FRM220A-Eoe1/G



Ethernet Bridge over E1

- HDLC
- MTU 2046bytes
- Unframed E1



The FRM220A-Eoe1/G is an Ethernet over E1 Bridge for cost-effective connection of 10/100Base-TX LANs over a single E1 transport. By using standard HDLC encapsulation, the FRM220A-Eoe1/G is able to transmit up to a 2M bits Ethernet over an E1 link. The FRM220A-Eoe1/G supports an E1 attenuation of up to 43 dB on twisted pair or coax cable, which provides an approximate operating range up to 2km (using 22AWG). The FRM220A-Eoe1/G fully meets E1 specifications including ITU-T G.704 and G.823. The Ethernet copper interface supports auto-negotiation and auto MDI/MDIX, allowing plug-and-play Ethernet connection without any additional configuration. When placed in FRM220 system, the Ethernet may be aggregated to the chassis's built in Ethernet switch. When placed in a single slot chassis and used standalone without management, the card may be configured by serial terminal.

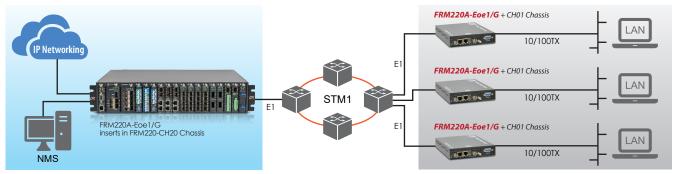
Features

- Connects one Fast Ethernet over E1 links (2.048Mbps)
- Built-in bridge operates at WAN rate
- Auto-Negotiation

- Unbalanced E1/BNC or balanced E1/RJ45
- LED Alarm indication
- Standalone RS232 console management via CH01M

| Specifications \ | | |
|--------------------|---|--|
| E1 Interface | Framing | Unframed |
| | Standard | ITU-T G.703/G.704/G.706 & G.732, G.823 |
| | Bit rate | 2.048Mbps± 50ppm |
| | Line code | HDB3 |
| | Clock setting | Internal OSC or recovery clock |
| | Receive level | -43dB |
| | Line impedance | 75 ohm (BNC) / 120 ohm (RJ-45) |
| | Jitter Performance | Complies with ITU-T G.823 |
| | Pulse Mask | Complies with ITU-T G.703 |
| | Pulse amplitude | Nominal 2.37V \pm 10% |
| | Delay Variance | 220ms |
| | Connector | RJ-45, BNC |
| Ethernet Interface | Diagnostics | Digital remote loopback |
| | Standards | IEEE 802.3, 802.3u |
| Ethernet Interface | Data rate | 10/100Base-TX |
| | MTU | 2046bytes |
| Connector | RJ45 | 10/100Base-T |
| Indications | Power, ALM,E1 signal loss ,E1 Alarm (AIS, LOF, RAI, LOMF), LAN link /ACT, 10/100M | |
| Power Input | 12VDC | |
| Power Consumption | < 6W | |
| Dimensions | $159.5 \times 20.8 \times 88 \text{mm (D} \times \text{W} \times \text{H)}$ | |
| Weight | DC12 : 280g AC/DC 48/AD : 580g | |
| Temperature | (1 0// | , , , |
| Humidity | 10 ~ 90% RH (non-condensing) | |
| Certifications | CE, FCC, RoHS complian | nt |
| MTBF | 65,000 hrs | |

Application



Central Office (CO)

Customer Premise Equipment (CPE)

Ordering Information

| Model Name | Description | |
|----------------|--|--|
| FRM220A-Eoe1/G | 10/100Base-TX to E1 bridge operates at WAN | |