

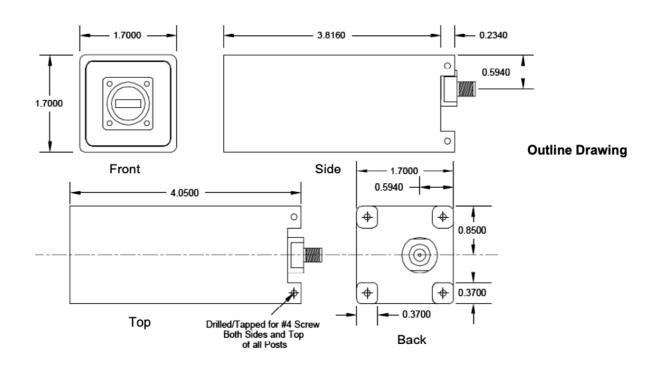
Orbital 694XA Ka-Band LNB with Fixed Local Oscillator



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.



MODEL NUMBER: 694XA SERIES



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

POWER ¹	
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