

# Low Noise Block (LNB)

## Ka-Band Dual-Band



### ◆ Company Overview

RevGo designs and manufactures satellite earth station RF from low to medium power. RevGo was founded in 2002 with its headquarters in the Washington DC corridor. RevGo's broad VSAT product line is produced to stringent quality standards using an ISO9001:2015 quality system:

- Block upconverter (BUC)
- Low noise block (LNB)
- Transceiver (Tx/Rx/OMT/filters)
- C-, Ku-, DBS-, Ka-bands
- 2 to 300W output power



### ◆ Reliability

- Highly integrated RF technologies (RFIC and GaN)
- Designed for high volume production
- Linearity optimized for high order modulation and high data rate
- Strict quality control processes resulting in <0.25% field failure rates

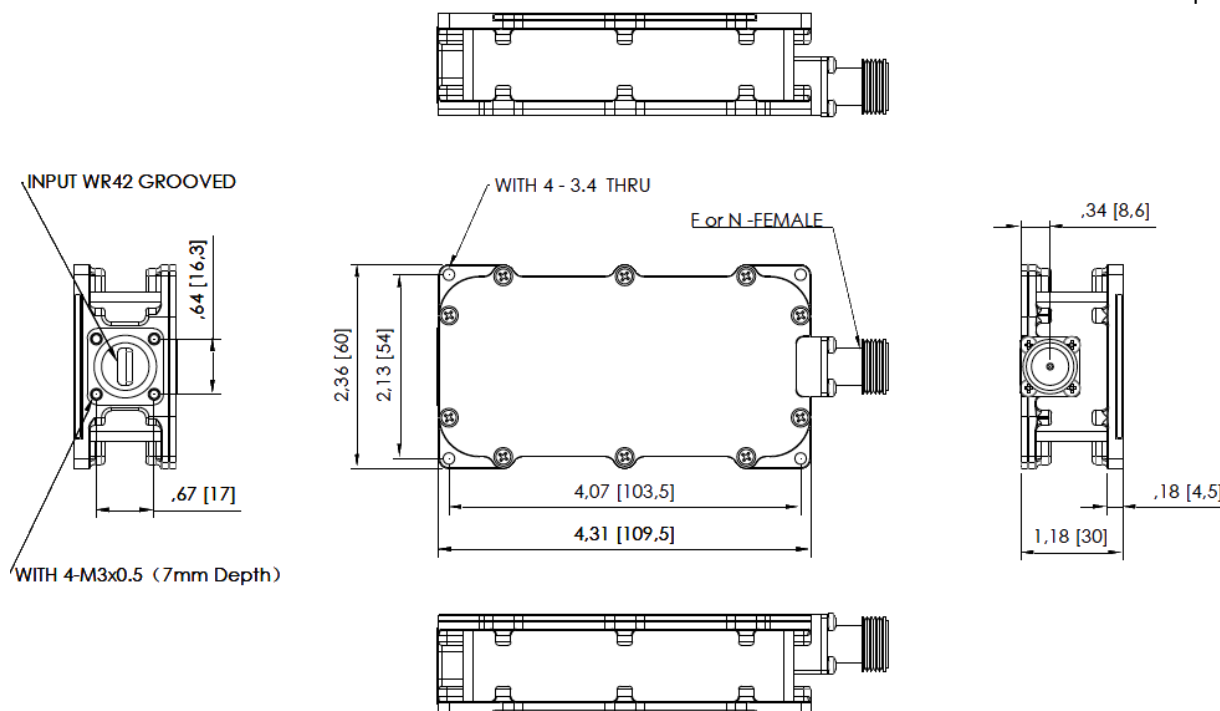
### ◆ Product Features

- Single-, and dual-band options (18.2-20.2 GHz)
- High LO stability (PLL design)
- Stability  $\pm 1$  ppm
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

### ◆ Typical VSAT Applications

- Maritime
- 5G Backhaul
- SNG Vehicle
- Terminals
  - Fixed
  - Portable
  - Transportable

### ◆ Mechanical Diagram (Unit: inch (mm))



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## SPECIFICATIONS

### ◆ RF Specifications

<b>IF Frequency</b>	
- Single-band	1: 17.2-18.2 GHz 2: 18.2-19.2 GHz 3: 19.2-20.2 GHz 4: 20.2-21.2 GHz 5: 21.2-21.7 GHz
- Dual-band	6: 18.2-19.2 GHz & 19.2-20.2 GHz 7: 19.2-20.2 GHz & 20.2-21.2 GHz
<b>Output Frequency</b>	A: 950-1950/1450 MHz B: 1000-2000 MHz
<b>Noise Figure</b>	1.5 dB (RF at band 1, 2, 3, 6) 1.6 dB (RF at band 4, 7) 1.7 dB (RF at band 5)
<b>LO Stability</b>	+/- 1 ppm External Reference (option)
<b>LO Leakage Level</b>	
- IF connector	-40 dBm maximum
- RF connector	-60 dBm maximum
<b>Conversion Gain</b>	55 to 65 dB
<b>Output P<sub>1</sub></b>	20 dBm typical
<b>Phase Noise</b>	-75 dBc/Hz max @ 1 KHz -85 dBc/Hz max @ 10 KHz -95 dBc/Hz max @ 100 KHz
<b>Image Rejection</b>	40 dBc minimum
<b>Output Spurious</b>	-55 dBc maximum

### ◆ Power Supply

<b>Input Power</b>	via IFL connector
- Single-band	12-24 VDC
- Dual-band	12-14 VDC; L-band 16-24 VDC; H-band
<b>Power Consumption</b>	5W

### ◆ Interfaces

<b>Input Connector</b>	WR42 (Grooved)
<b>IF Input VSWR</b>	2.5:1
<b>Pwr/Output Connector</b>	F- or N-Type Female
<b>Output VSWR</b>	2.0:1

### ◆ Physical Parameters

<b>Size</b> (inches)	5.24*2.36*1.18
(mm)	133*60*30
<b>Weight</b> (lbs)	0.93
(kg)	420
<b>Operating Temperature</b>	-40 to +60°C
<b>Humidity</b>	0-100% (condensing)
<b>Altitude</b>	0-10,000 feet ASL
<b>Water-proof Class</b>	IP 65

### ◆ Part Number / Ordering Information

R G L N - A a b c d - A 0

A: Ka-band

**a: Input Frequency**  
1 = 17.2-18.2 GHz  
2 = 18.2-19.2 GHz  
3 = 19.2-20.2 GHz  
4 = 20.2-21.2 GHz  
5 = 21.2-21.7 GHz  
6 = 18.2-20.2 GHz  
7 = 19.2-21.2 GHz

**b: Output Frequency**  
A = 950 to 1950 / 1450 MHz  
B = 1000 to 2000 MHz

**c: Ref Signal Stability**  
1 = +/- 1 ppm  
E = External Ref Signal

**d: Pwr/Output Connector**  
F = F-Type (75 Ohm)  
L = N-Type (50 Ohm)

### ◆ Contact Information

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