



## RealTime Fiber Modems

### Overview

RealTime fiber modem converts an E1 (G.703), V.35 or Ethernet electrical signal into an optical signal. These modems are used to extend E1, V.35 or Ethernet connectivity up to the distance of 100Km. These modems work in a transparent or fractional mode to support V.35 and Ethernet (NX64) connectivity, these modems provide a cost-effective solution when used to extend the access network beyond the SDH networks and can be used in FTTP/FTTH networks. RealTime fiber modems can interoperate with each other to provide the variety of end user data interfaces.

### Key Features

- RealTime Fiber modems Support E1 (G.703)/ V.35/Ethernet interface and a fiber optic interface
- Extends E1/V.35/Ethernet service range up-to 100Km.
- Operates over single mode or multimode fiber
- Front panel LED indicators are provided for status monitoring and diagnostics on data and fiber interfaces.
- Local and remote Loop-back supported
- Dip switches are available for activation of various loop-backs
- Supports AC and/or DC power supply option
- Supports RS232 interface for Data and network management.
- RealTime Fiber modems Interoperate with each other

### Applications

- 2.048 Mb/s structured and unstructured. P2P & P2MP applications.
- Public switch to ISDN/PABX switch.
- Network to Client @ 2.048Mb/sec and N x 64 Kb/s (where N= 1 to 32).
- LAN Bridging.



## RealTime Fiber Modems

### E1 Fiber Modem



<b>Model</b>	<b>RFM-E1</b>
<b>E1 Interface</b>	
Physical/Electrical	120 Ohms(balance) /75 ohms(unbalance) network interface
Connectors	RJ45 & BNC
Standards	ITU-T G.703
Modes	Transparent
Coding	HDB3
Clock Options	Internal Clock/ Recovered Clock(optical)/ Recovered Clock(G.703)
Clock Rate	2.048Mbps±50ppm
<b>Optical Interface</b>	
Fiber	Single/Dual fiber, Single mode and multimode
Clock Rate	4.096Mbps±50ppm
Wavelength	1310nm/1550nm
Transmit power	-2~-11dBm
Receive sensitivity	Up-to -36dBm
Fiber Connector	SC/ST/FC
Transmission distance	2Km/40Km/60Km/120Km
<b>Power Supply</b>	
AC power	220VAC (Nominal) range 160V to 260V,50-60Hz
DC power	-48VDC (Nominal) range -36V~-60V
Power consumption	<5Watt
<b>Environment</b>	
Temperature	0°C to 50°C
Humidity	5-95% (non-condensing)
<b>LED indicators</b>	Power, SD (optical), OOF, LOS (E1) AIS, LOOP, Test
<b>Management</b>	RS-232 interface (Hyper Terminal)
<b>Diagnostics</b>	Local and remote loop-backs



## RealTime Fiber Modems

### V.35 Fiber Modem



<b>Model</b>	<b>RFM-V.35</b>
<b>V.35 Interface</b>	
Connector	DB-25, female
Control signals	DTR, DSR, DCD etc signals are supported
Modes	DCE, transparent and fractional
Data rate	64Kbps-2048Kbps, N x 64 Kbps (N=1 to 32)
Clock Options	Internal Clock/ Recovered Clock(optical)
Receive Data polarity	Inverted/non-inverted
<b>Optical Interface</b>	
Fiber	Single/Dual fiber, Single mode and multimode
Clock Rate	4.096Mbps±50ppm
Wavelength	1310nm/1550nm
Transmit power	-2~-11dBm
Receive sensitivity	Up-to -36dBm
Fiber Connector	SC/ST/FC
Transmission distance	2Km/40Km/60Km/120Km
<b>Power Supply</b>	
AC power	220VAC (Nominal) range 160V to 260V, 50-60Hz
DC power	-48VDC (Nominal) range -36V~-60V
Power consumption	<5Watt
<b>Environment</b>	
Temperature	0°C to 50°C
Humidity	5-95% (non-condensing)
<b>LED indicators</b>	Power, SD (optical), TD, RD, AIS, LOOP, Test
<b>Management</b>	RS-232 interface (Hyper Terminal)
<b>Diagnostics</b>	Local and remote loop-backs



## RealTime Fiber Modems

### Ethernet Fiber Modem



<b>Model</b>	<b>RFM-Eth</b>
<b>Ethernet Interface</b>	
Physical/Electrical modes	RJ45/RJ48C,Auto-MDI/MDIX
Standards	Transparent and fractional IEEE 802.3, IEEE 802.3U
Speed and duplex	10/100Mbps,Auto negotiation, Half/Full duplex,
Data rate	64Kbps-2048Kbps,N x 64 Kbps (N=1 to 32)
Clock Options	Internal Clock/ Recovered Clock(optical)
<b>Optical Interface</b>	
Fiber	Single/Dual fiber, Single mode and multimode
Clock Rate	4.096Mbps±50ppm
Wavelength	1310nm/1550nm
Transmit power	-2~-11dBm
Receive sensitivity	Upto -36dBm
Fiber Connector	SC/ST/FC
Transmission distance	2Km/40Km/60Km/120Km
<b>Power Supply</b>	
AC power	220VAC (Nominal) range 160V to 260V,50-60Hz
DC power	-48VDC (Nominal) range -36V~-60V
Power consumption	<5Watt
<b>Environment</b>	
Temperature	0°C to 50°C
Humidity	5-95% (non-condensing)
<b>LED indicators</b>	Power, SD(optical),Link(Ethernet), FDX, 10/100,OOF
<b>Management</b>	RS-232 interface (Hyper Terminal)

### Ordering Information

Model No	Description
<b>RFM-E1-XX</b>	E1 Fiber Modem
<b>RFM-V.35-XX</b>	V.35 Fiber Modem
<b>RFM-Eth-XX</b>	Ethernet Fiber Modem

**XX=00** for 220VAC power option, **XX=01** for 48VDC power option

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