

C 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

Based on Indium Phosphide (InP) technology 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	5.7-6.3 GHz
Noise temperature	<2.5 K at 12 K
Input return loss (50 Ω)	<-6 dB
Output return loss (50 Ω)	<-15 dB
Gain	>40 dB (average)
Gain flatness	0.5 dB pp max
Reverse isolation	<-50 dB

POWER SUPPLY

Drain voltage range	0 V to 1 V
Drain current range	≤15 mA
Gate voltage range	-3 to +3 V
Power consumption	≤8 mW
Power biasing	2 wires

INTERFACES & PHYSICAL

Dimensions (L x W x H)	37,65 x 28,2 x 10,5 mm
Weight	46 gr
Interfaces	RF input: SMA (f) / SMA (m) RF output: SMA (f) / SMA (m) DC: Nano D 9-P

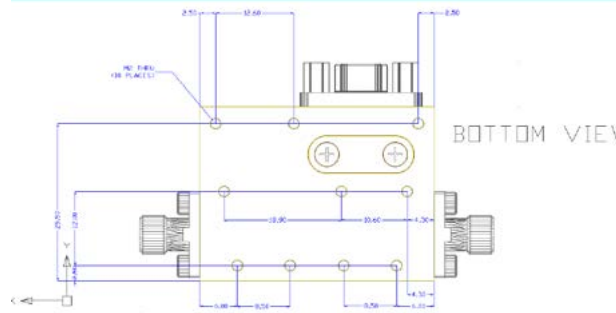
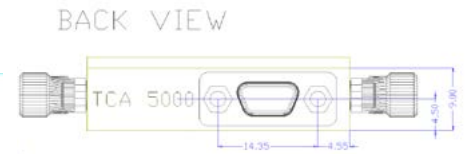
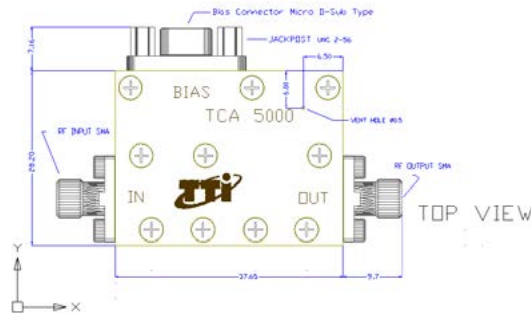
ENVIRONMENTAL

Operating temperature	2 K to 15 K
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KEY FEATURES

- * InP 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

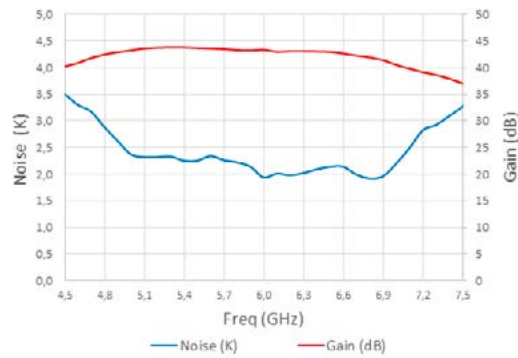


PIN	SIGNAL
1	GNP
2	VBI
3	VBI
4	VBI
5	VBI
6	VBI
7	VBI
8	N/C
9	N/C

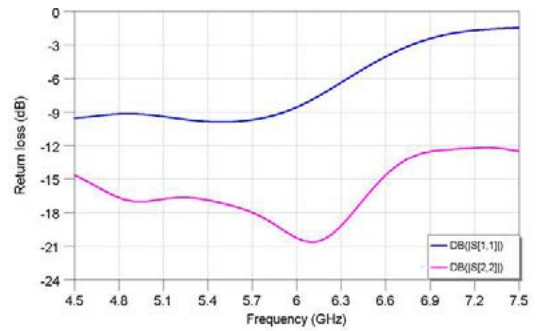
Standard Male Micro D Connector (Metal Shell)
FRONT VIEW - CONNECT SIDE

TYPICAL MEASURED DATA

Gain & Noise variation at 11 K



Input & output return losses at 11 K



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OPTIONS

- * Servo-controlled power supply unit

CELESTIA TTI
sales@tinorte.es
www.tinorte.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.