

## Managed Family

### Slide-in card & stand-alone V.35/X.21 RS-530/449/232 fiber converter

## FRM301-Data, FIB1-Data, FIB2-Data FRM301-Data/H, FIB1-Data/H



The FRM301-DATA and DATA/H are media converters for Nx64K up to 2.048Mbps or high-speed (up to 8.192Mbps for "H" model) synchronous or low speed synchronous and asynchronous data transmissions (V.35, RS-232, RS-530, X.21 or RS-449) over fiber optical media. When the FRM301-DATA card is placed in the FRM301 rack with SNMP management, in-band management allows viewing the card and remote converter's status, type, version, fiber link status, data link status and alarms. Both card and remote can be configured to enable or disable the port, reset the port, set the data rate, modify the clock mode, and initiate local or far end loop back tests. The FRM301-Data converter may also be paired with the FRM301-E1 for 2048K transmissions.

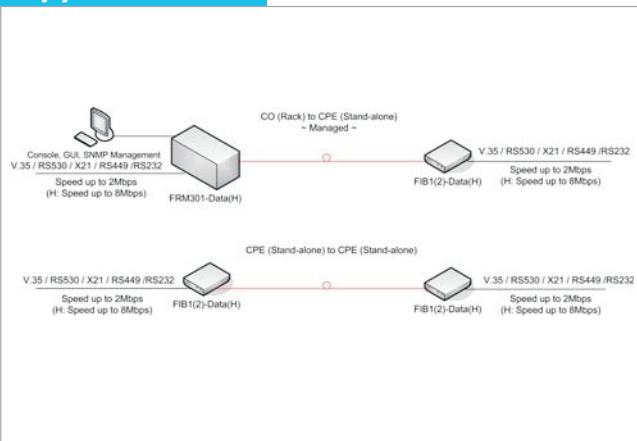
### Features

- Synchronous or Asynchronous data over fiber
- In-band management via terminal, GUI or SNMP in FRM301-CH chassis
- Supports interface: V.35, X.21, RS530, RS449, RS232
- DCE mode
- User selectable data rate Nx64kbps, up to 2Mbps (9Mbps for Data/H)
- Clock mode setting, internal, external, or recovery
- Electrical and optical loop back tests
- Compatible with FRM301-E1 on same fiber link for 2Mbps unframed

### Specifications

Ports	Connector : 1x9 (SC, ST, FC)
Optical Interface :	Data rate : 36.864Mbps
	Line coding : Scrambled NRZ
	Bit Error Rate : Less than 10 <sup>-10</sup>
	Cable type : MM 62.2/125µm, 50/125µm. SM 9/125µm
Distance :	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
	Wavelength : 1310nm, 1550nm
Electrical Interface :	Connector : HDB26F w/ adapter cable for V35, X21, RS530, RS449,RS232
	Line Code : NRZ
	Baud Rate : N*64Kbps , where n=1 to 32 (64K ~ 2048kbps) Low speed, Sync or Async, 75 to 115.2kbps
	Clock mode : Transparent, Recovery, External, Internal RC, TC, ETC normal or inverted

### Application



Standard	ITU-T
LEDs	Power, FX Link, TD, RD, RTS,CTS, DCD, Test
Power	FIB1:DC In 9V, FIB2:AC 100 ~ 240V/ DC 24 ~ 72V
Power Consumption	< 5W
Dimensions (D x W x H)mm	FRM301/FIB1: 123 x 86 x 20mm
	FIB2: 192 x 86 x 30mm
Weight	FRM301: 290g, FIB1:340g, FIB2: 550g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, LVD, RoHS

### Ordering Information

FXX-	XXX-	XX-	XXX
Product Type	Interface Type	Connector Type	Connectivity Distance
FRM301	V35 Æ V35	SC	MM: 2km
FIB1	X21 Æ X21	ST	SM: 15/30/50/80/120km
FIB2	RS530 Æ RS530	FC	WDM: 20/40/60/80km
	RS449 Æ RS449		
	RS232 Æ RS232		
	V35H Æ V35(8M)		
	X21 Æ X21(8M)		
	RS530H Æ RS530(8M)		

