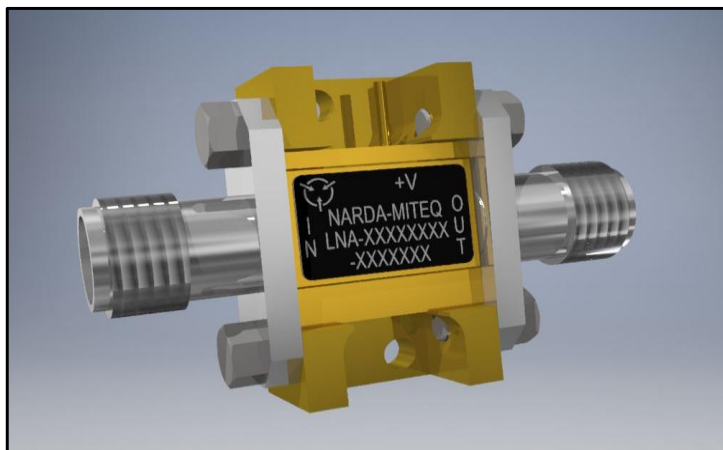




FEATURES

- Unconditional Stability
- RF Ports Matched to 50 Ohms
- Internal DC Voltage Regulation
- Reverse Polarity Protection
- RoHS Compliant
- Hermetically Sealed Kovar Package

TYPICAL APPLICATIONS

- Wireless Infrastructure
- RF Microwave and VSAT
- Military and Aerospace
- Test Instruments
- Fiber Optics

ELECTRICAL SPECIFICATIONS (@ 23°C)

Parameter	Min	Max	Typ	Units
Frequency Range	18.0	40.0	-	GHz
Noise Figure ¹	-	2.8	2.4	dB
Gain (S21)	30	-	36	dB
Gain Flatness	-	3.0	2.6	± dB
Output Power @ 1dB Compression Point (P1dB)	+10	-	+11	dBm
Input VSWR (S11)	-	2.5	2.3	-
Output VSWR (S22)	-	2.5	2.0	-
DC Supply Voltage	+12	+18	+15	VDC
DC Supply Current ²	-	300	210	mA

¹Noise Figure max for 20 dB gain models are 2.9 dB

²See page 3 for current specs of other Gain and P1dB models

Absolute Maximum Ratings

Parameter	Rating
DC Supply Voltage	+20 V
RF Input Power	+13 dBm
Operating Temperature	-55°C to +85°C
Non-Operating Temperature	-65°C to +125°C
RF Port Coupling (In/Out)	DC Coupled / AC Coupled

Mechanical Specifications³

Parameter	Value
Length	0.43 in [11.0 mm]
Width	0.74 in [18.7 mm]
Height	0.30 in [7.6 mm]
Connectors (In/Out)	K(F) / K(F)
Approx. Weight	8.6 g

³Dimensions shown for 20 and 30 dB Gain Models, see page 4 for 40 dB Models

The information above is relative to the sale of a COTS product as depicted. For information regarding other features available in this amplifier family, please review the ULNA Series Summary Sheet or contact your local representative for specific inquiries.

[ULNA Series Summary Sheet](#)

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

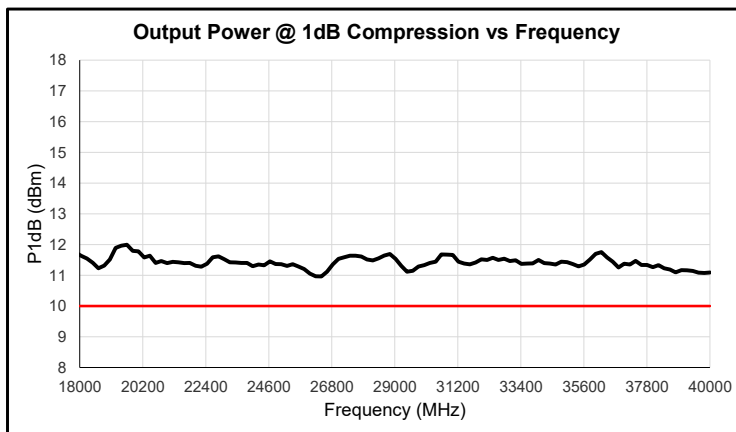
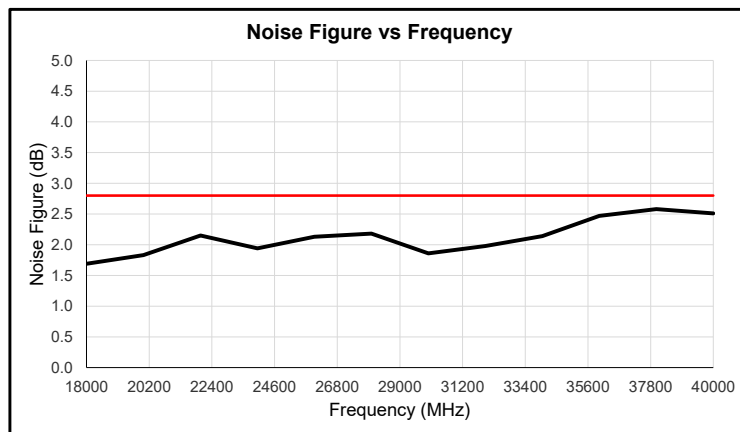
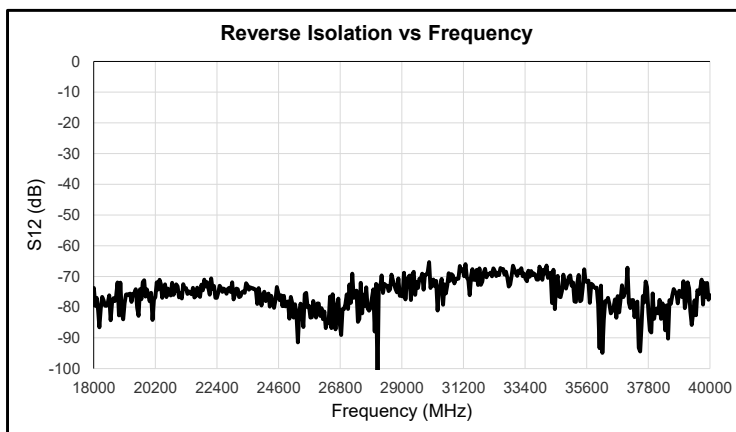
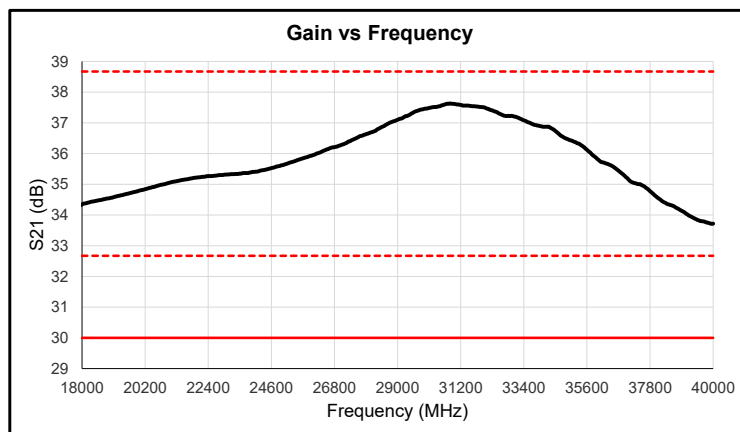
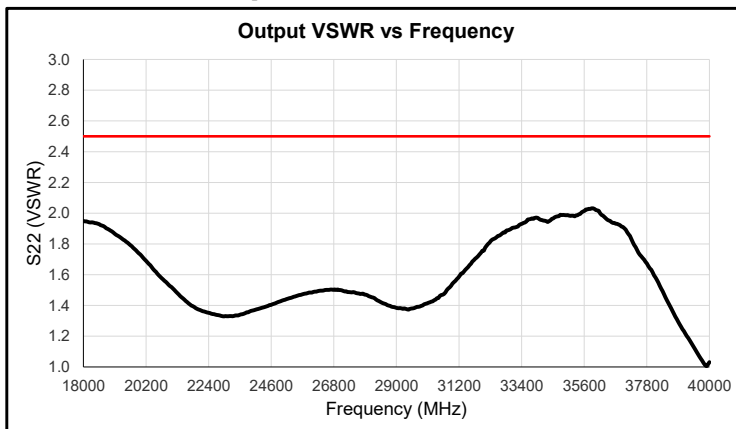
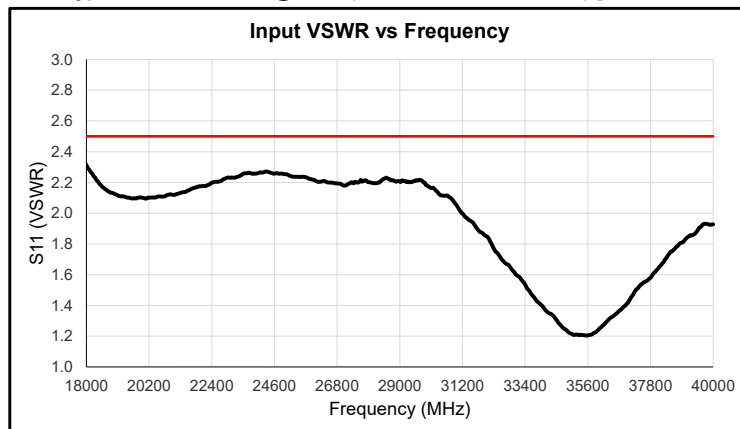
narda  **MITEQ**

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www.nardamiteq.com



Typical Performance @ 23°C (Reference S/N 2332804) [30 dB Gain, +10 dBm P1dB Model Shown]



S2P file may be available upon request

Environmental Specifications		
Parameter	Standard	Description
Operational Temperature		-55°C to +85°C
Storage Temperature		-65°C to +125°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. C	50,000 ft

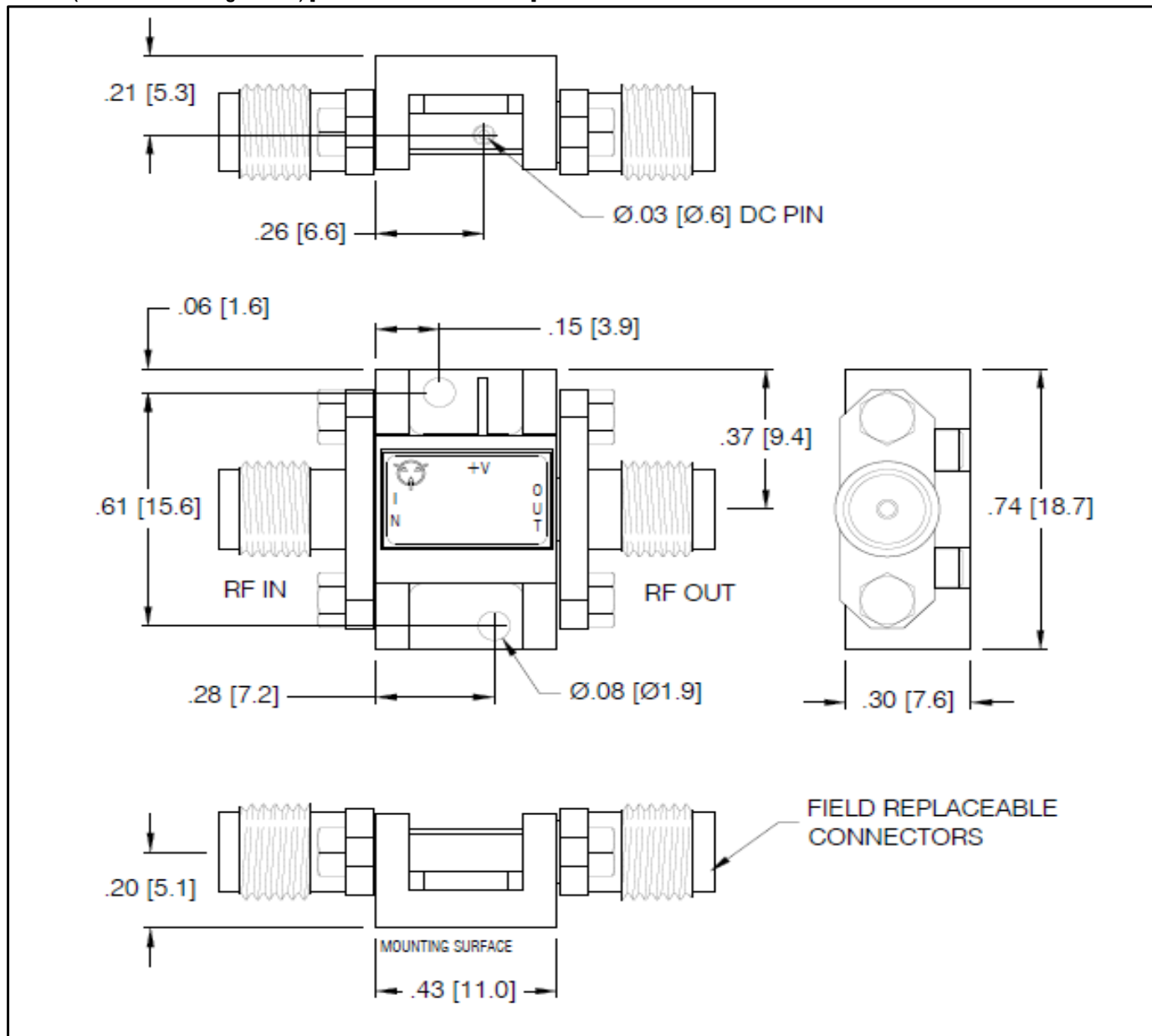
This amplifier is designed to meet the above conditions. If ESS testing is required please contact factory.

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Outline (Reference Drawing 128749) [20 and 30 dB Gain Models]



STEP file may be available upon request

Ordering Information⁴

U L N A - 3 0 - 1 8 0 0 - 4 0 0 0 - 1 0 P

Gain (dB) Start - Stop Frequency (GHz) P1dB (dBm)

Available Gains: 20, 30 or 40 dB Minimum

Available P1dBs: +5, +10 or +15 dBm Minimum

Available Options: Adds One or More Suffixes

Option	Description	Option	Description
-L	Input Limiter	-XXV	Specific Operating Voltage
-GW	Gain Window	-PG	Gain and Phase Tracking
-BTO	Bias Through Output	-S	Combine 3 or More Options
-TC	Temperature Compensation	Connector Options (Input / Output)	
-AM	Amplitude Matching	-MF	Male / Female
-PM	Phase Matching	-FM	Female / Male
-APM	Amplitude and Phase Matching	-MM	Male / Male
-H	Hermetic (Includes Leak Test)	No Dash	Female / Female

Max Current Spec Table		Min P1dB (dBm)			
		+5	+10	+15	
Min Gain (dB)	20	260	280	360	
	30	280	300	380	
	40	300	320	400	

⁴Other Gains and P1dBs may be available upon request. However, certain combinations of Gain, P1dB and/or other options may not be compatible

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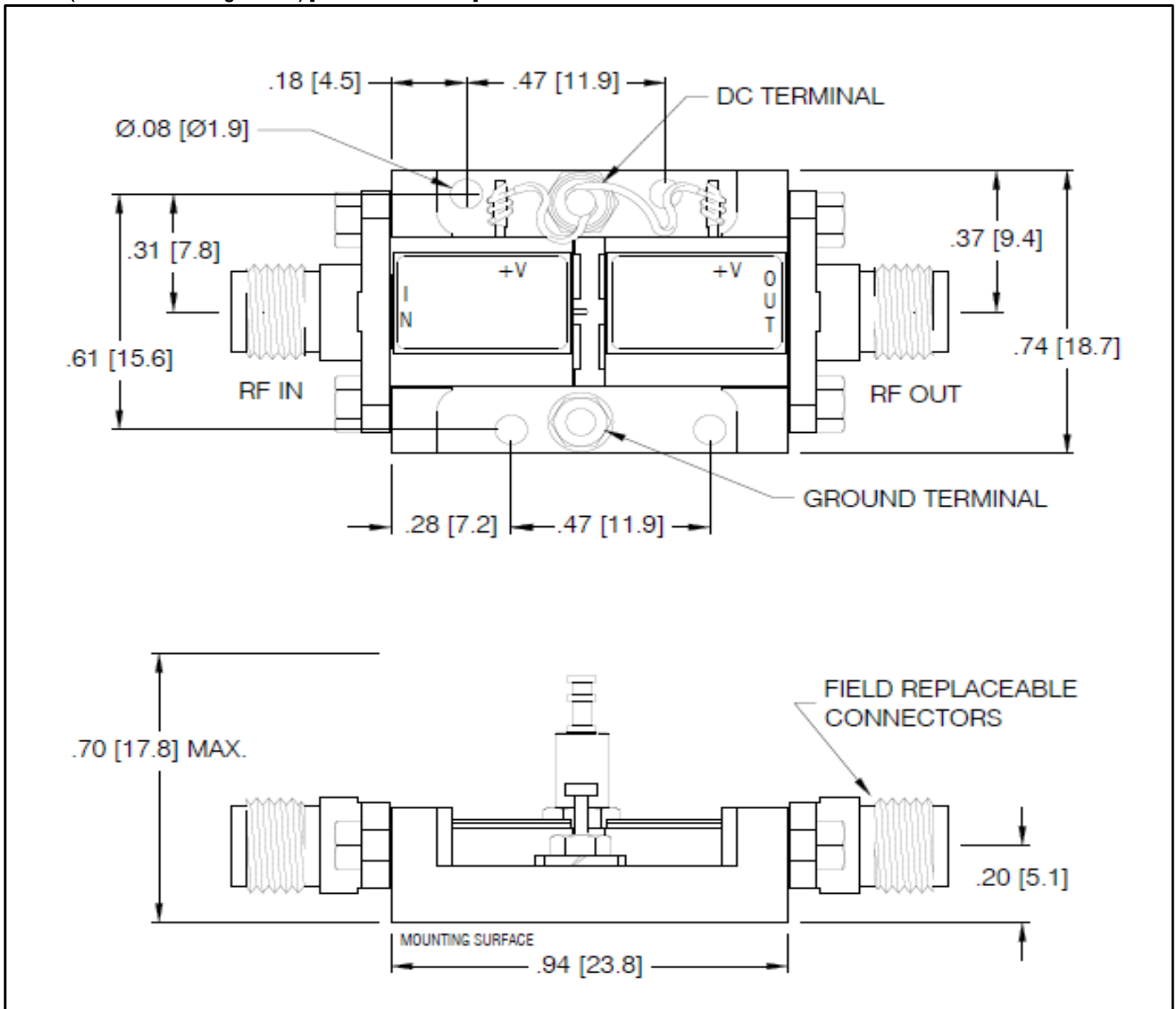
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Fax : 631-231-1711

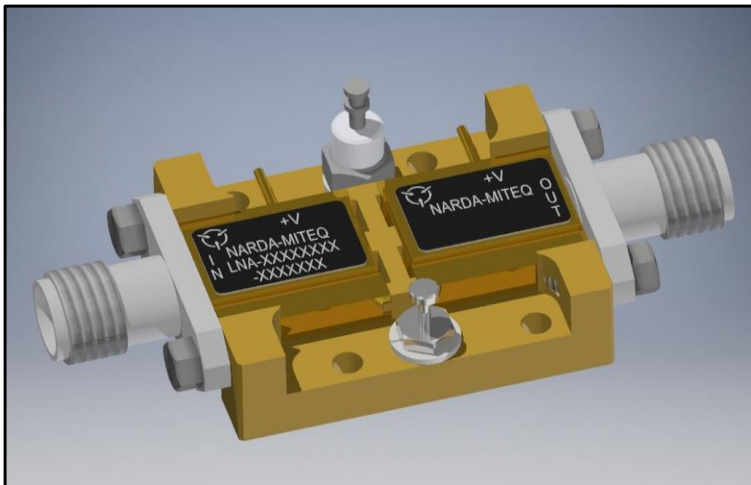
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Outline (Reference Drawing 129007) [40 dB Gain Models]



STEP file may be available upon request



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