

X BAND CRYO-LNA RANGE FOR RADIOASTRONOMY & QUANTUM COMPUTING

Using **cutting-edge technology**, the new cryo-LNA family offers outstanding performance in cryogenic operations

INNOVATIVE TECHNOLOGY

A combination of Indium Phosphide (InP) and Gallium Arsenide (GaAs) technologies to deliver outstanding low Noise Temperature (NT).

Each unit is fully tested in cryogenic operating temperatures and delivered with a complete factory acceptance test report at 295 K and 12 K.

TECHNICAL SPECIFICATIONS

ELECTRICAL

Operating frequency range	4-12 GHz
Noise temperature	<5 K at 12 K (average) <6.5 K at 12 K (maximum)
Input return loss (50 Ω)	<-3 dB
Output return loss (50 Ω)	<-10 dB
Gain	38 to 41 dB
Gain flatness	2.5 dB pp max
Reverse isolation	<-45 dB

POWER SUPPLY

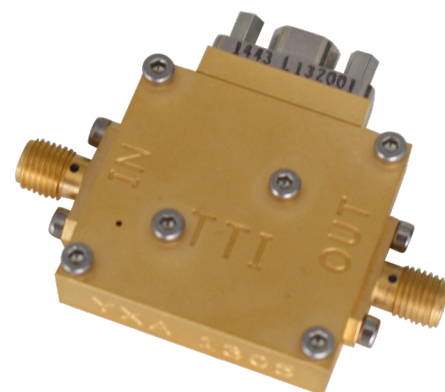
Drain voltage range	0.4 V to 1 V
Drain current range	<16 mA
Gate voltage range	-2 to +2 V
Power consumption	<12 mW
Power biasing	2 wires (one for V_D and one for V_G)

INTERFACES & PHYSICAL

Dimensions (L x W x H)	32 x 29 x 9 mm
Weight	28 gr
Interfaces	RF input: SMA (f) / SMA (m) RF output: SMA (f) / SMA (m) DC: Micro D 9-P

ENVIRONMENTAL

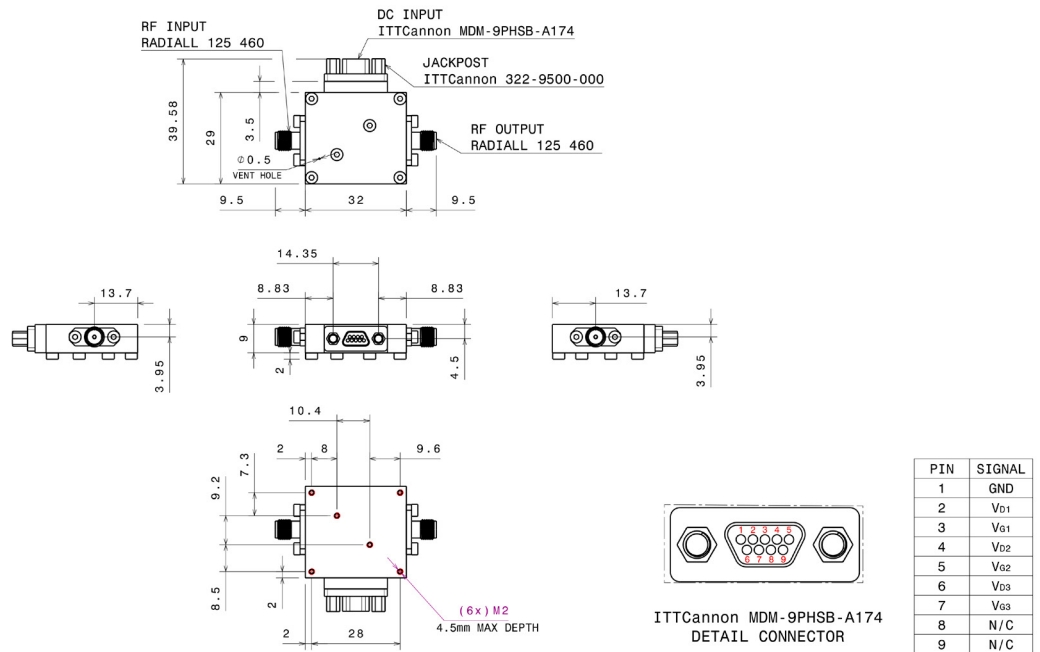
Operating temperature	2 K to 15 K
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KEY FEATURES

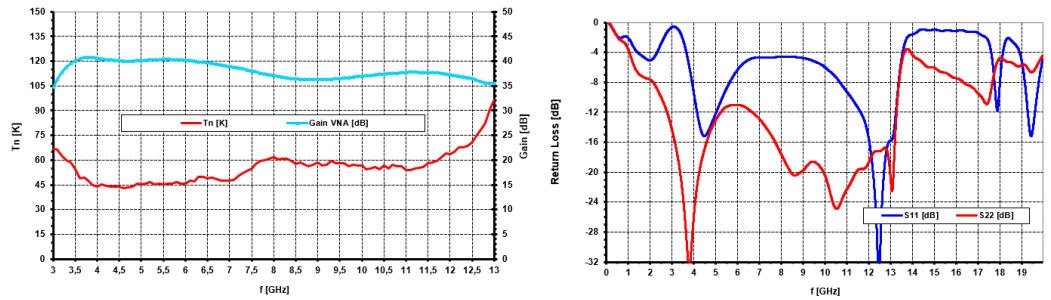
- * InP/GaAs technology
- * Extremely low temperatures operation (4 to 15 K)
- * Superior performance
- * High reliability & efficiency
- * Ultra-low noise figure
- * High gain & low ripple
- * Compact size & lightweight

OUTLINE DRAWING

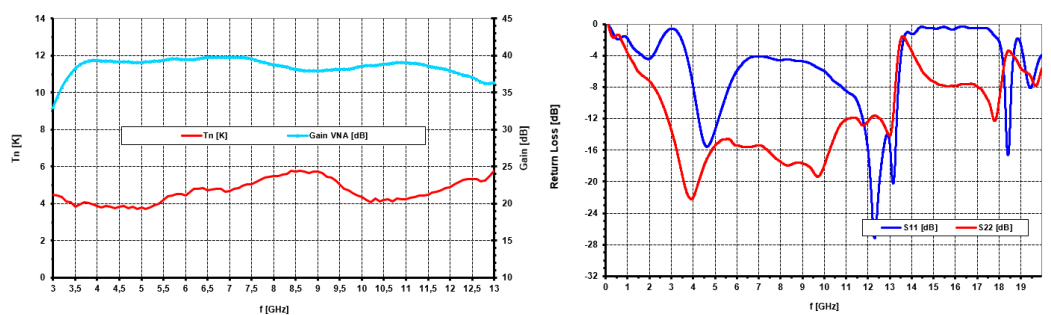


TYPICAL MEASURED DATA

Gain & Noise variation at 295 K



Gain & Noise variation at 12 K



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OPTIONS

- * Servo-controlled power supply unit

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NOTICE
Information contained in this document is subject to change without notice.

Dimensions are in mm and after treatment
Tolerance according to ISO 2768-f.