



X-band Cryogenic LNA

TTI-CLNA-8485

Cryogenic Low Noise Amplifiers for Radio Astronomy or Space Communications

TECHNICAL SPECIFICATIONS

ELECTRICAL

Frequency Range	8.4 – 8.5 GHz
Noise Temperature	< 3 K
Gain	40 to 44 dB
Gain Flatness	< 0.3dB
Maximum Gain Slope	±0.05dB / 20MHz
Gain Variation with T ^a	±0.25dB (±5K)
Gain Stability over time	±0.1dB (24 hours)
Input return loss	< -15 dB
Output return loss	< -15 dB
Output P _{1dB}	> +5dBm
Output IP3	> +15dBm
Coupling factor	30dB ± 1dB

INTERFACES & PHYSICAL

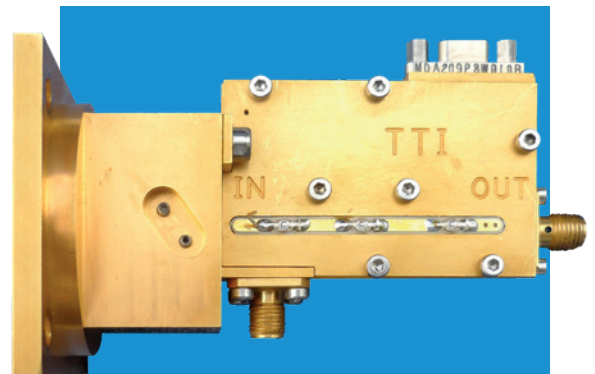
Input Connector	WR112 (UBR84)
Output Connector	SMA (female or male)
Coupler Interface	SMA (female or male)
Power Connector	MicroD
Dimensions (L x W x H)	77 x 48 x 48 mm

POWER SUPPLY

Power Consumption	< 12 mW / 45 mW (P1Bm +5dBm)
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*OPTION:

Frequency band: 8-9 GHz / NT: < 3.5 K/ Gain: 36-40 dB / Input-Output RL: < -10dB / Dimensions: 51 x 32 x 10 mm (SMA Input/Output) / Power Consumption: 14mW



TTI-CLNA-8485 is a X-band Cryogenic Low Noise Amplifier designed to operate at extremely low temperatures (4 to 15 K), with input coupler included.

Efficiency is key for Cryogenic amplifiers so we offer very low current consumption and a very light weight.

TTI-CLNA-8485 is extremely stable and highly reliable at cryogenic operating temperatures.

