Orbital 3400X Series Modified C-Band External Reference LNB

40 to 60 dB gain, 250 to 800 MHz bandwidth

How to order an Orbital 3400X Series C-Band External Reference LNB

Frequencies (GHz):

LO	Input	Output	Bandwidth
5.15S	- 3.70 to 4.20	.95 to 1.45	0.500
5.15S	- 3.60 to 4.20	.95 to 1.55	0.600
5.15S	- 3.40 to 4.20	.95 to 1.75	0.800

Bandwidth in MHz

'X' Signifies External Reference

LNB 515S – 800 X-WN 40 -G

Input Connector
C Band LNB is CPR-229G

Output Connector
F - F, 75 ohm (standard)
N - N, 50 ohm
S - SMA, 50 ohm
T - TNC, 50 ohm

Gain
40 - 40 dB
50 - 50 dB
60 - 60 dB

Optional
G – Temperature Compensated Gain

Orbital Flexibility:

Engineered using the highest quality components insures you from failure due to environmental extremes, such as arctic cold, Saharan heat, and rain-forest humidity. Our LNB is protected from man-made conditions such as shock, vibration, low power, over-voltage, surges, transients, and static discharge. Performance is consistent and replacements will match or exceed your original device. Market leading specifications yield some of the best phase noise on the market.

"Mass-Custom" Solution

Orbital starts with a proven performance of our standard 3400X Series C-Band External Reference LNB, which is extremely well engineered. We then customize the mass produced LNB into what you want at 1/100 the cost of designing and building from scratch.

Orbital Features:

Custom Engineering

- Optimize Input and Output for superior VSWR
- Modify LO frequencies preserving phase noise and stability
- Modify and tune RF & IF filters for optimum response
- Tune for very low bandpass ripple
- Optimize Gain distribution for your system parameters

Environmental

- O ring sealed connectors for weather resistant operation
- Preserve the environmental engineering of the original LNB
- RoHS & REACH compliant

Options

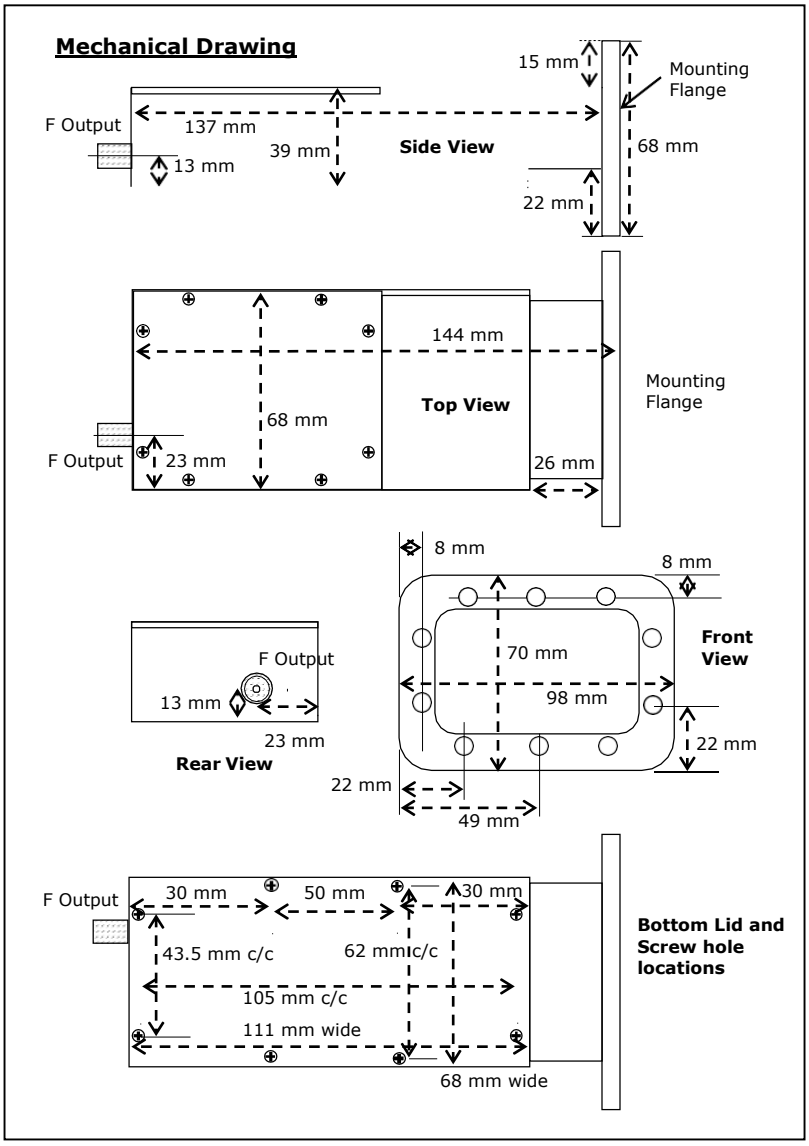
- Change output connector, gain or LO frequency, etc
- External DC & 10 MHz connector: F, N, BNC or Feedthrough
- Temperature Compensated Gain Variation
- Full test documentation available

Contact

David Zuvic 604 419-8585 Ext 837,
dzuvic@orbitalresearch.net

Trevor Hiebert 604-419-8585 Ext 836
thiebert@orbitalresearch.net

Orbital 3400X Series C Band External Reference LNB Specs



Electrical Specifications

Input

Frequency:	3.4-4.2, 3.7-4.2, GHz
Bandwidth:	up to 800 MHz
Noise Temp:	25 K typical
Ripple:	±0.5 dB max /36 MHz segment
Input VSWR:	2.2 : 1 max
10 MHz input window:	-8 dBm to 0 dBm (for best phase noise)

Output

Bandpass:	950 up to 1750 MHz
Output VSWR:	1.5 : 1 typical at 75Ω
Gain:	40 to 60 dB
LO Stability:	dependent on 10 MHz source
Compression:	+10dBm (standard bandwidth)
3rd Order Intercept:	+20 dBm (standard bandwidth)

Gain

Typical:	60 dB
Options:	40 dB, 50 dB
Ripple:	1dB p-p max per 36 MHz segment
Temperature Compensated Gain Variation (optional)	±0.75 dB max over frequency band and -20 to +55°C

Power

DC Input:	12 to 24 VDC, 300 mA
Filtering:	Transient, over and reverse voltage protected

Mechanical Specifications

Size:	144(L) x 68(W) x 39(H) mm (5.7 x 2.7 x 1.5 in)
Weight:	560 grams
Paint:	Brilliant White Enamel

RoHs & REACH Compliant

Environmental Specifications

Operating Temp:	-40 to +60 °Celsius
Relative Humidity:	Up to 100% condensation & frost

Block Diagram