



# X-band Warm LNA

## TTI-LNA-X-0412

### X Band LNA for Radioastronomy & Satellite Communications

#### TECHNICAL SPECIFICATIONS

##### ELECTRICAL

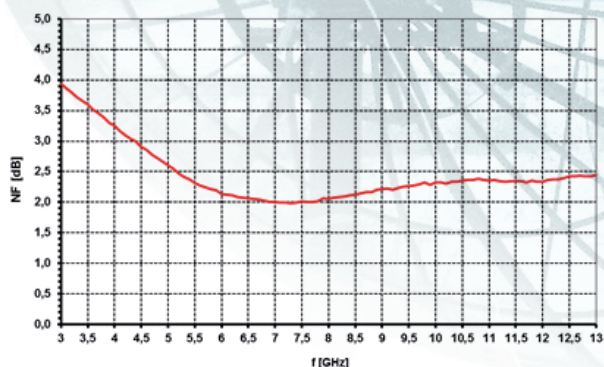
Operating frequency range	4-12 GHz
Input VSWR	<1.4:1
Output VSWR	<1.3:1
Amplifier noise figure	*see figure
Amplifier gain	29-30dB
Amplifier gain slope	0dB
Gain flatness	< 1dB (peak to peak) full band < 0.5dB (peak to peak) for any 2Ghz bandwidth
Gain compression	$P_{out_{1dB}} > 14dBm$
Current consumption	$\leq 135mA @ 12V$
Gain variation with temperature	$\leq 0.03dB/^{\circ}C$
Phase variation with temperature	$\leq 0.5degrees/^{\circ}C$
Phase variation with frequency	$\leq 1degree/10MHz$
Stability	Unconditionally stable
Power dissipation	$\leq 225mA$

##### MECHANICAL

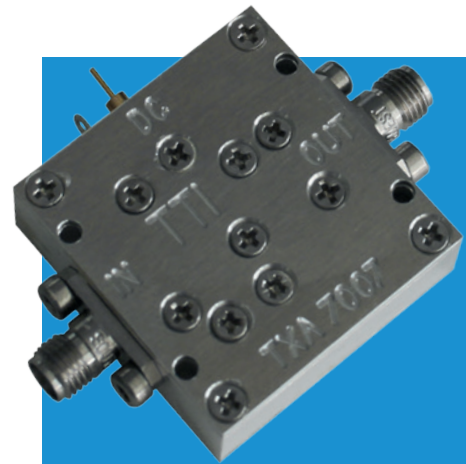
RF connector type	50 ohms SMA (female or male)
Bias connector type	Solder pin and ground lug attached to the chassis
Dimensions (L x W x H)	33.2 mm x 34.6 mm x 9.9 mm RF In and Out connectors located in-line at the centre of the housing
Weight	32 g

##### ENVIRONMENTAL

Storage temperature	-30°C to 60°C
Operating temperature	-20°C to 50°C
Biasing requirement	8-16V
EMC protection	Internal linear DC regulator, reverse voltage protection and DC filter feed-through



\*Typical Noise Figure Performance



#### Key Features

- Compact package
- Broad Band
- Low noise figure

TTI-LNA-X-0412 is a warm broadband low noise amplifier highly integrated in a compact package. It could be customised with different gain slopes, and optimised for specific subbands.