

6924X Series Ku External Reference BLOCK DOWNCONVERTER (BDC)



20-40 dB gain, 250 to 1050 MHz bandwidth, any Ku satellite

How to order a 6924X Series Ku XR BDC

Frequencies (GHz):

LO	Input	Output	Bandwidth
9.75F	10.70 to 11.70	.95 to 1.95	1.000
10.00F	10.95 to 11.70	.95 to 1.70	0.750
10.15F	11.70 to 12.20	1.55 to 2.05	0.500
10.25F	11.20 to 11.70	.95 to 1.45	0.500
10.50F	11.45 to 11.95	.95 to 1.45	0.500
10.50F	11.45 to 12.20	.95 to 1.70	0.750
10.60F	11.70 to 12.20	1.10 to 1.60	0.500
10.75F	11.70 to 12.20	.95 to 1.45	0.500
10.75F	11.70 to 12.75	.95 to 2.00	1.050
11.25F	12.20 to 12.75	.95 to 1.50	0.550
11.30F	12.25 to 12.75	.95 to 1.45	0.500

Bandwidth in MHz

'X' Signifies
External
Reference

BDC 1075F - 500 X-SS 20

Input Connector
Ku BDC is SMA, 50Ω

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

Gain
20 - 20 dB
30 - 30 dB
40 - 40 dB

Orbital Flexibility:

With an LNA that covers your satellite, simply order an Orbital BDC to cover the bandwidth that you need. You can even cover from 10.7 to 12.75 with just two Orbital BDCs. Specify output connector types, external DC input, coaxial DC input, or dual power option. Most importantly, we can customize your gain to optimize compression point and noise distribution. Just tell us your needs and we will build a mass-custom solution in a unique, cost effective way.

"Mass-Custom" Solution

Orbital starts with a proven performance product that is extremely well engineered with the development costs amortized over hundreds of thousands of units and the parts costs reduced by volume discounts. We then customize the mass produced LNB into what you want.

Orbital Features:

Custom Engineering

- Begin with the low noise figure of a proven quality LNB
- Optimize Input and Output for superior VSWR
- Modify LO frequencies preserving phase noise & 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
- RoHS & REACH compliant

Options

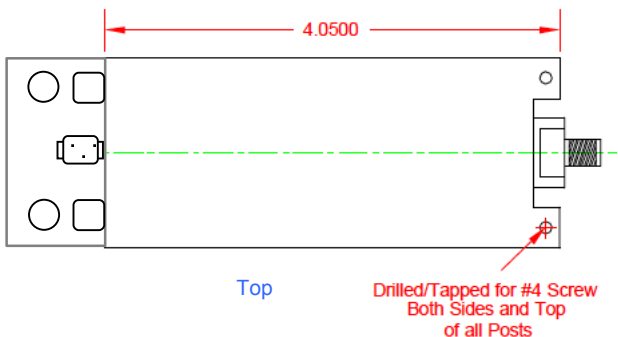
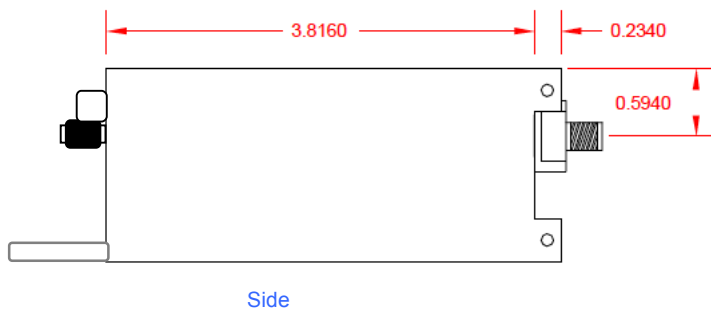
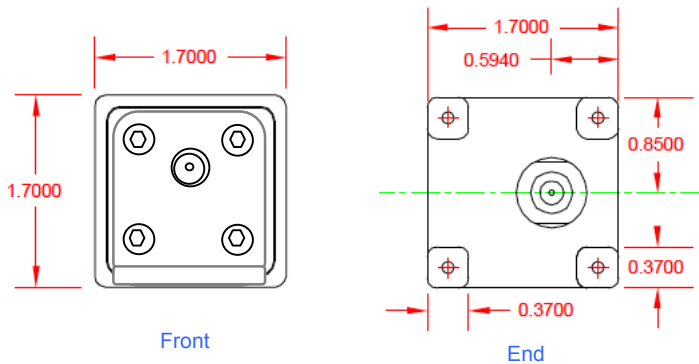
- External DC conn. - Feedthrough
- External 10 MHz Input Connector - SMA
- Temperature Compensated Gain Variation
- Can meet Mil-Std, custom mobile, or airborne specs on request

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Orbital 6924X Series Ku Ext Ref BDC Specifications

Mechanical Drawing



Electrical Specifications

Input

Frequency: See front page for the most popular frequency ranges, others available
 Bandwidth: up to 1.05 GHz
 Noise Figure: 10 dB max (dependent on gain and bandwidth)
 Input VSWR: 1.5 : 1 typical (2.0 : 1 max)
 10 MHz level: -5 dB to +5 dBm

Output

Bandpass: 950 up to 2000 MHz
 Output VSWR: 1.5 : 1 typical
 LO Stability: dependent on 10MHz source
 Compression: +5 dBm max (std bandwidth)
 3rd Order Intercept: +15 dBm max (std bandwidth)

Gain

Gain: 20, 30 or 40 dB (non-adjustable)
 Ripple: ± 0.75 dB max per 27MHz segment

Power

DC Input: 15 to 24 VDC, 250 mA max
 Filtering: Transient, over and reverse voltage protected

Mechanical Specifications

Size: 103 x 43 x 43 mm
 4.05 x 1.70 x 1.70 inches
 (without connectors)
 Weight: 350 grams max
 Coating: White Enamel
 RoHs & REACH Compliant

Environmental Specifications

Operating Temp: -40 to +60°Celsius
 Relative Humidity: Up to 100% condensation & frost
 MTBF: 122,000 hours

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