

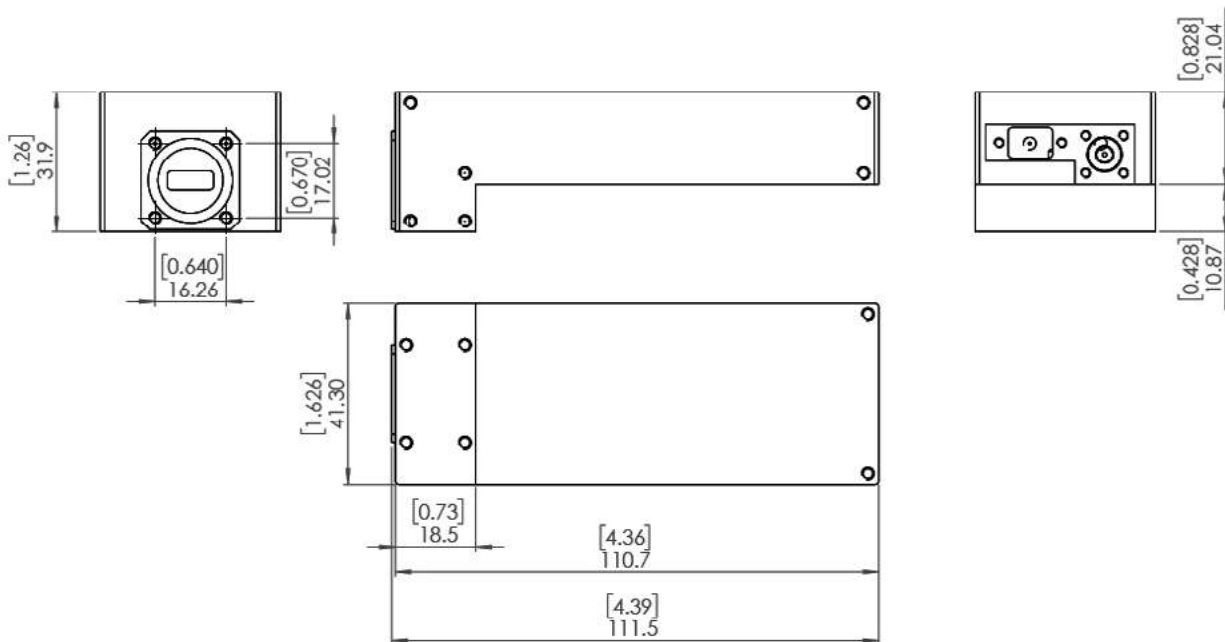
Orbital Wideband Ka-Band LNA



The new Ka-band low noise amplifier (LNA) from Orbital Research provides bandwidth of 2.5 GHz for commercial 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.

- 2.5 GHz wideband coverage, 17.7 to 20.2 GHz
- High quality signal amplification
- Low noise temperature: 120 K
- 55 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. The LNA supports Global Xpress (GX) configurations and Ka high throughput satellites (HTS) – and 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 (GHz)	17.7 to 20.2
Bandwidth (GHz)	2.5
Noise Temperature (K)	120 @ 23C

VSWR

Input	1.25:1 with isolator
Output	1.5:1

GAIN

Gain (dB)	55 nominal
Flatness	+/- 1 dB over any 500 MHz
Ripple (dB)	+/- 1.5
Stability	0.2 dB P-P/day

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
Input Voltage Range	+12 to + 24 VDC

MECHANICAL

Weight (grams)	250
Length (mm)	111.5
Width (mm)	41.3
Depth (mm)	31.9
Input Connector	WR-42
Output Connector	SMA
DC Input Connector	Micro DB9

POWER¹

Max Power Draw	2W
Input Voltage Range	10 to 28 VDC

OPTIONS

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

OTHER SPECS

1 dB Compression (dBm)	>13
OIP3 (dBm)	>23
Form C Relay Alarm O/P on Micro DB9 connector	

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

Specifications may change at any time.

¹ Power supplies must meet 100 mV maximum ripple and noise