

Orbital Ku-Band LNB with Multiple Local Oscillators

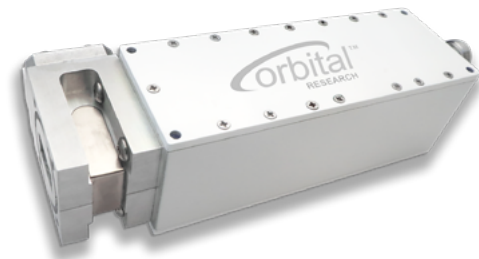
Description

Our Ku-Band low noise block downconverter (LNB) with multiple local oscillators is built for terrestrial and airborne satellite terminals. It lets you switch between different Ku frequency bands in the 10.7 GHz to 12.75 GHz range – and offers 1.05 GHz of bandwidth per LO. This LNB makes it possible to support several services with the same hardware. It offers:

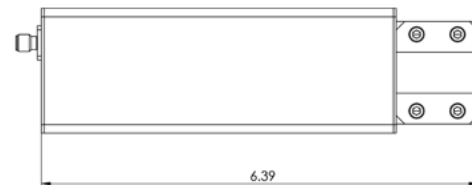
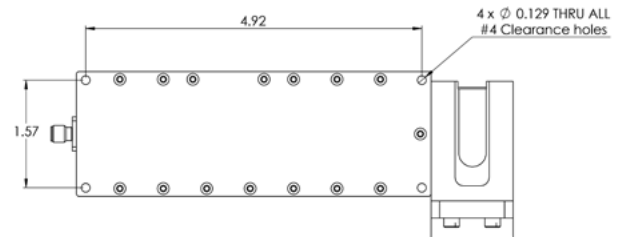
- Local or remote Ku-Band switching and user-selectable gain
- Exceptionally low phase noise for maximum data throughput
- Low noise figure < 0.8 dB for excellent signal to noise ratios
- Flat frequency response for higher-order modulation schemes
- Options for extreme temperatures
- External reference or PLL variants

The Orbital Ku-Band LNB with Multiple Local Oscillators is used for both military and commercial satellite communication applications, including large earth stations and SATCOM-on-the-Move (SOTM). Aeronautical versions are available to help carriers meet rising demand for bandwidth and reliable in-flight broadband connectivity.

ISO 9001:2015-certified QMS



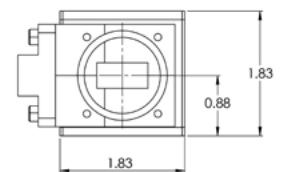
Mechanical Diagram



Connections
 J1: RF in (WR75-FBM, SQ. Grooved)
 J2: IF out, DC in & 10M in (N female - 50ohm)

Mounting
 1) 4x #4 clearance holes
 2) Isolator input #6-32 Clearance holes

Weight
 LNB: approx 500g
 Isolator: approx 60g
 Total weight: approx 560g



Orbital Ku-Band LNB with Multiple Local Oscillators

Specifications

FREQUENCY RANGE

RF Frequency Band (GHz)	10.7 to 12.75
IF Frequency Band (MHz)	950 to 3000
Bandwidth (MHz)	1000 to 2050 max
Local Oscillator (GHz)	9.75 to 10.75
Noise Figure (dB)	0.8 @ 25C
LO Stability	Locked to external reference
LO Phase Noise	Locked to external reference
Band Switching	Voltage

10 MHz REFERENCE

Insertion	via input connector
Input Level	-2 dBm to +8 dBm

VSWR

Input	1.4:1 with isolator
Output	1.3:1 typical

GAIN

Gain (dB)	60
Flatness	+/- 0.5 over 10 MHz
Ripple	+/- 2.5 dB over 1 GHz
Stability	+/- 3.0 dB over temperature

OTHER SPECS

Image Rejection	> 40 dBc max
1 dB Compression	+13 dB min
OIP3	+23 dBm min
Overdrive Power Level (Non-Damaging)	-20 dBm

ENVIRONMENTAL

Operating Temp	-40°C to +65°C
Non-Operating Temp Range	-50C to +80C
Humidity	100% condensing
MTBF	> 125,000 hours
Standards	MIL-STD-810F for vibration, IP67 RoHS and REACH

POWER

Current Draw	350 mA at 18 VDC
Input Voltage Range	+17 to +24 VDC

MECHANICAL

Weight (grams)	675 without isolator
Length (mm)	132
Width (mm)	47
Depth (mm)	47
Input Connector	WR-75
Output Connector	SMA, N

OPTIONS

Push Button or RS 422 Band Switching
PLL/Internal TCXO Reference
Gain Modifications, 40 and 50 dB
Temperature Compensated Gain +/-0.75 dB over freq and -20C to +55C
Extended Temperature Ranges
High OIP3/P1dB
Isolators for Improved VSWR or Flat Interfaces