



### Main Features:

- Frequency Range: 75 to 83 GHz.
- Typical values: P1dB 24 dBm, Gain 17 dB
- RF connectors (I/O): WR12
- 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-HPA-7500-8300-27

The ERZ-HPA-7500-8300-27 is an E Band High Power Amplifier providing 24 dBm and a gain of 17 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	75	-	83	GHz
Output Power (P1dB)	21	24	27	dBm
Small Signal Gain	15	17	20	dB
Gain Flatness	-	±2	-	dB
Noise Figure	-	-	-	dB
VSWR input	1.2:1	1.5:1	2.2:1	-
VSWR output	1.2:1	1.8:1	2.3:1	-
DC Voltage	8	12	16	V
Power Consumption	-	9	-	W
RF Connectors	WR12 IN/OUT			-

Specifications at 12V 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).

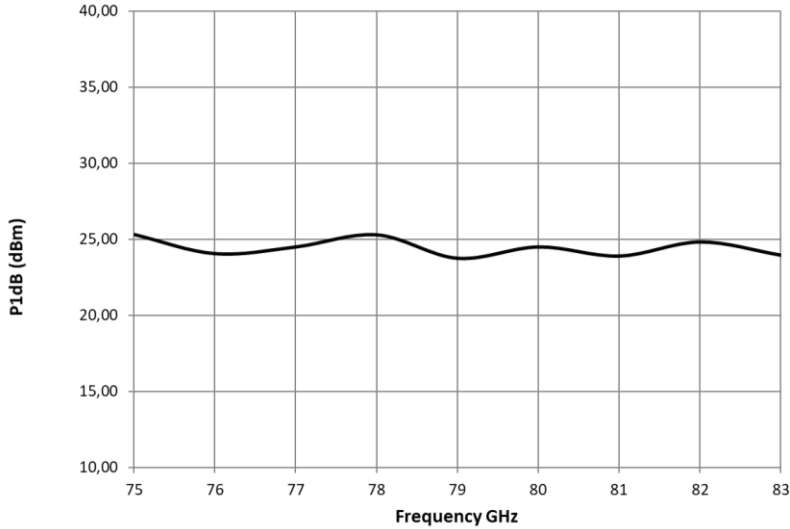


Figure 1: ERZ-HPA-7500-8300-27 P1dB

### Small Signal Gain

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

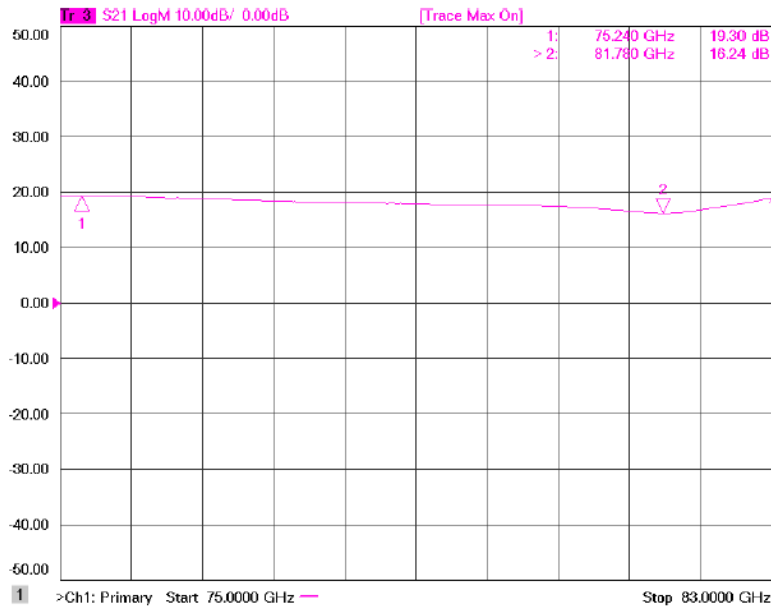


Figure 2: ERZ-HPA-7500-8300-27 Small Signal Gain

### Input and Output Matching

Figure 3 and Figure 4 show input (S11) and output (S22) VSWR as a function of frequency at room temperature (25°C).

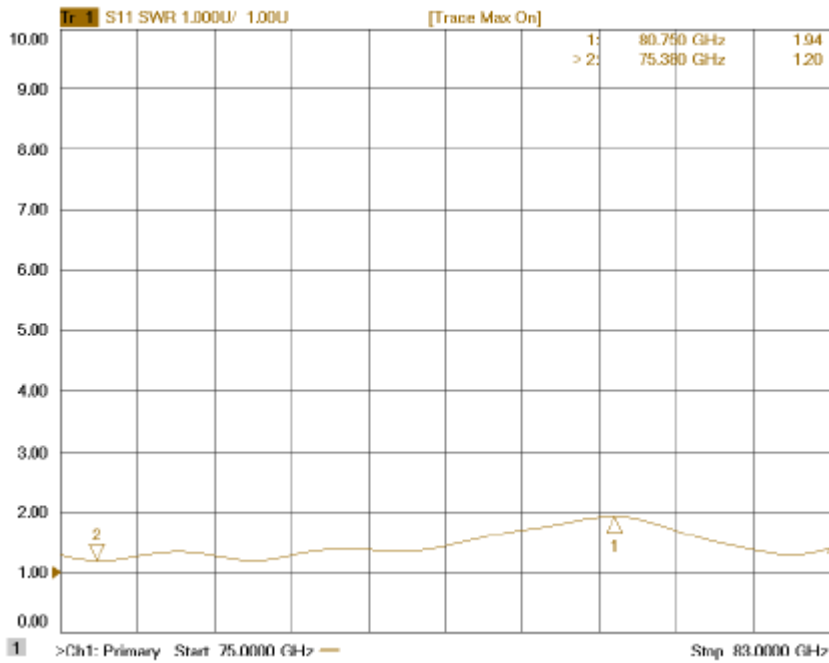


Figure 3: ERZ-HPA-7500-8300-27 Input Matching

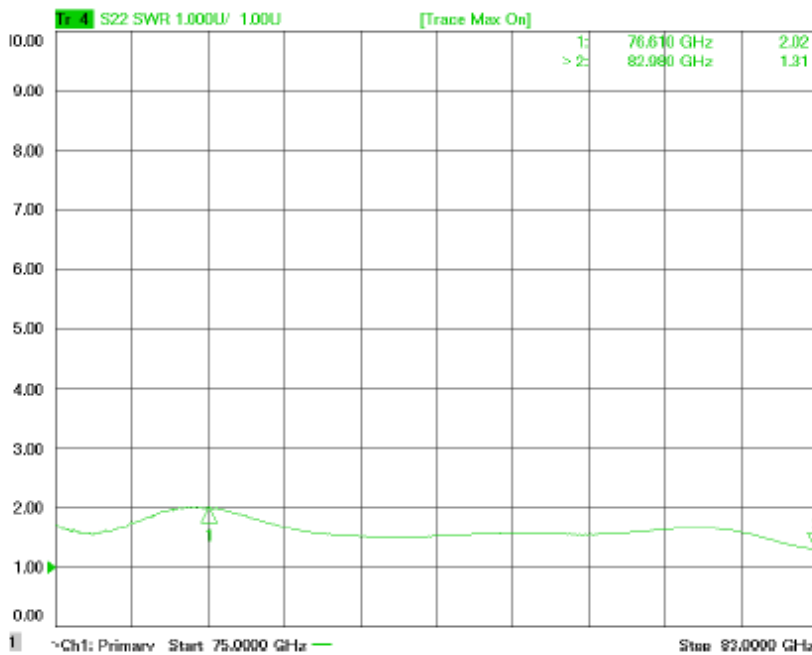


Figure 4: ERZ-HPA-7500-8300-27 Output Matching

### Measurements Conditions

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

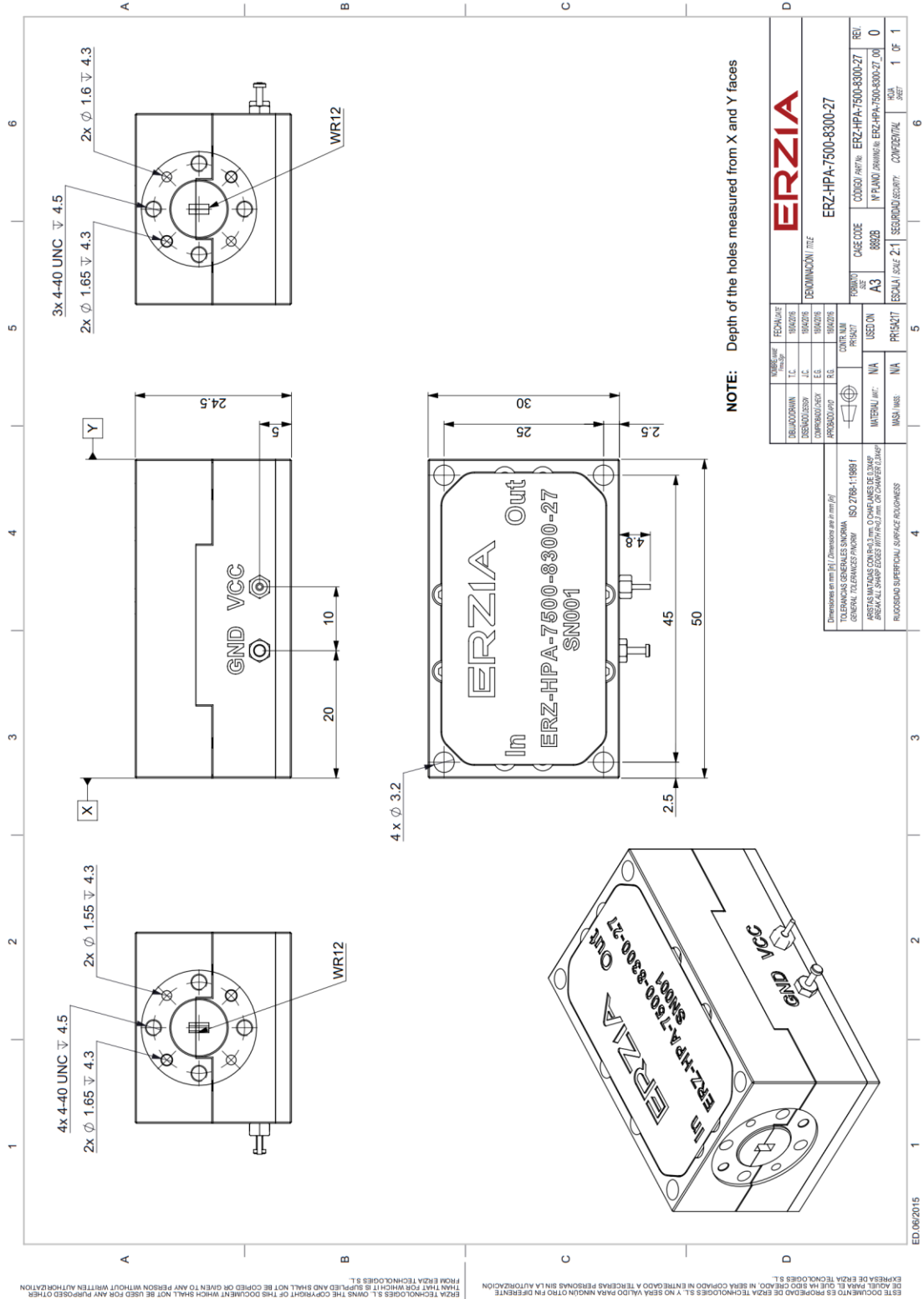
Condition	Value
Temperature	25°C ± 1°C
Humidity	70% ± 10%
DUT Warm up time	30 min
Test equipment warm up time	1 hour

### Absolute Maximum Ratings

Condition	Value
DC Voltage	16 VDC
Maximum Input Power (CW)	13 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



ESTE DOCUMENTO ES PROPIEDAD DE ERZIA TECHNOLOGIES S.L. NO SE VA A VALOR PARA NINGUNA OTRO FIN. PRESENTE ERZIA TECHNOLOGIES S.L. EN SU DISEÑO Y CONSTRUCCIÓN. ERZIA TECHNOLOGIES S.L. NO SE VA A VALOR PARA NINGUNA OTRO FIN. PRESENTE ERZIA TECHNOLOGIES S.L. EN SU DISEÑO Y CONSTRUCCIÓN. ERZIA TECHNOLOGIES S.L. EN SU DISEÑO Y CONSTRUCCIÓN.

## 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

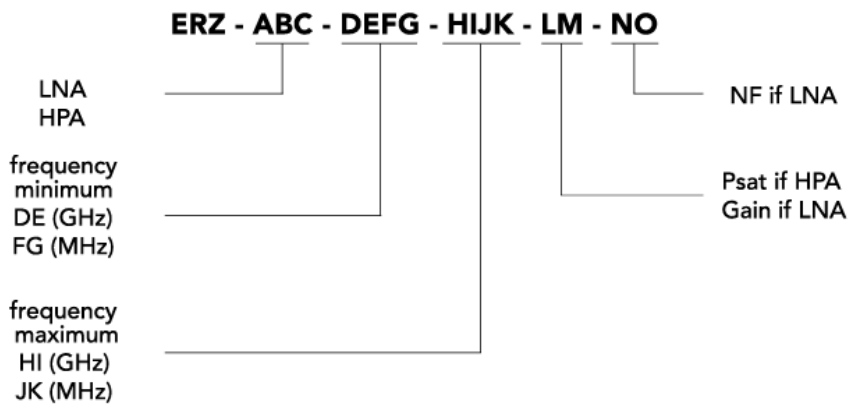
Most of ERZIA's products are based on rad-hard technologies and can be manufactured and integrated according to MIL / ECSS or specific hi-rel standard-screening for space, aeronautics, military or specific hi-reliability usage.

## 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

20160613\_rev1.1

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Tel: +34 942 29 13 42

[sales@erzia.com](mailto:sales@erzia.com)

[www.erzia.com](http://www.erzia.com)