

FRM220A-iMux16

FRM220A-iMux8

FRM220A-iMux4

Ethernet over Bonded E1 NTU

The FRM220A-iMux is an E1 inverse multiplexer capable of bundling 4E1/ 8E1/16E1 lines for cost-effective connection of 10/100Base-TX LANs over multiple E1 transports. The FRM220A-iMux bridges the gap between E1 and E3, allowing bridges to operate at faster rates. It also provides high speed access to SDH/SONET backbones where the only access services available are E1 lines. The FRM220A-iMux supports E1 attenuation of up to 43 dB on twisted pair or coax cable. This provides an approximate operating range up to 2km (using 22AWG). The FRM220A-iMux features diagnostic capabilities for performing remote loopback. The operator at either end of the line may test both FRM220A-iMux NTU and the line in the digital loopback mode. The Ethernet copper interface supports auto-negotiation and auto MDI/MDIX, allowing plug-and-play Ethernet connection without any additional configuration.

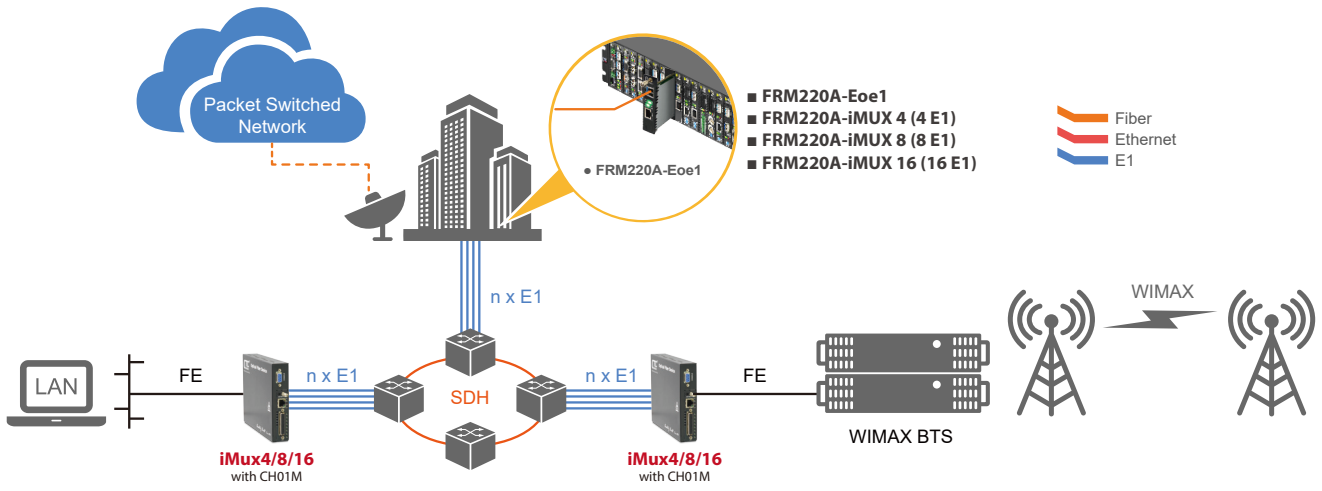
Features

- The FRM220A - iMux connects one Fast Ethernet over 1-4 E1 links (1.984Mbps to 7.93Mbps) for iMux4, over 1- 8 E1 links (1.984Mbps to 15.87Mbps) for iMux8, over 1- 16 E1 links (1.984Mbps to 31.74Mbps) for iMux16
- Built-in GFP bridge operates at WAN rate
- Maximum 220ms delay variance between E1 link
- Unbalanced E1/BNC or balanced E1/RJ45
- LED Alarm indication & Auto-Negotiation
- Standalone RS232 console management via CH01M for iMux4/iMux8, CH02M for iMux16
- Support MTU 1916 bytes

Specifications

| | | | | | |
|---------------------|---------------------------|--|--------------------|--|-----------------------|
| E1 Interface | Framing | CCS+CRC (Framed) | Power Input | 12VDC | |
| | Standard | ITU-T G.703/G.704/G.706 & G.732, G.823 | | Power Consumption | < 12W |
| | Encapsulation Protocol | VCAT & LCAS (ITU-T G.7042) GFP-F (ITU-T G.7041) | | | Dimensions |
| | Bit rate | 2.048Mbps± 50ppm (up to 5E1) | | Weight | |
| | Line code | HDB3 | | | Temperature |
| | Clock setting | Internal OSC or recovery clock | | Humidity | |
| | Receive level | -43dB | | | Certifications |
| | Line impedance | 75 ohm (BNC) / 120 ohm (RJ45) | | MTBF | |
| | Jitter Performance | Complies with ITU-T G.823 | | | |
| | Pulse Mask | Complies with ITU-T G.703 | | | |
| | Pulse amplitude | Nominal 2.37V ± 10% | | | |
| | Delay Variance | 220ms | | | |
| | Connector | RJ45, BNC | | | |
| | Diagnostics | Digital remote loopback | | | |
| | Ethernet Interface | Standards | | IEEE 802.3, 802.3u, 802.1q VLAN, 802.1d bridging | |
| Mac Address | | 1K | | | |
| Data rate | | 10/100Base-TX, Half/Full duplex | | | |
| Connector | | RJ45 10/100Base-TX | | | |
| Indications | | Power, ALM, E1 signal loss, E1 Alarm(AIS, LOF, RAI, LOMF), LAN link /ACT, 10/100M, SD (100Base-FX) | | | |

Application



Related Product



iMux4A-100 & iMux8A-100 (Standalone Ethernet to 4E1/8E1 Multiplexer)

Ordering Information

| Model Name | Description |
|-------------------|--|
| FRM220A-iMux16T-R | 10/100Base-TX to 16 E1 mux card with 16E1 RJ45 cable |
| FRM220A-iMux16T-B | 10/100Base-TX to 16 E1 mux card with 16E1 BNC cable |
| FRM220A-iMux8T-R | 10/100Base-TX to 8 E1 mux card with 8 E1 RJ45 cable |
| FRM220A-iMux8T-B | 10/100Base-TX to 8 E1 mux card with 8 E1 BNC cable |
| FRM220A-iMux4T-R | 10/100Base-TX to 4 E1 mux card with 4E1 RJ45 cable |
| FRM220A-iMux4T-B | 10/100Base-TX to 4 E1 mux card with 4E1 BNC cable |

Cable Type



RJ45 Cable



BNC Cable

Example: FRM220A - iMux -

Legend: nx E1 (top), Cable Type (right)

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Inverse Mux FRM220A-iMux16/iMux8/iMux4