



### Main Features:

- Frequency Range: 3.4 to 4.7 GHz.
- Typical values: Gain 13 dB, NF 2 dB
- RF connectors (I/O): SMA
- Solder filtered pins for DC connection
- Several mounting options
- Gold plated compact aluminum housing
- Hi-reliability and dedicated screening/ environmental tests available under request

### ERZ-LNA-0340-0470-13-2

The ERZ-LNA-0340-0470-13-2 is a Low Noise Amplifier providing a gain of 13 dB with a noise figure of 2 dB. The compact size and modularity makes it ideal for a wide range of applications.

### Typical applications:

- Industrial / Laboratory
- Satcom / Telecom
- Space / Aerospace / Military

### Performance

Parameter	Value			Units
	Min	Typ	Max	
Frequency	3.4	-	4.7	GHz
Output Power (P1dB)	18.1	18.2	18.3	dBm
Output Power (Psat)	19.2	19.5	19.7	dBm
Gain	13.4	13.6	13.8	dB
Noise Figure	1.6	1.7	2.0	dB
VSWR input	1.1:1	1.5:1	1.8:1	-
VSWR output	1.1:1	1.2:1	1.2:1	-
DC Voltage	9	12	15	V
Power Consumption	-	0.3 @Small signal 0.8 @Psat	-	W
Connectors	SMA Female IN/OUT			-

Specifications at a case temperature of 25°C

### Output Power at 1 dB Compression

Figure 1 shows output power at 1dB compression measurement as a function of frequency at room temperature (25°C).

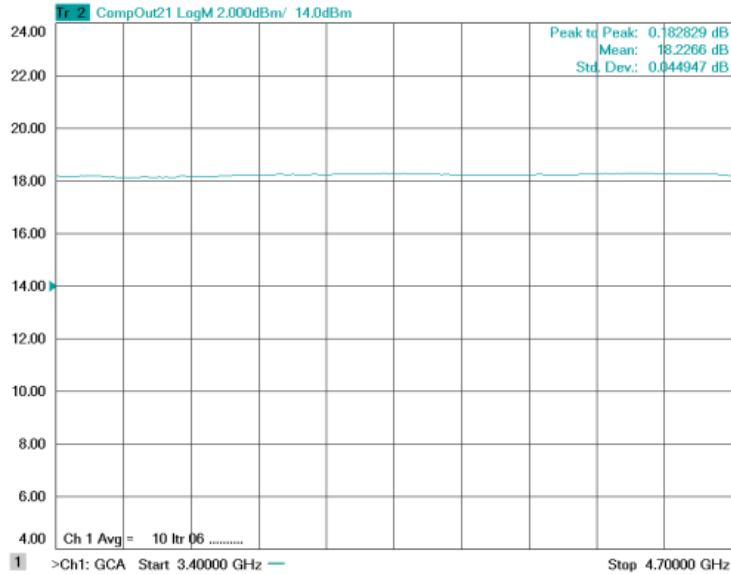


Figure 1: ERZ-LNA-0340-0470-13-2 P1dB

### Small Signal Gain

Figure 2 shows the small signal gain measurement as a function of frequency at room temperature (25°C).

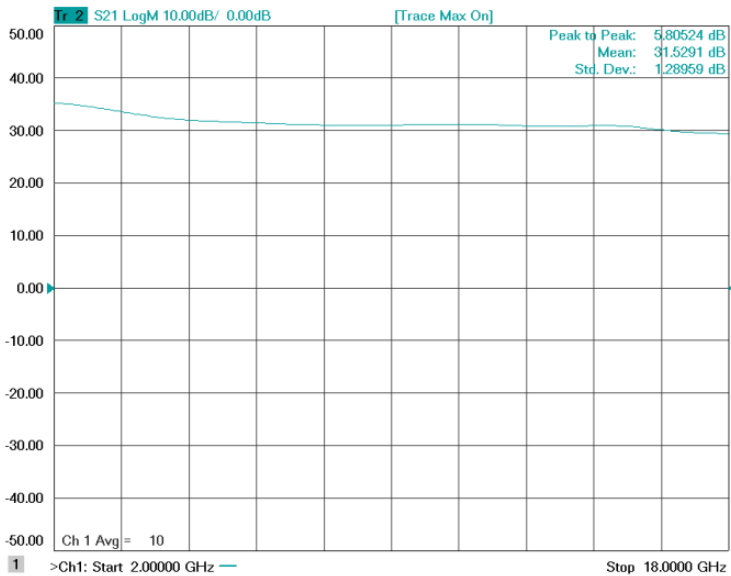


Figure 2: ERZ-LNA-0340-0470-13-2 Small Signal Gain

### Noise Figure

Figure 3 shows the noise figure measurement as a function of frequency at room temperature (25°C).

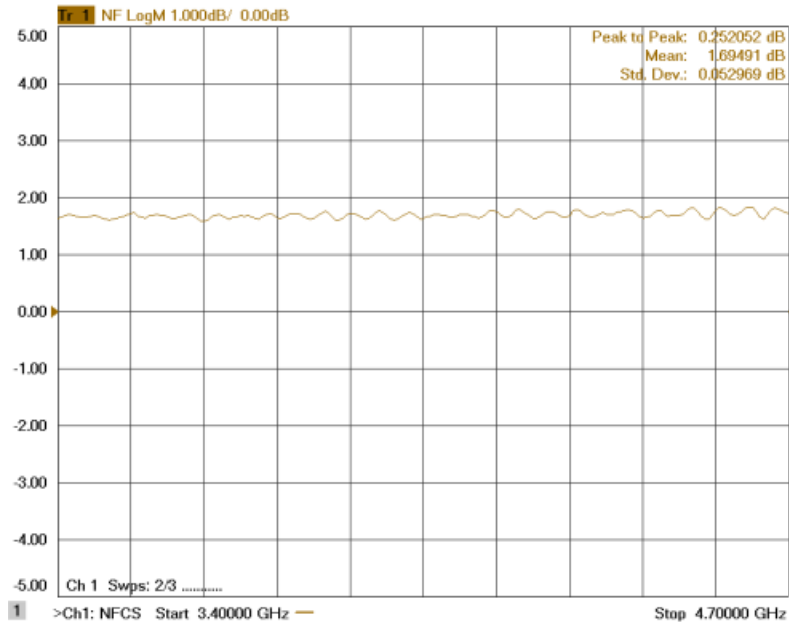


Figure 3: ERZ-LNA-0340-0470-13-2 Noise Figure

### Input and Output Matching

Figure 4 and Figure 5 show input (S11) and output (S22) VSWR as a function of frequency at room temperature (25°C).

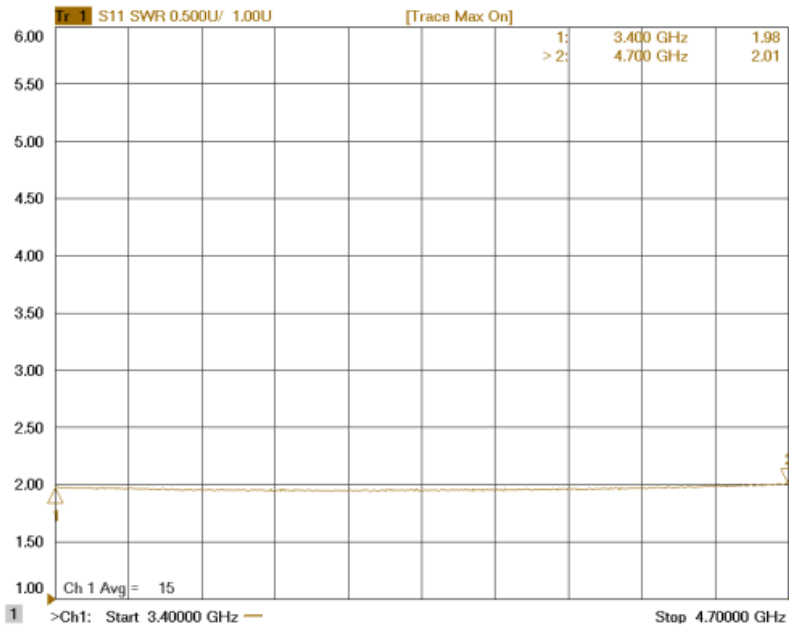


Figure 4: ERZ-LNA-0340-0470-13-2 Input Matching

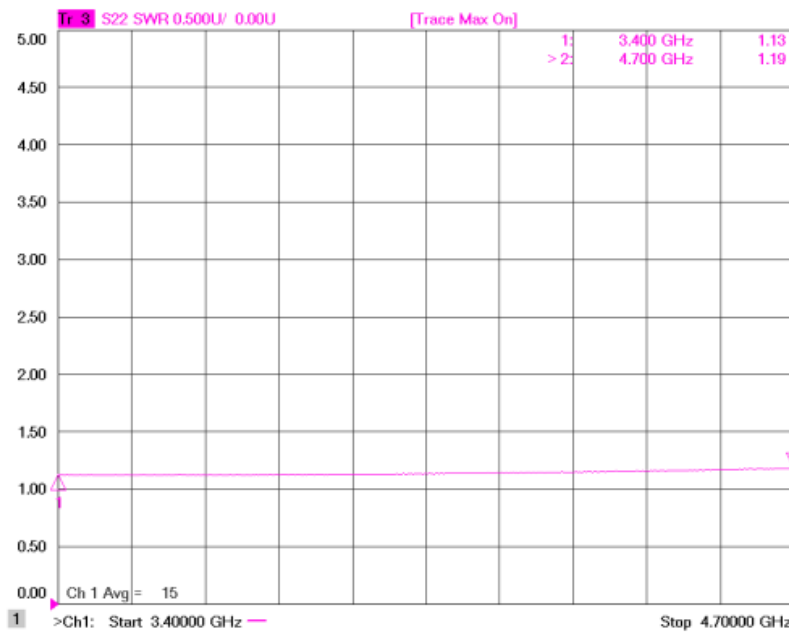


Figure 5: ERZ-LNA-0340-0470-13-2 Output Matching

### Measurements Conditions

All measurements provided in this report were performed at the following conditions:

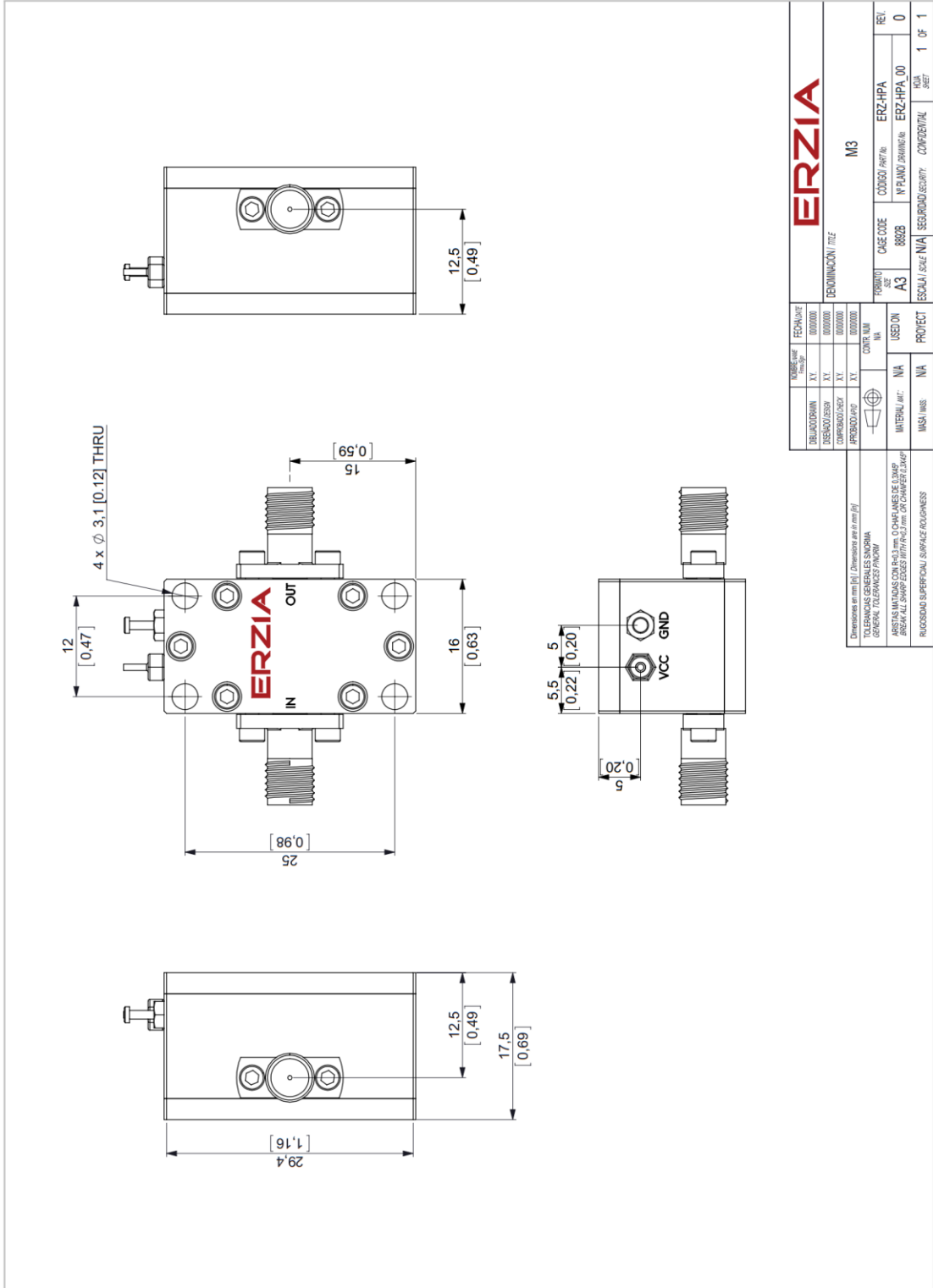
Condition	Value
Temperature	25°C ± 1°C
Humidity	70% ± 10%
DUT Warm up time	30 min
Test equipment warm up time	1 hour

### Absolute Maximum Ratings

Condition	Value
DC Voltage	+15 VDC
Maximum Input Power (CW)	15 dBm
Operation temperatura (at case)	-35°C to 75°C
Storage temperature	-55°C to 125°C

- Stress above these ratings may cause permanent damage to the device.
- It is final user responsibility to maintain the amplifier within the specified ranges.

### Mechanics and Housing



FECHA/DATE		M3	
NUMERO/NO.		M3	
TOLERANCIAS	XY	000000	
TOLERANCIAS	XY	000000	
TOLERANCIAS	XY	000000	
TOLERANCIAS	XY	000000	
TOLERANCIAS	XY	000000	
CONT. N/A		M3	
USED ON		ERZ-LNA	
INTERVAL		A3	
M3		ERZ-LNA	
M3		ERZ-LNA	

Dimensiones en mm (in) / Dimensiones en mm (in)

TOLERANCIAS GENERALES SIN OTRA INDICACION GENERAL TOLERANCIAS EN mm (in)

ARISTAS MUY FINAS CON R=0.3 mm, 0.0125 INCHES, 0.315 MP

AREAS DE CONTACTO CON R=0.3 mm, 0.0125 INCHES, 0.315 MP

RUGOSIDAD SUPERFICIAL: SURFACE ROUGHNESS

DENOMINACION / TITLE		M3	
CODIGO PART/No		ERZ-LNA	
Nº PLANO DRAWING No.		ERZ-LNA_00	
REVISION		0	
SEC		A3	
SECUNDARIA/SECURITY		CONFIDENTIAL	
M3		M3	
M3		M3	

## Documentation and Test Reports

All modules are at least delivered with: Electrical Test Report, Certificate of Conformance, Certificate of Acceptance and Origin. Optionally, units can be environmentally tested (temperature, vibration...).

## Option (HS): Heat Sink

A heat sink (HS) can be provided to allow the operation of Power Amplifiers. Please note that most power amplifiers need heat sink or appropriate heat dissipation strategy.

## Space / Military Usage

Most of ERZIA's products are based on rad-hard technologies and can be manufactured and integrated according to MIL / ECSS or specific hi-rel standard-screening for space, aeronautics, military or specific hi-reliability usage.

## Customization and Extended Performances

ERZIA can fully design or adapt one of the existing RF amplifiers designs according to your specifications. Please contact us for additional information.

## Model Number Codification

### MODEL NUMBER



# ERZIA

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