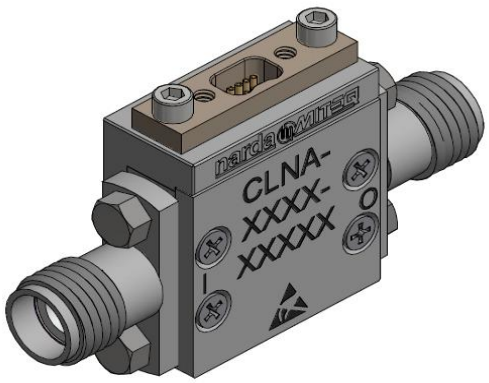
CLNA-30-0400-1200-5P-ND

Revision 1.0



FEATURES

- Ultra Low Noise Performance
- Low DC Power Consumption
- Operational Down to 4 Kelvin
- RoHS Compliant
- RF Ports Matched to 50 Ohms

TYPICAL APPLICATIONS

- Quantum Computing
- Radio Astronomy
- Deep Space Communication
- Satellite Communications
- SIGINT
- Low Temperature Physics

ELECTRICAL SPECIFICATIONS (@ 4K)

Parameter	Min	Max	Typ	Units
Frequency Range	4.0	12.0	-	GHz
Noise Temperature*	-	10	7	K
Gain (S21)	30	-	35	dB
Gain Flatness	-	2.0	1.2	± dB
Output Power @ 1dB Compression Point (P1dB)	-5	-	0	dBm
Input VSWR (S11)	-	2.0	1.8	-
Output VSWR (S22)	-	2.0	1.8	-
DC Supply Voltage	+0.3	+0.4	+0.35	VDC
DC Supply Current	5.3	7.5	6.4	mA
DC Power Consumption	1.6	3.0	2.2	mW

*Noise Temperature below 5 GHz is 12 K max

Absolute Maximum Ratings

Parameter	Rating
DC Supply Voltage	+1 V
RF Input Power	+10 dBm
Operating Temperature	4K to +75°C
Non-Operating Temperature	4K to +105°C
RF Port Coupling (In/Out)	DC Coupled / DC Coupled

Mechanical Specifications

Parameter	Value
Length	0.45 in [11.4 mm]
Width	0.65 in [16.5 mm]
Height	0.30 in [7.6 mm]
Connectors (In/Out)	SMA(F) / SMA(F)
Approx. Weight	7.8 g

The material presented in this datasheet was current at the time of publication. Narda-MITEQ's continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

This material consists of Narda-MITEQ general capabilities information and does not contain controlled technical data as defined within the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11. D-405/05.01.18

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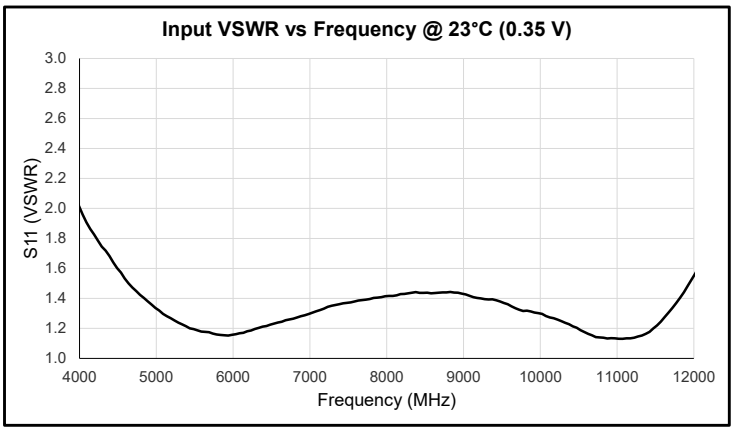
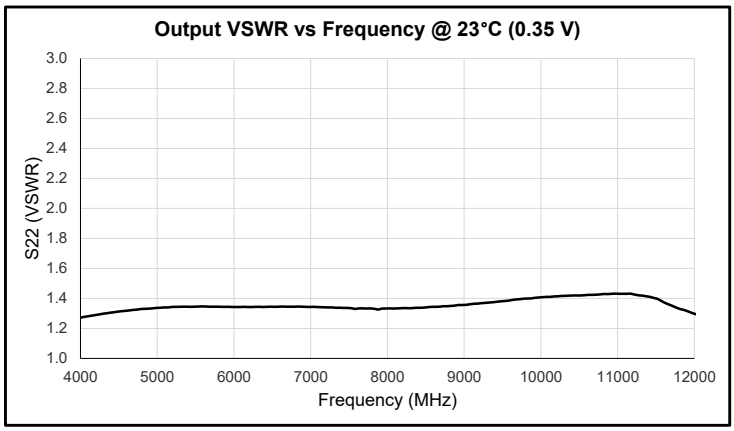
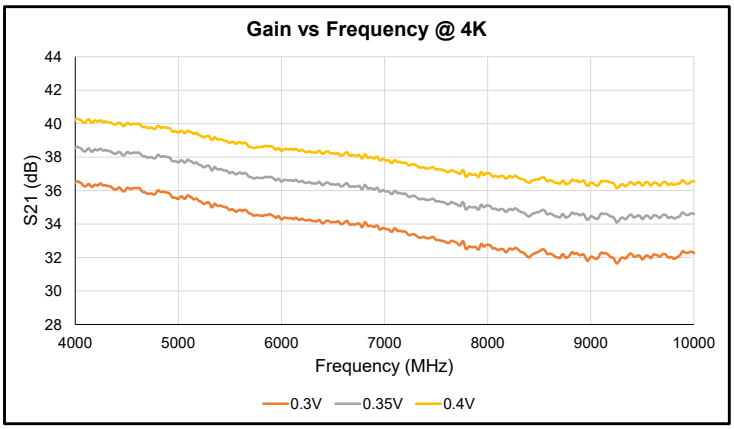
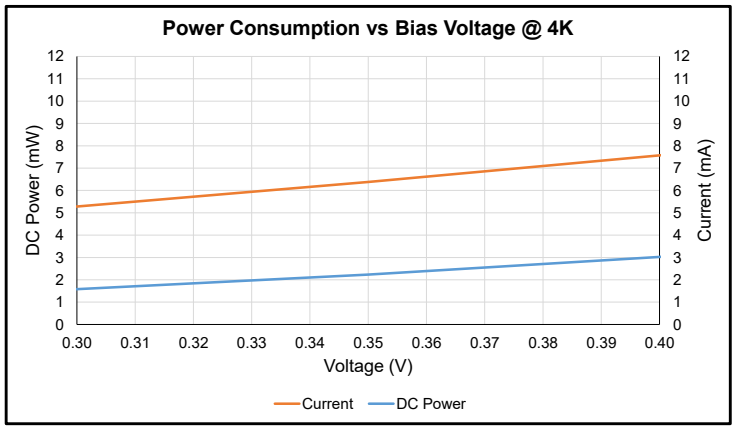
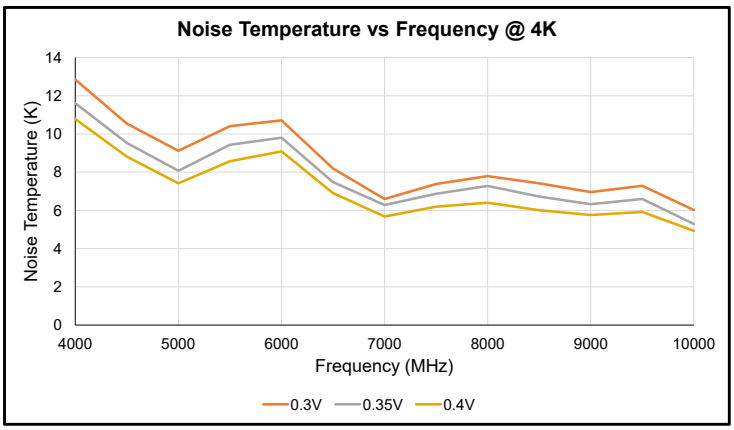
Typical Performance:

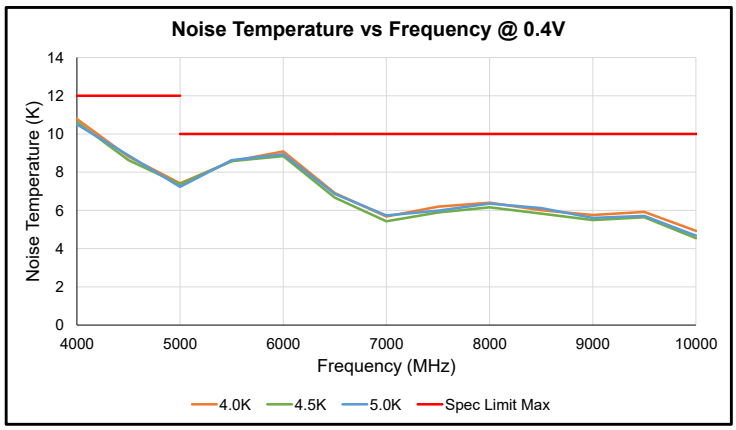












Environmental Specifications		
Parameter	**Standard**	**Description**
Operational Temperature		4K to +75°C
Storage Temperature		4K to +105°C
Random Vibration	MIL-STD-883K, Method 2026, Cond. 1B	50 - 2000 Hz, 7.3 Grms
Humidity	MIL-STD-202, Method 103B, Cond. B	95% RH Non-Condensing
Altitude	MIL-STD-883K, Method 1001, Cond. B	30,000 ft
This amplifier is designed to meet the above conditions. If ESS testing is required please contact factory.		

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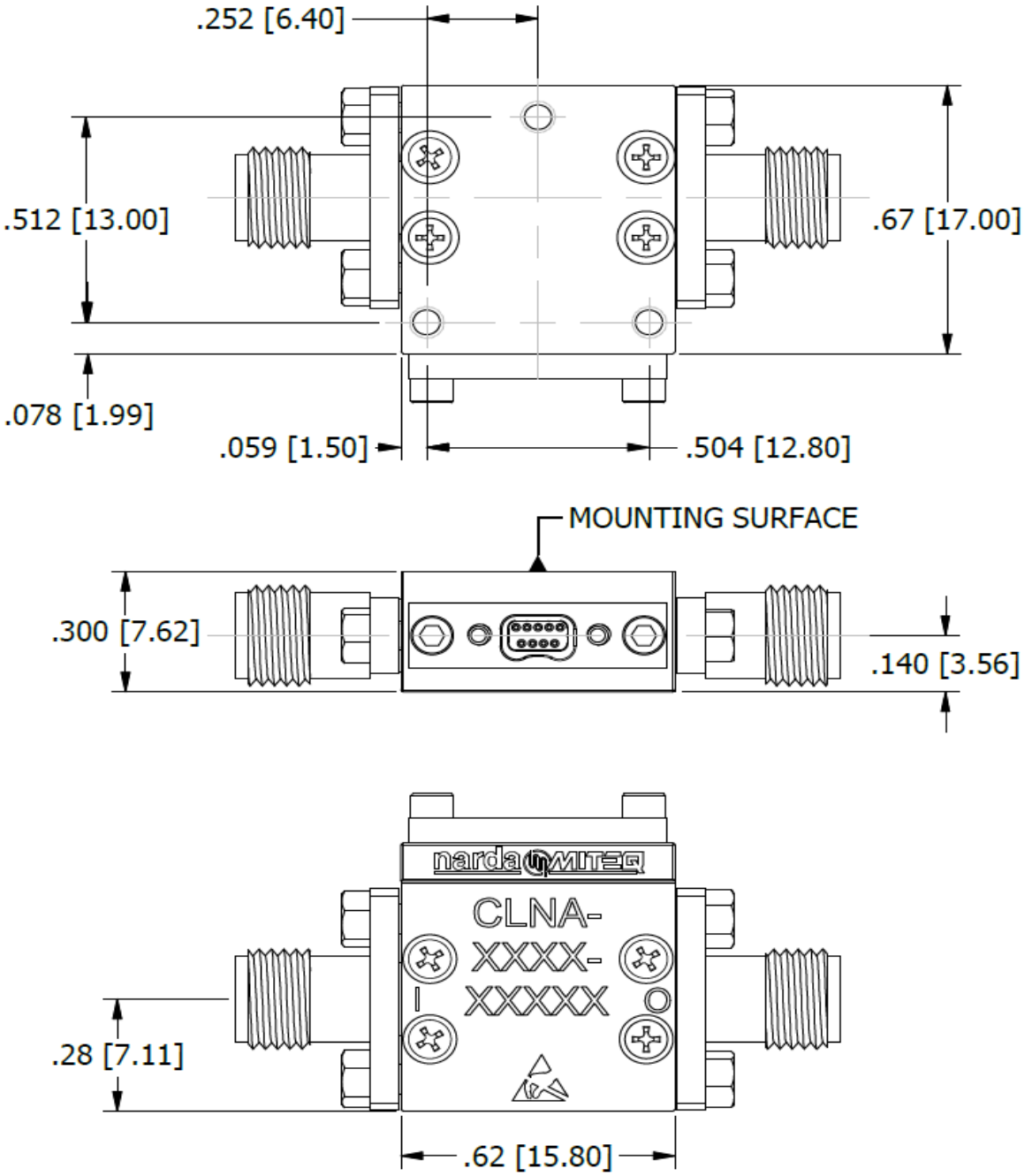

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