

SAT2200 Satellite Terminal

Technical Specifications

1 MDM2200 Modem



Interface

- Local Area Connection (LAN) : 10/100 TX (RJ-45)
- USB (future use) : USB 2.0
- Mass storage option (future use) : MicroSD cards
- RF in (from iLNB)
 - Frequency : 950 – 2150 MHz
 - Connector : F (female) – 75 Ohm
- RF out (to iLNB)
 - Frequency : 2750 – 2900 MHz
 - Connector : F (female) – 75 Ohm

Environment

- Operational : 0 to 40 °C
- Storage : -10 to 60 °C
- Humidity : 10 ~ 70% (non-condensing)

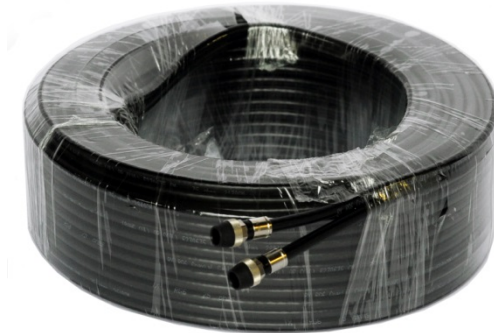
Power Supply

- Power supply
 - with Ka-band iLNB : 24 V (external adaptor)
 - with Ku-band iLNB : 18 V (external adaptor)
- Mains adaptor input : 100-240 V AC – 0.9A
- Mains power consumption : 50 W maximum

Dimensions

- W170 x D150 x H32 mm (including RF connectors)
- Weight : 0.45 kg

2 Coaxial Cable



Electrical

- Frequency range : 0.5 – 3.0 GHz
- Impedance : 75 +/- 3 Ohm
- Attenuation : < 18.0 dB @ 3000 MHz
- Return loss : > 18 dB up to 2150 MHz, > 15 dB up to 3000 MHz
- Structural return loss : up to 3 peaks of > 15 dB over 0.5 – 3.0 GHz band
- Screening attenuation : > 85 dB up to 2150 MHz, > 75 dB up to 3000 MHz
- DC-Resistance : < 3 Ohm (inner + outer)
- Compliant to standards : EN50117-2-4 and EN50117-2-5 (up to 3000 MHz)

Environment

- Ambient Temperature : -40 to +80 °C (operating & storage)
- Minimum Installation Temperature : -5 °C
- Relative Humidity : 0 ~ 100 %
- Weather Protection : IP67 – incl. Industrial & Coastal
- Solar Radiation : 1120 W/m²

3 ILNB (Outdoor Unit)

3.1 ILB2210: 2W Ka-band iLNB



Performance

- Receive characteristics
 - Gain : 57 to 70 dB \pm 0.5 dB / 10 °C
 - Spectrum conversion : non-inverted
- Transmit characteristics
 - Output power : + 33 dBm typical
 - Power stability : \pm 2 dB / 90 °C
 - Spectrum conversion : non-inverted

Interface

- RF in (receive)
 - Frequency : 19.56 – 20.2 GHz
 - Local Oscillator : 18.25 GHz
- RF out (transmit)
 - Frequency : 29.4 – 30 GHz (Ka-band)
 - Polarization : circular and orthogonal (LHCP and RHCP)

Environment

- Ambient Temperature : -30 to +60 °C
- Weather Protection : IP67
- Humidity : 0 ~ 100% (condensing)
- Solar Radiation : 500 W/m² maximum
- Rain : < 40 mm/h

3.2 ILB2110: 500 mW Ku-band iLNB ILB2120 & ILB2121: 800mW Ku-band iLNB



Performance

- Receive characteristics
 - Gain : 57 to 70 dB ± 0.5 dB / 10 °C
 - Spectrum conversion : non-inverted
- Transmit characteristics
 - Output power (ILB2110) : + 27 dBm typ.
 - Output power (ILB212x) : + 29 dBm typ.
 - Power stability : ± 1.5 dB / 90 °C
 - Spectrum conversion : non-inverted

Interface

- RF in (receive)
 - Frequency : 10.7 – 12.75 GHz
 - Polarization : physical mounting
- RF out (transmit)
 - Frequency : 13.75 – 14.5 GHz (Ku-band)
 - Polarization : linear and orthogonal to Rx

Environment

- Ambient Temperature : -30 to +60 °C
- Weather Protection : IP67
- Humidity : 0 ~ 100% (condensing)
- Solar Radiation : 500 W/m² maximum
- Rain : < 40 mm/h

3.3 ILB2140 & ILB2141 2W Ku-band iLNB



Performance

- Receive characteristics
 - Gain : 57 to 70 dB \pm 0.5 dB / 10 °C
 - Spectrum conversion : non-inverted
- Transmit characteristics
 - Output power (ILB214x) : + 33 dBm typ.
 - Power stability : \pm 1.5 dB / 90 °C
 - Spectrum conversion : non-inverted

Interface

- RF in (receive)
 - Frequency : 10.7 – 12.75 GHz
 - Polarization : physical mounting
- RF out (transmit)
 - Frequency : 13.75 – 14.5 GHz (Ku-band)
 - Polarization : linear and orthogonal to Rx

Environment

- Ambient Temperature : -30 to +60 °C
- Weather Protection : IP67
- Humidity : 0 ~ 100% (condensing)
- Solar Radiation : 1150 W/m² maximum
- Rain : < 40 mm/h

4 Antenna

4.1 ANT2010: 75cm Ka/Ku antenna



Environment

- Ambient Temperature : -30 to +60 °C
- Weather protection : incl. Industrial & coastal
- Relative Humidity : 0 ~100 %
- Solar Radiation : 1120 W/m²
- Wind Load (operating¹) : < 80 km/h (< 0.22° dev.TX)
- Wind Load (survival²) : < 180 km/h

Dimensions

- Reflector Height : 810 mm
- Reflector Width : 750 mm
- Aperture : 750 mm

¹ Operating: antenna remains operational with a maximum pointing degradation as indicated.

² Survival: the antenna will be degraded permanently, however no parts of the antenna will get loose.

- Feed clamp : 40 mm diameter
- Elevation range : 0 – 90 deg
- Azimuth range : 0 – 360 deg
- Mast dimensions : 45 – 70 mm (60 – 70 mm recommended)
- Color : light grey – RAL 7037
- Weight : approx. 10 kg

4.2 ANT2025: 1m Ka/Ku antenna



Environment

- Ambient Temperature : -30 to +60 °C
- Weather protection : incl. Industrial & coastal
- Relative Humidity : 0 ~100 %
- Solar Radiation : 1150 W/m²
- Wind Load (operating³) : < 80 km/h (< 0.15° dev.TX)
- Wind Load (survival⁴) : < 180 km/h

³ Operating: antenna remains operational with a maximum pointing degradation as indicated.

⁴ Survival: the antenna will be degraded permanently, however no parts of the antenna will get loose.

Dimensions

- Reflector Height : 1077 mm
- Reflector Width : 1000 mm
- Aperture : 1000 mm
- Feed clamp : 40 mm diameter
- Elevation range : 10 – 90 deg
- Azimuth range : 0 – 360 deg
- Mast dimensions : 76 ± 1 mm
- Color : light grey – RAL 7037
- Weight : approx.. 21 kg

4.3 ANT2030: 1.2m Ku antenna

Environment

- Ambient Temperature : -30 to +60 °C
- Weather protection : incl. Industrial & coastal
- Relative Humidity : 0 ~100 %
- Solar Radiation : 1120 W/m²
- Wind Load (operating⁵) : < 80 km/h (< 0.22° dev.TX)
- Wind Load (survival⁶) : < 180 km/h

⁵ Operating: antenna remains operational with a maximum pointing degradation as indicated.

⁶ Survival: the antenna will be degraded permanently, however no parts of the antenna will get loose.

Dimensions

- Reflector Height : 1380 mm
- Reflector Width : 1280 mm
- Aperture : 1200 mm
- Feed clamp : 22 mm diameter
- Elevation range : 13 – 90 deg
- Azimuth range : 0 – 360 deg
- Mast dimensions : 76 ± 4 mm
- Color : light grey – RAL 7037
- Weight : approx. 20 kg