



## FRM220-ET100

### 10/100Base-TX Ethernet over E1 Fiber

FRM220-ET100 is a single Port Fiber WAN (TDM) card with built-in HDLC Ethernet Bridge for the FRM220 Series. The converter supports Nx 64 data rates from 64Kbps up to 2.048Mbps when linked by fiber to FRM220-Data or FRM220-E1/ T1 cards. The clock source may be selected internally or recovered from received fiber signal. The Ethernet port utilizes a single RJ-45 connector. When the FRM220-ET100 card is placed in the FRM220 rack with SNMP management, the management can view the converter card's status, type, version, Ethernet link status and alarms. The card can be configured to enable or disable the port, reset the card, set clocking, data rate and provide digital diagnostic loopbacks. A unique feature of the FRM220-ET100 is the use of a common card design which may either be inserted in the FRM220-CH01 single slot chassis as a stand-alone modem or as a card when placed in the FRM220-CH20 managed rack.

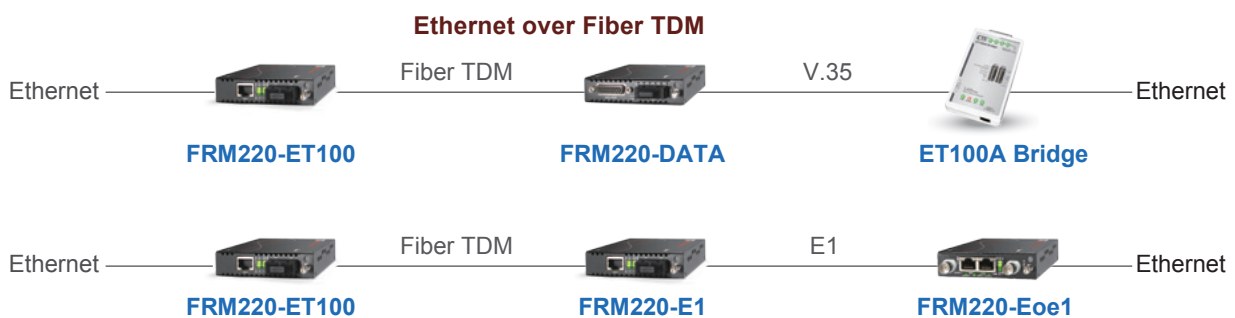
### Feature

- 1-Port Ethernet to HDLC (fiber) converter
- P2P Fiber link compatible with FRM220-E1/T1 and FRM220-Data
- Clock source (internal or external)
- Nx64k data rate (64kbps~2048kbps)
- Ethernet encapsulated with ISO 13239 standard HDLC
- Loop Back with integral BERT & LED indicators
- Firmware upgradeable, when placed in managed FRM220 chassis
- Interface connectors, RJ-45 for 10/100 Base-Tx
- Fixed optical for SC or ST, 2km(MM) to 120km(SM)

### Specifications

<b>TDM (fiber) Interface</b>	Connector	1 x 9 (SC, ST, FC)	<b>Indications</b>	PWR, TD/RD Act, Test, Sys, Alarm, Error	
	Data rate	64~2048kb/s(nx64)		<b>Power Input</b>	12VDC
	Distance	MM 2km, SM 15/30/50km WDM 20/40km			<b>Power Consumption</b>
	Wavelength	MM 1310nm, SM 1310, 1550nm WDM 1310Tx/1550Rx (type A) 1550Tx/1310Rx (type B)		<b>Dimensions</b>	
<b>Ethernet Interface</b>	Standards	IEEE 802.3u, IEEE 802.3	<b>Weight</b>	130g	
	Data rate	10Mbps, 100Mbps	<b>Temperature</b>	0 ~ 50°C (Operating), -10 ~ 70°C (Storage)	
	Duplex mode	Half / Full duplex	<b>Humidity</b>	10 ~ 90% RH (non-condensing)	
	Connector	RJ-45	<b>Certifications</b>	CE, FCC	
<b>Tests</b>	E1 Loops	Remote Loop back	<b>MTBF</b>	75,000 hrs	

### Application



### Ordering Information

Model Name	Description
FRM220-ET100	10/100Base-TX to E1 fiber modem
Connector Type	Connectivity Distance
SC,ST,FC	002: 2km 015: 15km 030: 30km 050: 50km 20A: WDM 20km A type 20B: WDM 20km B type 40A: WDM 40km A type 40B: WDM 40km B type

Connector Type    Connectivity Distance

**FRM220 – ET100** –

Example: **FRM220 – ET100 – SC002**

**Note:** This card may be set by DIP switch and placed in CH01 chassis, or set by serial console if placed in CH01M chassis. When connected as a remote to a managed central chassis, this card supports in-band management and only needs a CH01 chassis.