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Orbital Ka-Band LNB with Multiple Local Oscillators

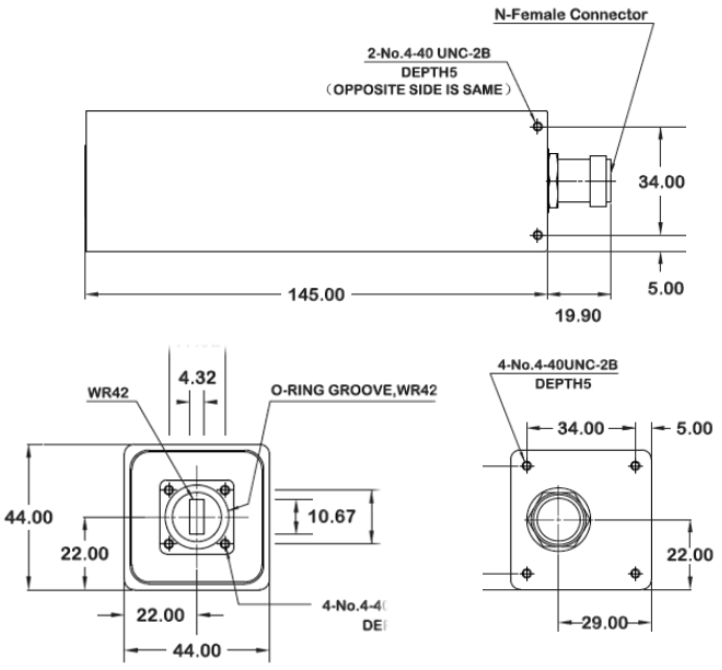
Description

This Ka-Band low noise block downconverter (LNB) uses multiple local oscillators to let you switch between different Ka frequency bands in the 19.20 to 21.20 GHz range. It provides user bandwidth of up to 1 GHz and offers exceptional performance for commercial and military satellite communication (SATCOM) applications.

- Switchable between different Ka frequency bands
- Local or remote band switching for flexibility in the field
- Flat frequency response for higher-order modulation schemes
- High data throughput and low bit error rate (BER)
- Internal isolators for impedance matching and maximum signal transfer; sealed in case to prevent pressure leaks
- Reduced SWAP (Size, Weight and Power)
- Switching power supply reduces current draw and heat
- Options for high temperatures and temperature compensated gain
- Airborne version available for in-flight connectivity

The external reference LNB supports Global Xpress (GSX) and Wideband Global SATCOM (WGS) configurations as well as commercially available Ka High Throughput Satellites (HTS). It delivers the gain, phase noise and linearity needed to handle higher-order modulation schemes in both the GEO and LEO satellite markets. Used in ARSTRAT and GX qualified terminals.

Mechanical Diagram



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Specifications

FREQUENCY RANGE

RF Frequency Band (GHz)	19.2 to 21.2
IF Frequency Band (MHz)	950 to 2000
Bandwidth (MHz)	1 GHz bands
Local Oscillator (GHz)	17.25 to 20.25
Noise Figure (dB)	1.5 max
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	-10 to 0 dBm

VSWR

Input	1.3:1
Output	2.0:1

GAIN

Gain (dB)	60 dB Low Band, 58 dB High Band
Flatness	+/- 1.5 dB over frequency
Ripple	+/- 0.3 dB over any 10 MHz
Stability	+/- 0.25 dB over 24 hrs @ 25C

LO PHASE

10 Hz	-32 dBc/Hz
100 Hz	-62 dBc/Hz
1 KHz	-72 dBc/Hz
10 KHz	-82 dBc/Hz
100 KHz	-92 dBc/Hz
1 MHz	-102 dBc/Hz

OTHER SPECS

Image Rejection	-40 dBm min
LO Leakage	-45 dBm
1 dB Compression (dBm)	+10 min
Overdrive Power Level Non-damaging	-20 dBm
OIP3 (dBm)	+20 min
Desense Level	-50 dBm transmit signal results in < 0.1 dB of NF degradation

ENVIRONMENTAL

Operating Temperature (deg C)	-40C to +60C
Humidity (%)	100% condensing
MTBF	> 200,000 hours
Standards	RoHS, REACH, IP67

POWER

Current Draw	5 watts max
Input Voltage Range	15 to 26 VDC

MECHANICAL

Weight (grams)	485
Dimensions (mm)	145 x 44 x 44
Input Connector	WR-42
Output Connector	N or SMA

CUSTOM OPTIONS

Push Button Band Switching
RS485 Via Micro D9 Switching
User Controlled Gain Via RS485
Customized Gain Settings Per Band
Extended Temperature Ranges
Airborne Version Available

PUSH BUTTON BAND SWITCHING

Specifications are subject to change without notice.

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