

S 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	2-4.5 GHz
Noise temperature	<3 K at 12 K
Input return loss (50 Ω)	<-7 dB
Output return loss (50 Ω)	<-14 dB
Gain	>28 dB (average)
Gain flatness	2.5 dB pp max
Reverse isolation	<-40 dB

POWER SUPPLY

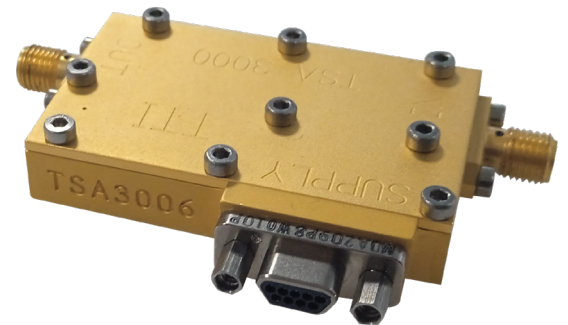
Drain voltage range	0 V to 1 V
Drain current range	<10 mA
Gate voltage range	-2 to +2 V
Power consumption	<10 mW
Power biasing	4 wires

INTERFACES & PHYSICAL

Dimensions (L x W x H)	47.85 x 28.8 x 9 mm
Weight	35 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
-----------------------	-------------



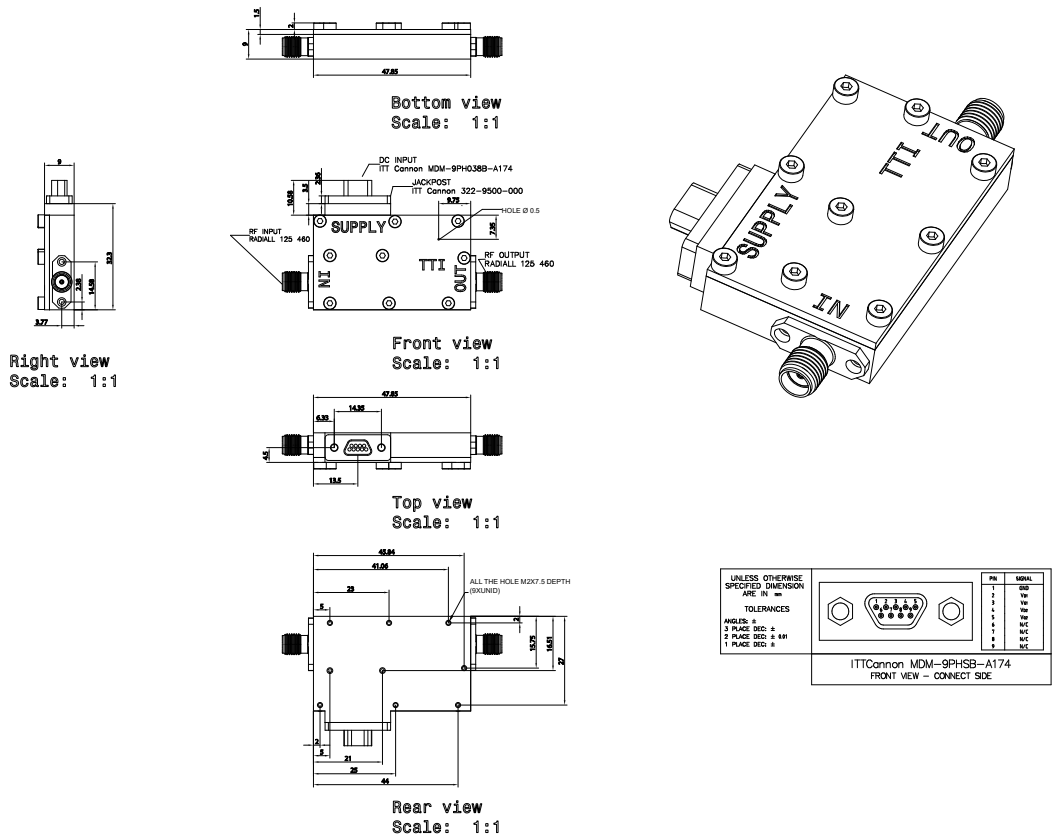
KEY FEATURES

- * 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

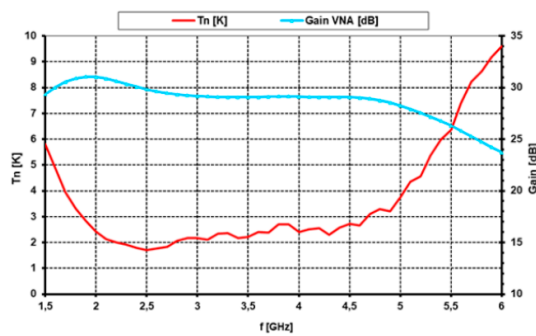
OPTIONS

- * Servo-controlled power supply unit

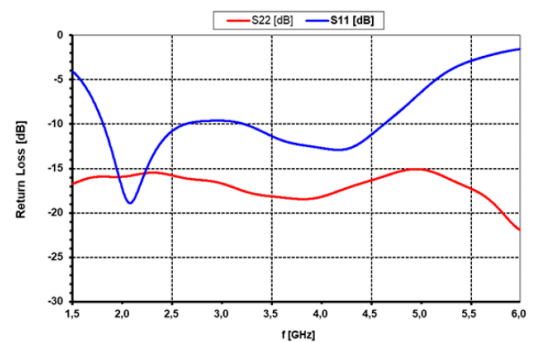


TYPICAL MEASURED DATA

Gain & Noise variation at 12 K



Input & output return losses at 12 K



CELESTIA TTI
sales@ttinorte.es
www.ttinorte.com

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.