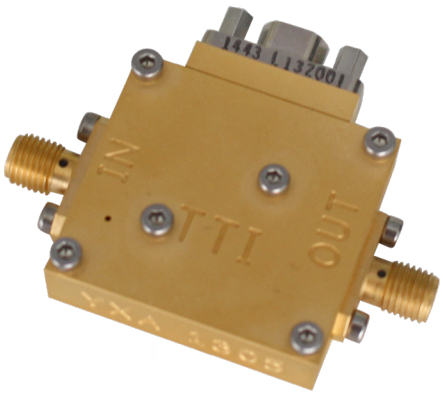
X band Cryo-LNA range for radioastronomy & quantum computing



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.

RF performance

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

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

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Technical specifications

X band Cryo LNA

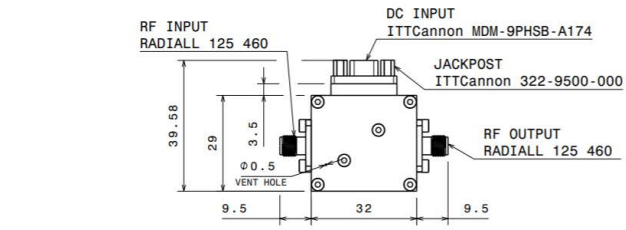
4-12 GHz

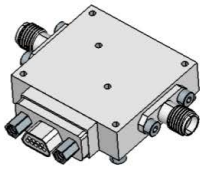
6.5 K

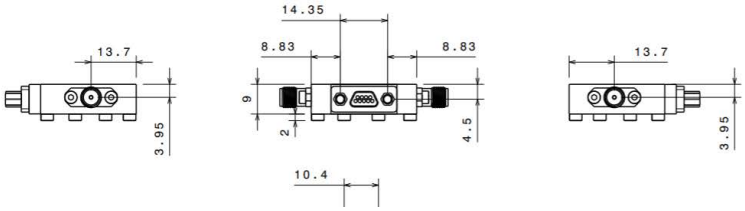
OPTIONS

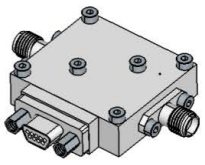
* Servo-controlled power supply unit

Outline drawing



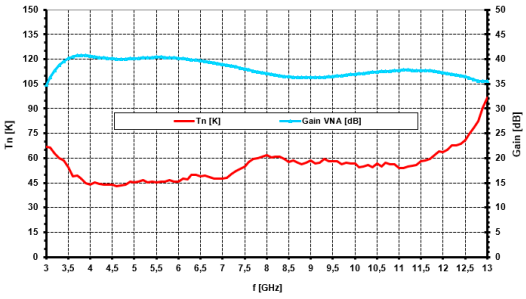




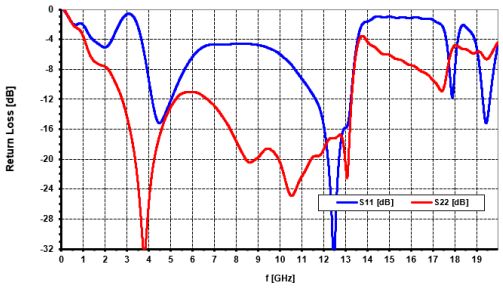


Typical measured data

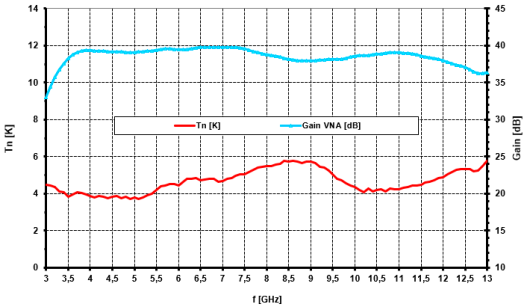
Gain & Noise variation at 295 K



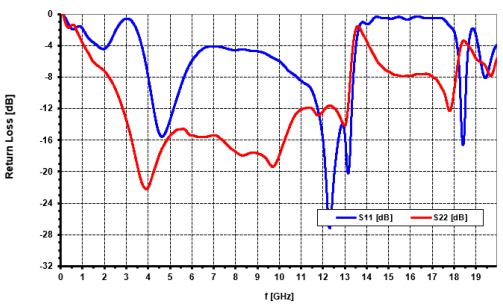
Input & output return losses at 295 K



Gain & Noise variation at 12 K



Input & output return losses at 12 K



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

Unless otherwise specifications, tests have been done at 23 ºC.