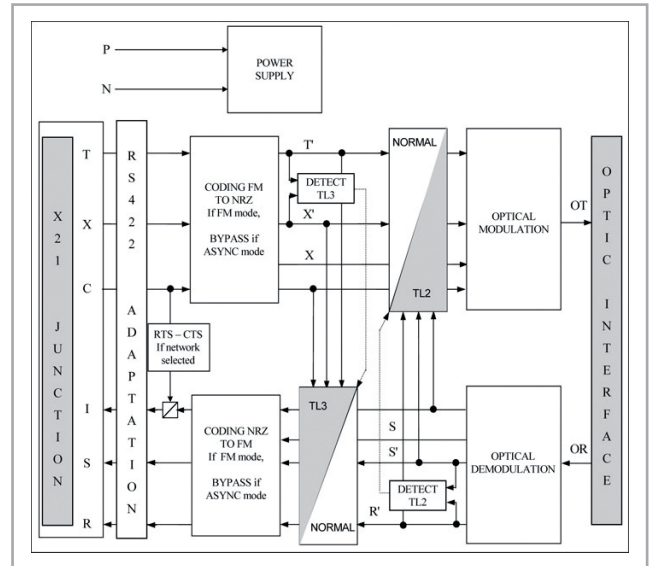
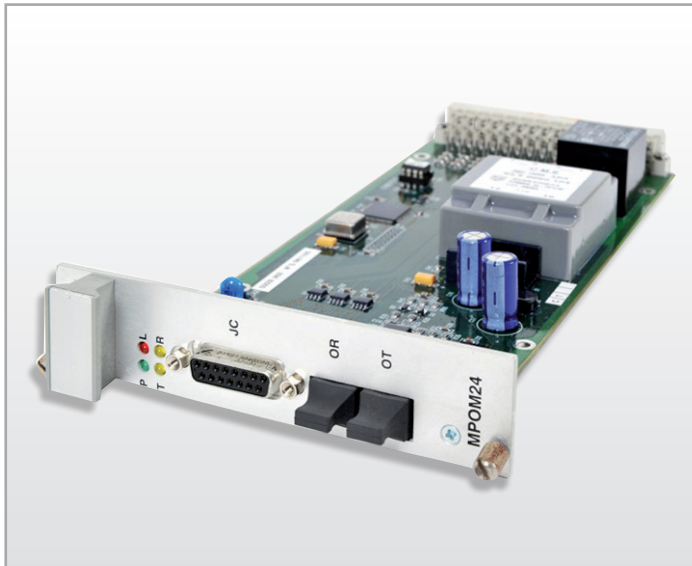


LDOM



MECHANICAL CHARACTERISTICS

- Board at Europe format: 220 mm x 100 mm, width = 6 TE (30,5 mm), weight: 0.5 Kg
- On the front side :
 - Junction connector D-SUB 15 points with female contacts
 - Optical transmit and receive connectors type SC
 - Knob
- On the rear side the connector is according to DIN 41612 type E48 with male contacts

ELECTRICAL CHARACTERISTICS

X21 port

- It is available at junction connector on the front panel and at rear connector
- All signals are in accordance with RS422 standard
- Inputs (received by the modem) are loaded by a 120 Ω internal resistor for line adaptation between A and B terminals. A terminal has an 1 KΩ internal pull-down and B terminal has an 1 KΩ internal pull-up
- Transmit data : coded in ASYNC mode, NRZ mode, FM0 mode or FM1 mode
- Transmit clock (if NRZ mode) :
 - a transition 1 to 0 is present at the beginning of the data bit
 - a transition 0 to 1 is present at the centre of the data bit
 - (if FMx mode) : X can be used as an auxiliary synchronous or asynchronous channel
- Control bit : it can be sampled asynchronously or synchronously with transmit data
- Receive data : coded in ASYNC mode, NRZ mode, FM0 mode or FM1 mode
- Receive clock (if NRZ mode) :
 - a transition 1 to 0 is present at the beginning of the data bit

- a transition 0 to 1 is present at the centre of the data bit
- (if FMx mode) : S can be used as an auxiliary synchronous or asynchronous channel
- Indicator bit : it can be generated asynchronously or synchronously with receive data

Configuration port

- The state of every signal is the result of the OR combination between switches located on the board (if present on the board) and terminals on the rear connector. Every signal is driven by a 20 KΩ internal pull-up

Performance

- Data bit rate from 31.25 to 2048 kbps in NRZ or FMx mode
- For asynchronous signals: C (I) and X (S) in FMx mode, or all signals in ASYNC mode the rate is up to 256 kb/s depending of maximum distortion desired. The maximum error due t
- Sampling is ± 480 ns
- Signals distortion is inferior to 10% at greatest bit rate

Reliability

- MTBF is according to MIL-HDBK217F
- It is estimated at 70 000 hours for an ambient temperature of 40 °C

Power supply

- The supply voltage is according to the type of modem :
 - LDOM230 (CAR 0346 201) : 230 V ac (184 to 253V) 0.03A 47 to 63 Hz
 - LDOM110 (optional) : 110 V ac (92 to 127V) 0.06A 47 to 63 Hz
 - LDOM24 (optional) : 24 V ac (19.2 to 26.4V) 0.25A 47 to 63 Hz

Insulation

- 2000 Vac between phase or neutral and protective ground
- 2000 Vac between phase or neutral and junction
- 1000 Vac between signals junction and protective ground
- Insulated resistance between alternative voltage and protective ground is more than 200 M

OPTICAL CHARACTERISTICS

- A1300 nm laser transmitter and receiver for single mode optic fibre
- Optical transmitter power with single mode fibre 9/125µm, 0-70°C :
 - Min -20 dBm , Max -14 dBm
- Optical receiver power with single mode fibre 9/125µm, 0-70°C :
 - Min -31 dBm , Max -8 dBm
- Optical power budget with single mode fibre 9/125µm, 0-70°C :
 - Min 7 dBm
- Note : optical power budget includes a safety margin of 4 dBm

ENVIRONMENTAL CHARACTERISTICS

- Operating temperature : 0 to 70°C
- Non operating temperature : -25 to 85°C
- Humidity : 10 to 95% non condensing
- EMC : according to ENV 50121-4
- Unconditionally eye safe laser IEC 825/CDRH class 1 compliant, Europe EN 60825-1