



Orbital Wideband Ka-Band LNA

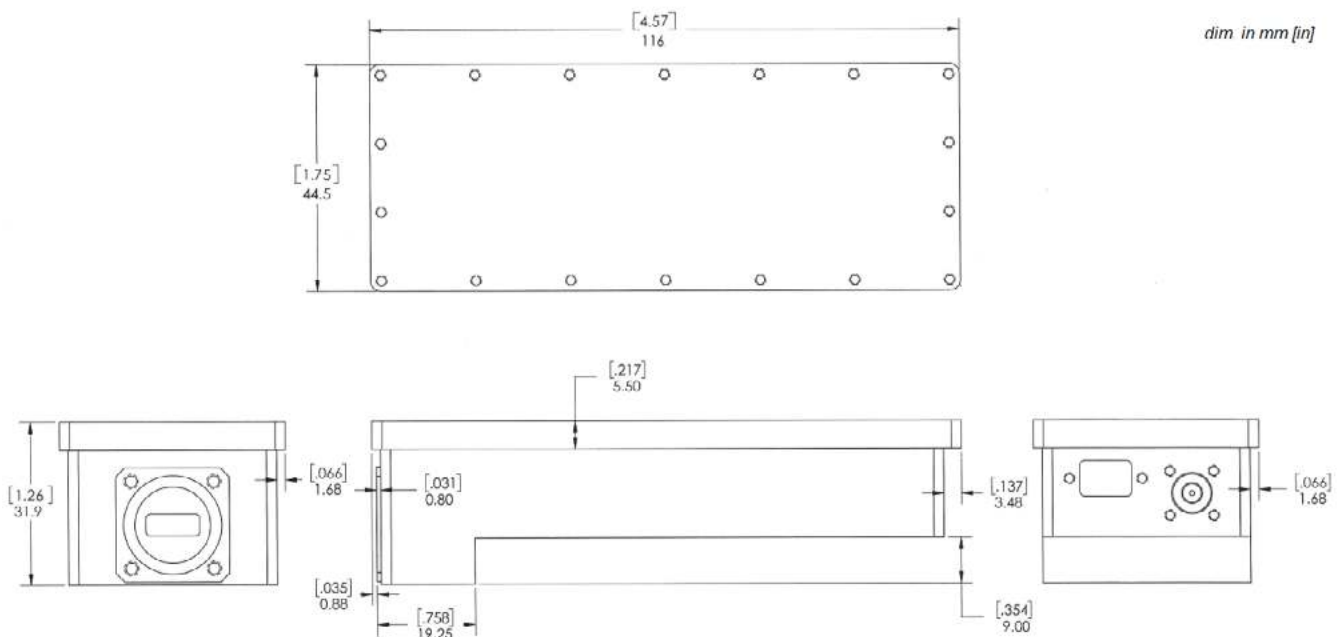


The new Ka-band low noise amplifier (LNA) from Orbital Research provides bandwidth of 4.0 GHz for commercial and military SATCOM applications. Designed primarily for satellite teleports and gateways, telemetry, tracking and command applications (TT&C), and airborne terminals, this wideband amplifier offers exceptional performance and data throughput.

- 4.0 GHz wideband coverage, 17.2 to 21.2 GHz
- High quality signal amplification
- Low noise temperature: 105 K typical
- 52 dB gain and excellent linearity across the band
- Options for high temperatures and temperature-compensated gain
- Optional remote monitoring capability

Our wideband Ka-band LNA leverages GaAs pHEMT MMIC technology and is small, lightweight, weatherproof and ruggedized. Each LNA is hand-tuned and comes with a data sheet that includes its own individual test results.

This LNA supports Ka High Throughput Satellites (HTS), Global Xpress (GX) and Wideband Gap Filler (WGS) configurations. It delivers the gain and linearity needed to handle higher-order modulation schemes like DVB-S2X, in both the GEO and LEO satellite markets.



FREQUENCY RANGE

RF Frequency Band	17.2 to 21.2
Bandwidth (GHz)	4.0
Noise Temperature (K)	105 typical

VSWR

Input	1.25:1 typical
Output	1.5:1

GAIN

Gain (dB)	52 dB typical
Gain Flatness	+/- 1.0 dB over any 2 GHz +/- 0.2 dB over 40 MHz
Stability	0.2 dB P-P/day
1 dB Compression (dBm)	>13
OIP3 (dBm)	>23

ENVIRONMENTAL

Operating Temp Range	-40C to +60C
Non-Operating Temp Range	-60C to +80C
Humidity	100%
MTBF (Telcordia)	> 220,000 hours
Standards	MIL-STD-188-164C

MECHANICAL

Weight (grams)	350 (with isolator)
Length (mm)	140.5 116 (case only)
Width (mm)	44.5
Depth (mm)	31.9
Input Connector	WR-42
Output Connector	SMA
M&C Interface	Micro DB9

POWER

Max Power Draw	2W
Input Voltage Range	12 to 28 VDC

OPTIONS

Extended Temperature Range to +70C
Gain Stability Over Temp (-20C to +55C) +/- 2 dB

OTHER SPECS

Monitor & Control Options:	Form "C" contact O/P RS485 (4 Wire)
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For more information or to request a free technical report, please contact us at sales@orbitalresearch.net or (604) 419-8585