Coax (BNC) to Fiber SFP fiber media converter

**Note:** This card must use CH01M, with serial console, to configure standalone settings.

When connected as a remote to a managed central chassis, this card supports in-band management and only needs a CH01 chassis.