



### Main Features:

- Frequency Range: 41 to 46 GHz.
- Typical values: Psat 30 dBm, Gain 30 dB
- RF connectors (I/O): 2.4 mm / WR-22
- 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-4100-4600-30

The ERZ-HPA-4100-4600-30 is a High Power Amplifier providing an output power of 30 dBm and a gain of 30 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	41	-	46	GHz
Output Power (Psat)	28	29	30	dBm
Gain	28	30	35	dB
Noise Figure	-	-	-	dB
VSWR input	1.6:1	1.8:1	2.1:1	-
VSWR output	1.5:1	2.3:1	3.0:1	-
DC Voltage	5.5	5	6.5	V
Power Consumption	-	12	-	W
Connectors	2.4 mm IN / WR-22 OUT			-

Specifications at case temperature of 25°C

### Saturation Output Power

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

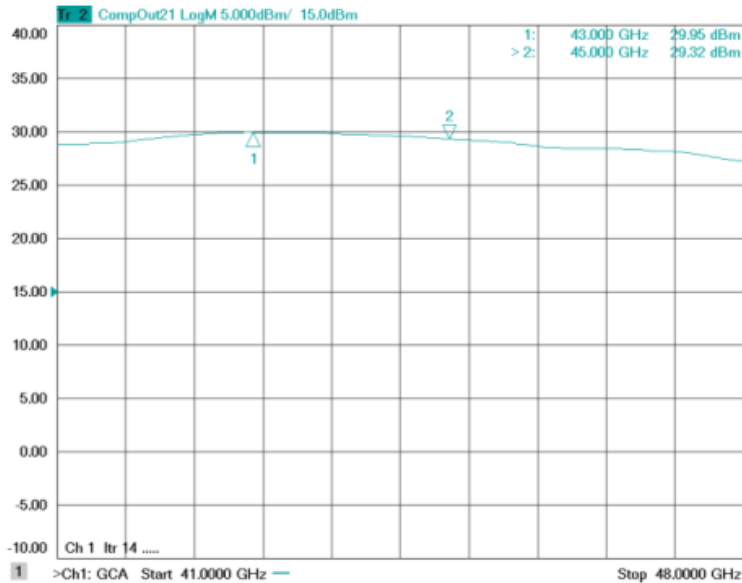


Figure 1-1: ERZ-HPA-4100-4600-30 Psat

### Small Signal Gain

Figure 1-2 shows small signal gain measurement as a function of frequency at room temperature (25°C).

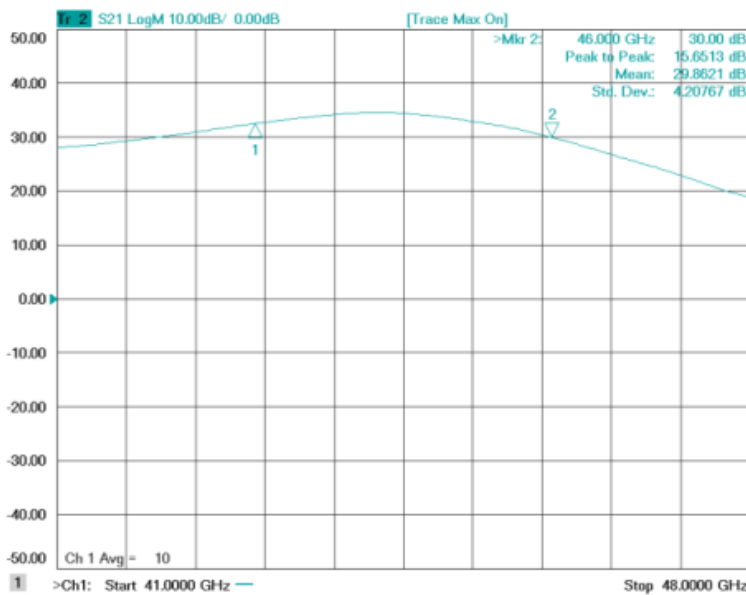


Figure 1-2: ERZ-HPA-4100-4600-30 Small Signal Gain

### Input and Output Matching

Figure 1-4 and Figure 1-5 show input (S11) and output (S22) VSWR as a function of frequency at room temperature (25°C).

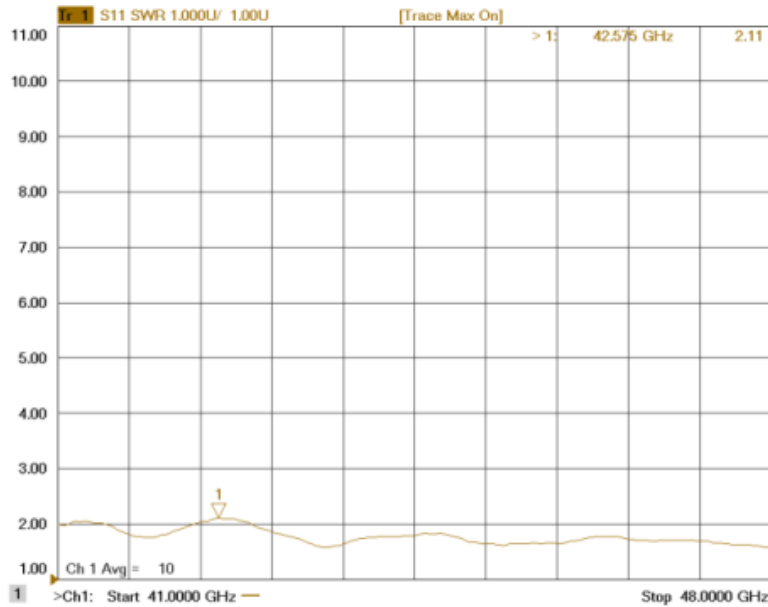


Figure 1-4: ERZ-HPA-4100-4600-30 Input Matching

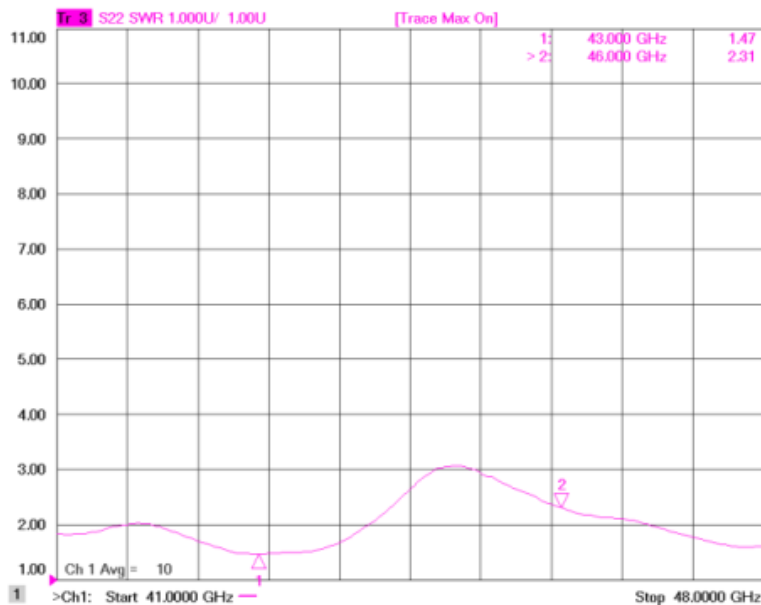


Figure 1-5: ERZ-HPA-4100-4600-30 Output Matching

### Measurements Conditions

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

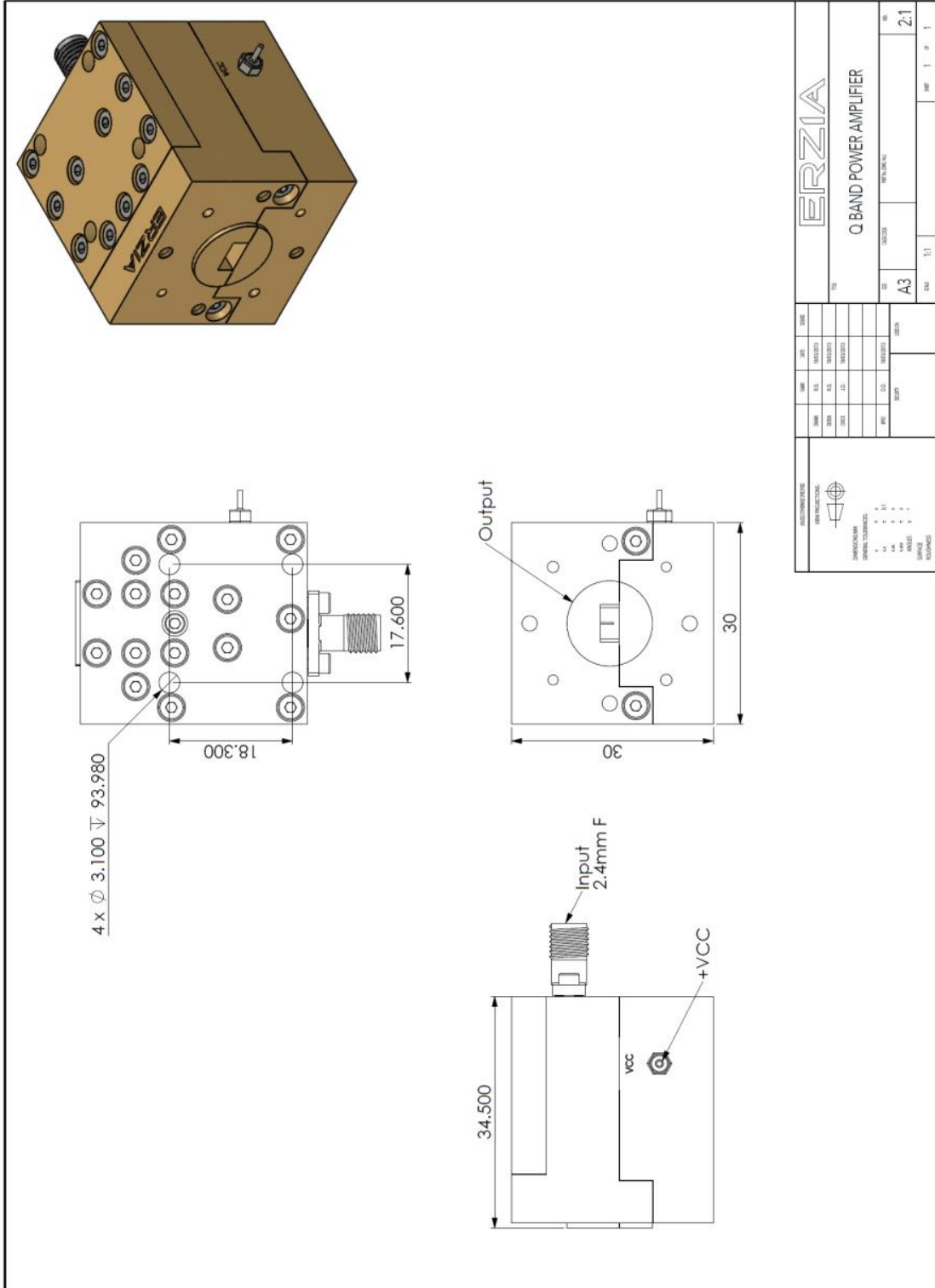
Condition	Value
Temperature	25°C ± 1°C
Humidity	70% ± 10%
DUT Warm up time	30 min
Test equipment warm up time	1 hour

### Absolute Maximum Ratings

Condition	Value
DC Voltage	+6.5 VDC
Maximum Input Power (CW)	6 dBm
Operation temperatura (at case)	-35°C to 50°C
Storage temperature	-50°C to 80°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



### 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

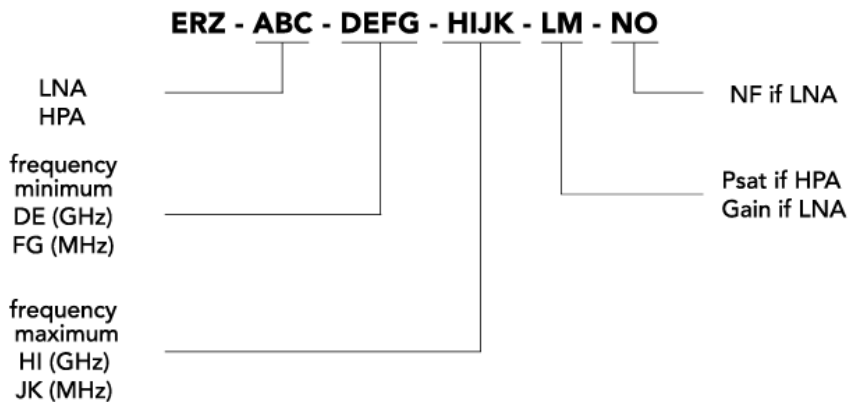
Most of ERZIA's products are based on rad-hard technologies and can be manufactured and integrated according to MIL / ECSS or specific hi-rel standard-screening for space, aeronautics, military or specific hi-reliability usage.

### 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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