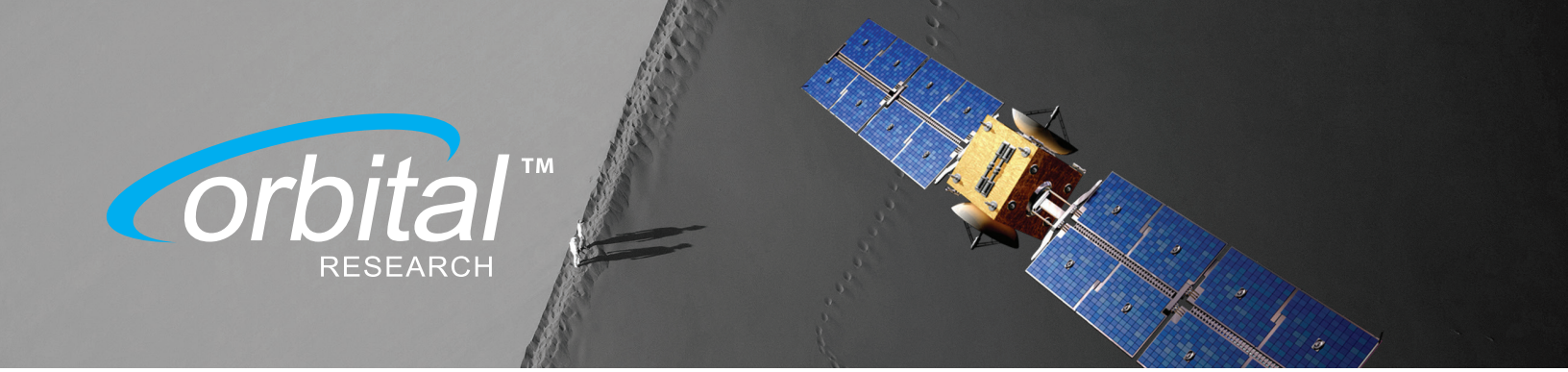
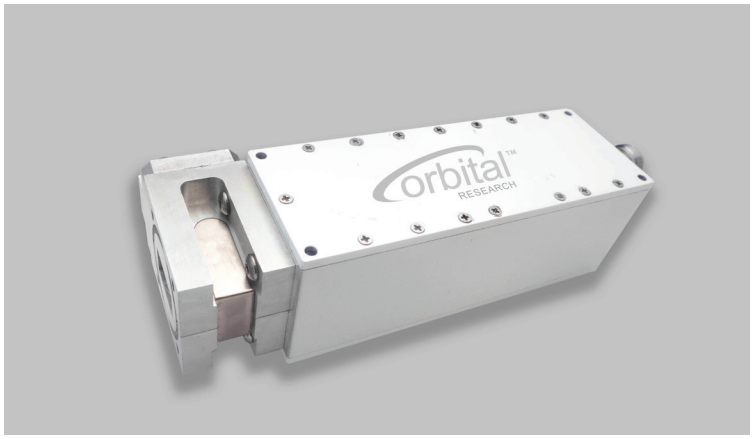


Orbital Ku-Band LNB with Fixed Local Oscillator

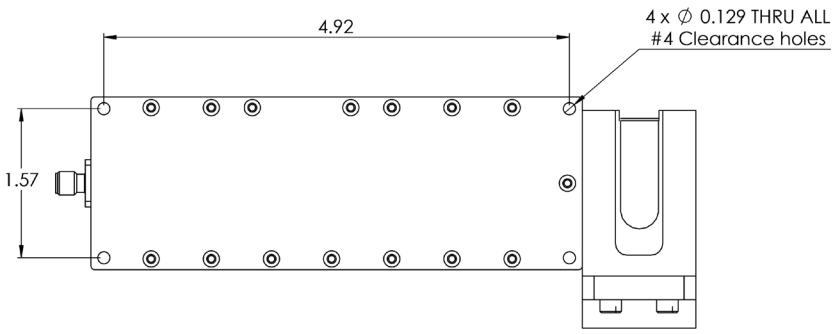


This Ku-band LNB is tuned to the exact frequency you require. It provides user bandwidth of up to 1.05 GHz in the 10.7 GHz to 12.75 GHz range – and offers exceptional performance for both commercial and military satellite communication (SATCOM) applications. 2.05 GHz wideband output versions are also available.

It offers:

- Exceptionally flat frequency response
- High data throughput and low bit error rate
- External isolator for impedance matching and maximum signal transfer
- Options for high temperatures and temperature-compensated gain
- External reference or PLL variants
- Airborne version available for in-flight connectivity

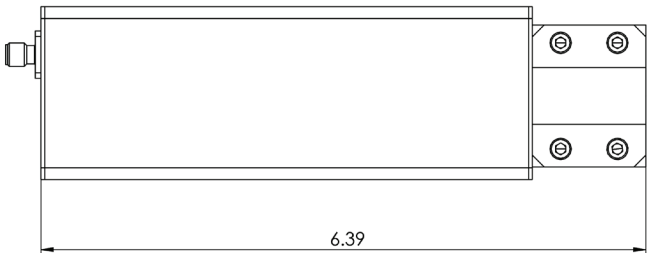
The LNB supports global Ku frequency bands across all ITU regions as well as commercially available Ku High Throughput Satellites (HTS). It delivers the gain, phase noise and linearity needed to handle higher-order modulation schemes in the GEO, MEO and LEO satellite markets.

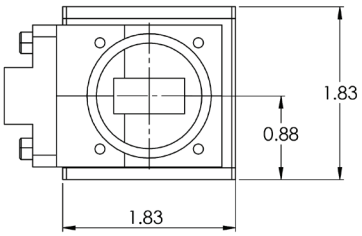


Connections
J1: RF in (WR75-FBM, SQ. Grooved)
J2: IF out, DC in &10M in (N female - 50ohm)

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

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





MODEL NUMBER: Ku FIXED LO EXT REF

FREQUENCY RANGE	
RF Frequency Band (GHz)	10.7 to 12.75
IF Frequency Band (MHz)	950 to 2150
Bandwidth (MHz)	1050 max
Local Oscillator (GHz)	16.35 to 20.25
Noise Figure (dB)	0.8 @ 25C
LO Stability	Locked to external reference
LO Phase Noise	Locked to external reference

10 MHz REFERENCE	
Insertion	via input connector
Input Level	-8 dBm to +8 dBm

VSWR	
Input	1.4:1 nominal with isolator
Output	1.3:1 nominal

GAIN	
Gain (dB)	55 nominal
Flatness	+/- 2.5 over frequency
Ripple	+/- 0.5 dB over any 10 MHz
Stability	+/- 0.25 dB over 24 hrs @ 25C

OTHER SPECS	
Image Rejection	> 40 dBc max
1 dB Compression (dBm)	+ 13 dB min
OIP3 (dBm)	+25 dBM min

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

POWER[1]	
Current Draw	350 mA at 18 VDC
Input Voltage Range	+17 to +24 VDC

MECHANICAL	
Weight (grams)	675 without isolator
Length (mm)	157mm/6.17 inches
Width (mm)	47mm/1.83 inches
Depth (mm)	47mm/1.83 inches
Input Connector	WR-75
Output Connector	SMA, N

OPTIONS
PLL versions
Gain modifications, 40 and 50 dB
Temperature compensated gain +/-0.75 dB over freq and -20C to +55C
Custom LO's available
Wideband 2.05 GHz output versions available
Extended temperature ranges
Isolators for improved VSWR or flat interfaces
Airborne version available

Please contact Orbital Research for ordering information: sales@orbitalresearch.net

[1] Power supplies must meet 100 mV maximum ripple and noise