



Orbital 694XA Ka Band LNB

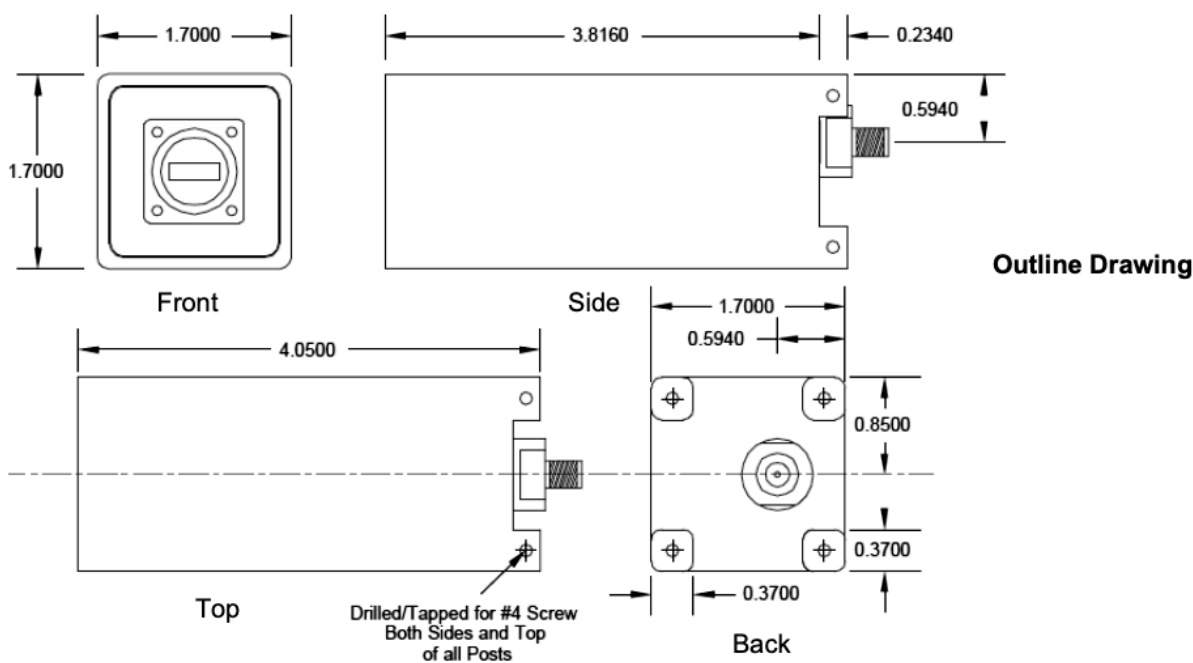


Our external reference Ka LNB with fixed local oscillator is perfect for applications where only a single Ka frequency is required. It offers excellent performance for commercial and military SATCOM in the 17.20 to 21.20 GHz frequency range.

This high-quality LNB is used in ARSTRAT-certified terminals and complies with MIL-STD-188-164a and MIL-STD-810F. It offers:

- Superior performance and reliability
- Rear anchor posts for secure mounting
- Exceptionally flat frequency response
- -40C to +90C temperature ranges available
- Airborne version available for in-flight connectivity

The Orbital 694XA has rear anchor posts for mounting flexibility – and is well-suited to mobile satellite communication and SATCOM-on-the-Move (SOTM) applications where vibration is a concern. External isolators are available to improve input VSWR performance. We also have a sealed version with an internal isolator if required.



FREQUENCY RANGE

RF Frequency Band (GHz)	17.3 to 21.2
IF Frequency Band (MHz)	950 to 2000
Bandwidth (MHz)	1000 max
Local Oscillator (GHz)	16.35 to 20.25
Noise Figure (dB)	1.4 max
LO Stability	Locked to external reference
LO Phase Noise	Locked to external reference

10 MHz REFERENCE

Insertion	via input connector
Input Level	-10 to +5 dBm

VSWR

Input	2.5:1 nominal*
Output	1.8:1 nominal

GAIN

Gain (dB)	60 nominal
Flatness	+/- 1.5 dB over frequency
Ripple	+/- 0.5 dB over any 10 MHz
Stability	+/- 0.25 dB over 24 hrs @ 25C

OTHER SPECS

Image Rejection	-40 dBm min
LO Leakage	-45 dBm
1 dB Compression (dBm)	+10 min
OIP3 (dBm)	+20 min

ENVIRONMENTAL

Operating Temp	-40°C to +60°C
Non-Operating Temp Range	-50 to +70 C
Humidity	100% condensing
MTBF	> 125,000 hours
Standards	RoHS and REACH

POWER¹

Current Draw	300 mA
Input Voltage Range	+12 to +24 VDC

MECHANICAL

Weight (grams)	400
Length (mm)	103 mm/4 inches
Width (mm)	44 mm/1.7 inches
Depth (mm)	44 mm/1.7 inches
Input Connector	WR-42
Output Connector	F, N, SMA

OPTIONS

Extended temperature to +90C
Gain modifications, 40 and 50 dB
Airborne version available

* Input isolator for improved VSWR (1.4:1 max)

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

¹ Power supplies must meet 100 mV maximum ripple and noise