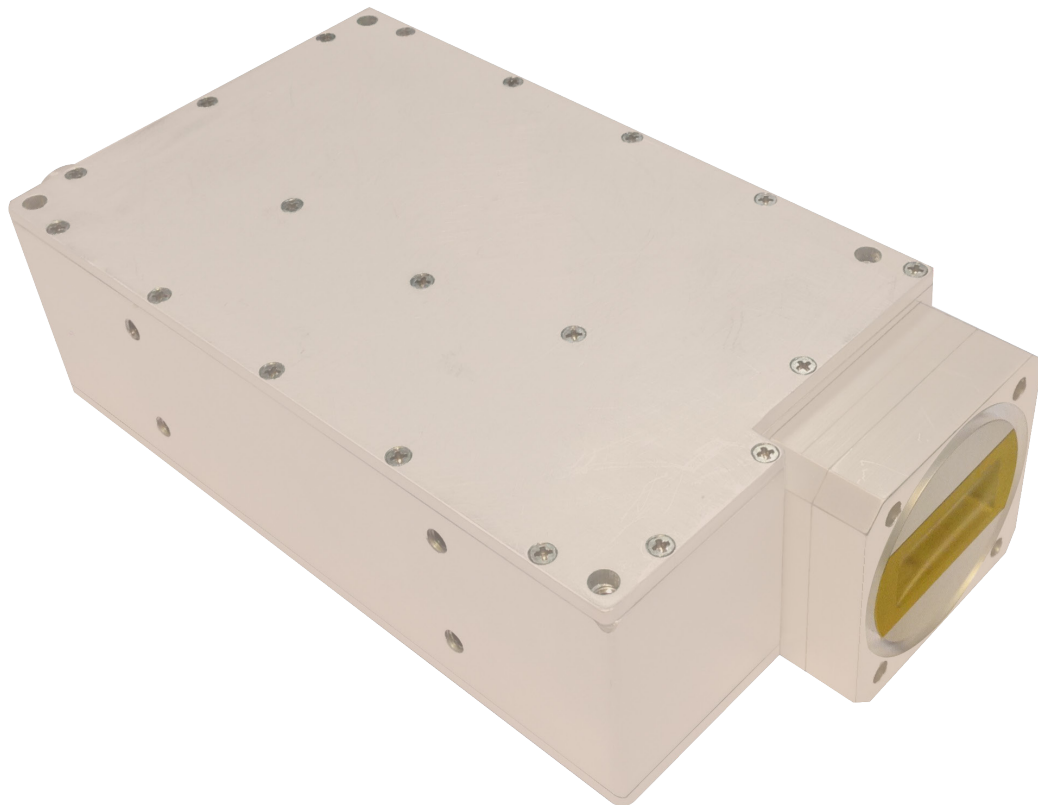
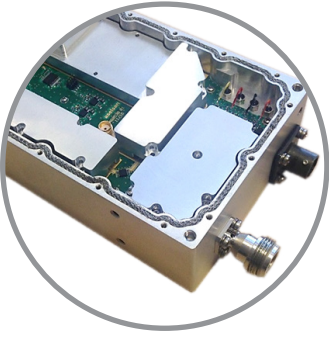


LNB

LOW NOISE BLOCK





LNB

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The X-Band LNB amplifies the signal along the receiving line at the satellite terminals through a low noise amplifier. Then, this signal is reduced to the desired IF value and transmitted to the modem. Its basic function is to convert the 7.25 - 7.75 GHz X-band signal to 950 - 1450 MHz IF signal with minimum distortion in signal-to-noise ratio (SNR). To achieve this, the noise figure (NF) will be minimal. The main signal will be amplified by more than 60 dB.

At the same time, the LNB will perform necessary filtering on broadcasts coming from the transmitting frequency and on the imaginary frequency band. The LNB will operate linearly at its output up to 10 dBm of RF power, in other words, the amplifiers used in the unit will have 1 dB points greater than 10 dBm.

There are 3 external interface connectors on the LNB:

- X-Band Input Interface Connector
- L-Band Output Interface Connector
- Alarm Output Connector (STA, status alarm)

Technical Requirements:

- The unit works as a down converter.
- Unit output is n type connector.
- Unit input is not damaged until 0 dBm power level.
- The operation of unit is not affected by the -35 dBm power level from the Tx band.
- In the unit, the supply, external reference and intermediate frequency signals are transmitted via a single cable (IFL).
- The unit works with built-in and external 10 MHz reference.

- Unit Input : WR112 type waveguide
- RF Input Signal : 7250 MHz – 7750 MHz
- IF Output Signal : 950 MHz – 1450 MHz
- Unit Gain : Greater than 60 dB
- Noise Temperature at 23 °C : Less than 60 K
- Supply Voltage : 12 – 24 VDC
- Output Impedance of the Unit: 50 Ohm
- Standing Wave Voltage Ratio (VSWR) at the input : Less than 1.5:1 (without insulator)
- Standing Wave Voltage Ratio (VSWR) at the output : Less than 2:1 (without insulator)
- External Reference : 10 MHz
- Operating Temperature Range: (-30) - (+60) °C
- Storage Temperature Range : (-40) - (+70) °C
- Operating Height : 3000 m
- Storage Height : 4500 m