

Low Noise Block (LNB)

Ka-Band Dual-Band

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

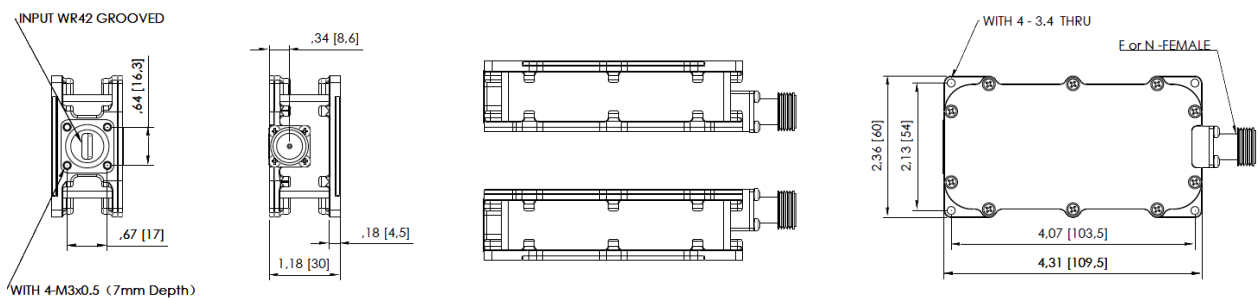
- Single-, and dual-band options (18.2-20.2 GHz)
- High LO stability (PLL design)
- Stability ± 1 ppm
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)



Typical VSAT Applications

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

Mechanical Diagram – Dual Band (Unit: inch (mm))



Low Noise Block (LNB)

Ka-Band Dual-Band

RF Specifications

IF Frequency	
- 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

Output Frequency	A: 950-1950/1450 MHz B: 1000-2000 MHz
-------------------------	--

Noise Figure	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)
---------------------	---

LO Stability	+/- 1 ppm External Reference (option)
---------------------	--

IF Frequency	
- IF connector	-40 dBm maximum
- rF connector	-60 dBm maximum

Conversion Gain	55 to 65 dB
------------------------	-------------

Output P-1	20 dBm typical
-------------------	----------------

Phase Noise	-75 dBc/Hz max @ 1 KHz -85 dBc/Hz max @ 10 KHz -95 dBc/Hz max @ 100 KHz
--------------------	---

Image Rejection	40 dBc minimum
------------------------	----------------

Output Spurious	-55 dBc maximum
------------------------	-----------------

Power Supply

Input Power	via IFL connector
- Single-band	12-24 VDC
- Dual-band	12-14 VDC; L-band 16-24 VDC; H-band

Power Consumption	5W
--------------------------	----

Interfaces

Input Connector	WR42 (Grooved)
------------------------	----------------

IF Input VSWR	2.5:1
----------------------	-------

Pwr/Output Connector	F- or N-Type Female
-----------------------------	---------------------

Output VSWR	2.0:1
--------------------	-------

Physical Parameters

Size	(Inches)	5.24*2.36*1.18
	(mm)	133*60*30

Weight	(lbs)	0.93
	(kg)	0.420

Operating Temperature	-40 to +60°C
------------------------------	--------------

Humidity	0-100% (condensing)
-----------------	---------------------

Altitude	0-40,000 feet ASL
-----------------	-------------------

Water-proof Class	IP 65
--------------------------	-------