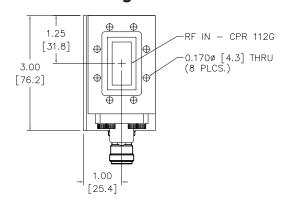
The TLNB-7500X X-Band Low Noise Block Converter is specially designed for SATCOM applications.

Utilizing state-of-the-art HEMT and GaAs FET technology, this block converter has been designed for both fixed and transportable applications. The TLNB-7500X has the quality, stability, and performance required for demanding receiver applications in today's SATCOM systems.

FEATURES:

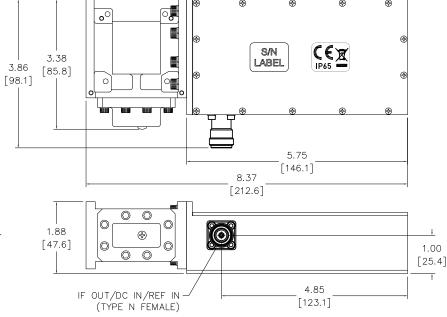
- Low noise temperature
- High reliability HEMT design
- Phase-locked oscillator
- Excellent phase noise
- Reverse polarity protection
- Wide operating temperature range, -40 °C to +70 °C

Outline Drawing



NOTES:

- 1. DIMENSIONS ARE IN INCHES AND [MILLIMETERS].
- 2. TOLERANCE $-\pm 0.02$ [0.5]. 3. PAINT: COLOR TO BE COMMERCIAL WHITE.



Outline 22077-5



TLNB7500X.0005 **Specifications**

Parameter	Notes	Specification
Input Frequency		7.25 GHz min., 7.75 GHz max.
Output Frequency		950 to 1450 MHz
Output Spectrum		Non-Inverted
Local Oscillator Frequency		6.30 GHz typical
LO Phase Noise	10 Hz 100 Hz 1 kHz 10 kHz 100 kHz 1 MHz	-32 dBc/Hz max62 dBc/Hz max72 dBc/Hz max82 dBc/Hz max92 dBc/Hz max102 dBc/Hz max.
Spurious	Signal related, IF Band Non-signal related, IF Band	-60 dBc max. -60 dBm max.
Gain (Nominal)		60 dB min., 63 dB typical, 66 dB max.
Gain Flatness		±1.0 dB max., over Full-band ±0.30 dB max., per 40 MHz
Gain Stability		±0.5 dB max., per week, constant temp. ±2 dB typical, versus temp.
Power Output at 1dB compression (P _{1 dB})		+15 dBm min., +18 dBm typical
3 rd Order Output Intercept Point (OIP ₃)		+25 dBm min., +28 dBm typical
Noise Temperature	At +23°C	45 K typical, 50 K max.
VSWR	Input Output	1.20:1 typical, 1.25:1 max. 1.50:1 typical, 1.80:1 max.
Connectors	RF Input IF Output/DC In/Ref. In	CPR112G Flange Type N Female
Power Requirements	Voltage Current	+12 VDC min., +22 VDC max. 400 mA typical, 450 mA max.
Operating Temperature	Тамв	-40°C to +70°C
External Reference Requirements	5	
Parameter	Notes	Specification
Frequency		10.00 MHz typical
Input Level		-5 dBm min., 0 dBm typical, +5 dBm max.,
Input Impedance		50 ohms typical
Phase Noise at Offset Frequency	10 Hz 100 kHz 1 kHz 10 kHz	-105 dBc/Hz -135 dBc/Hz -145 dBc/Hz -150 dBc/Hz

tape or heatshrink tubing to protect external connections.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system

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