



### Main Features:

- Frequency Range: 6 to 18 GHz.
- Typical values: Psat 40 dBm, Gain 45 dB
- RF connectors (I/O): SMA
- D-sub 9 connector for DC connection
- Several mounting options
- Gold plated compact aluminum housing
- Hi-reliability and dedicated screening/ environmental tests available under request

### ERZ-HPA-0600-1800-40

The ERZ-HPA-0600-1800-40 is a pulsed High Power Amplifier providing an output power of 40 dBm with a 10% duty cycle a gain higher than 45 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	6	-	18	GHz
Output Power (Psat) (10% duty cycle)	39.5	40	43	dBm
Gain	46	51	56	dB
Noise Figure	-	-	-	dB
VSWR input	1.2:1	1.5:1	2.3:1	-
VSWR output	1.1:1	1.5:1	2.0:1	-
DC Voltage	28	32	36	V
Power Consumption (@Psat)	-	85	-	W
Connectors	SMA Female IN/OUT			-

Specifications at a case temperature of 25°C

### Saturated Output Power

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

RF input signal characteristics:

- Pulse period: 100us
- Pulse width: 10 us

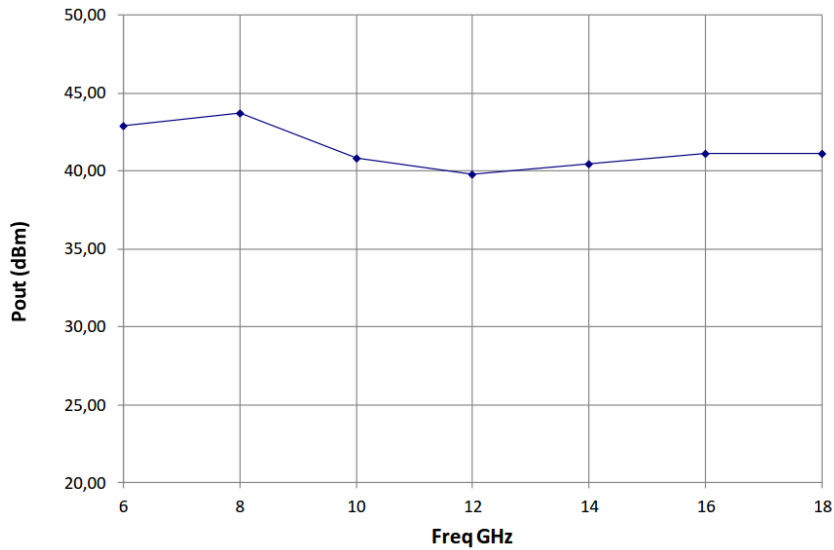


Figure 1: ERZ-HPA-0600-1800-40 Psat over frequency

Figure 2 shows output power (Psat) as a function of Input Power (Pin) at room temperature (25°C).

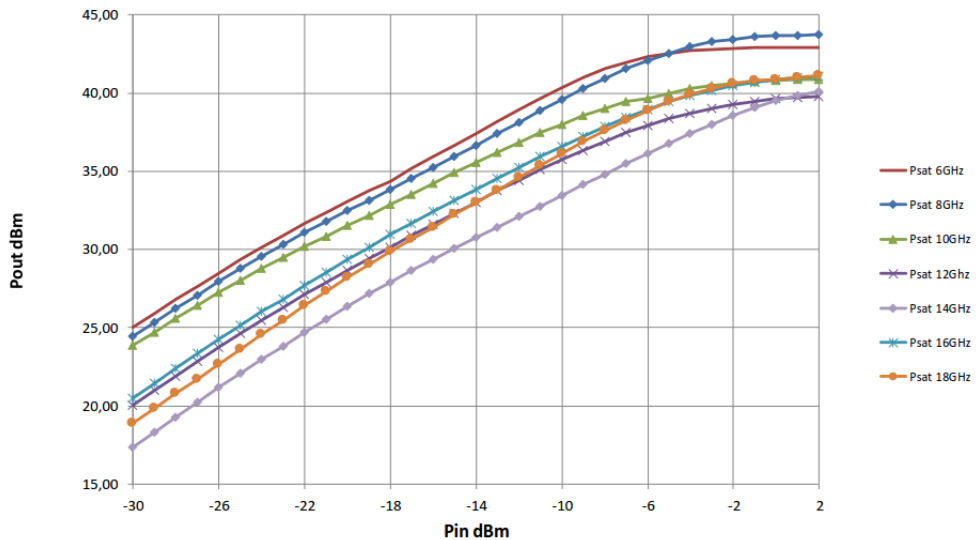


Figure 2: ERZ-HPA-0600-1800-40 Psat Vs Pin

### Small Signal Gain

Figure 3 shows the small signal gain measurement as a function of frequency at room temperature (25°C).

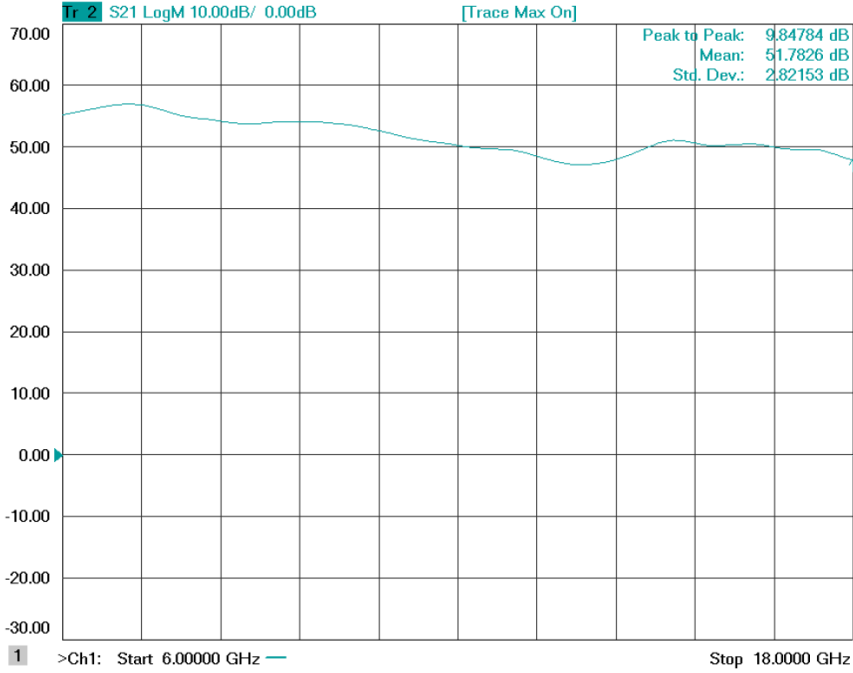


Figure 3: ERZ-HPA-0600-1800-40 Small Signal Gain

### 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).

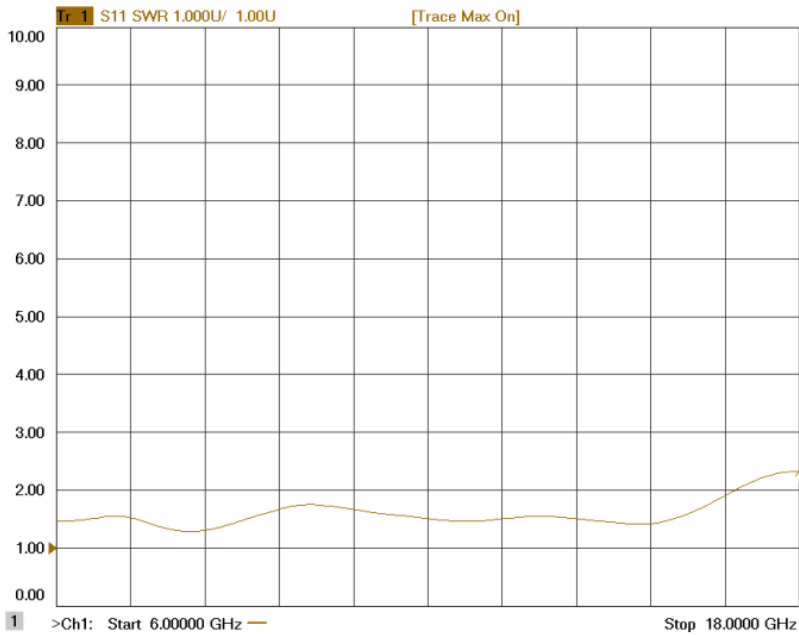


Figure 4: ERZ-HPA-0600-1800-40 Input Matching

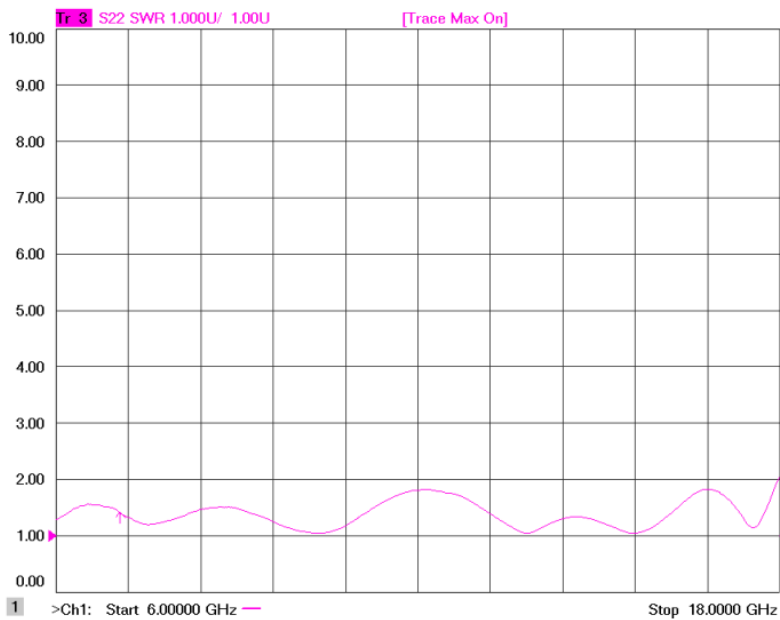


Figure 5: ERZ-HPA-0600-1800-40 Output Matching

### Measurements Conditions

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

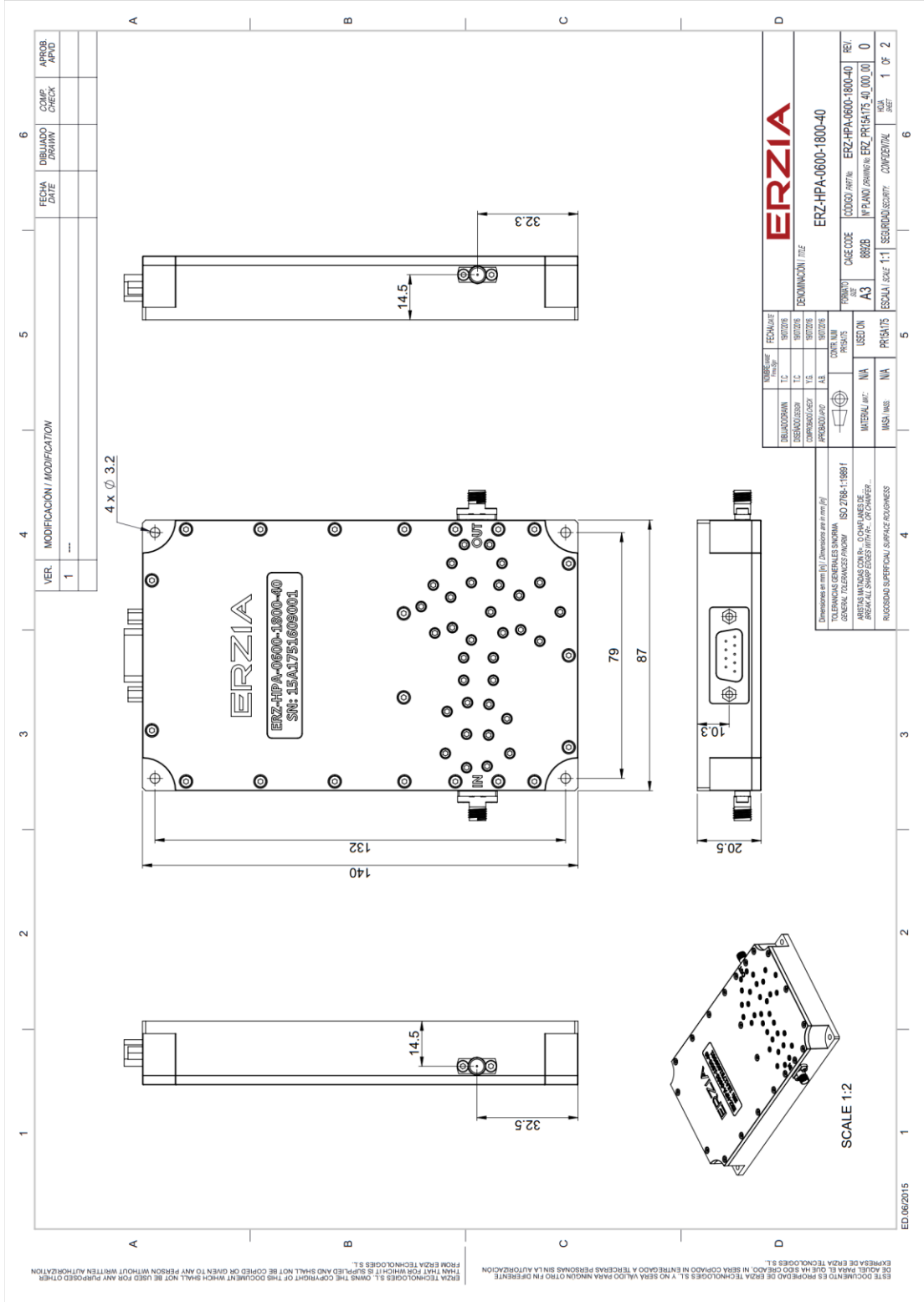
Condition	Value
Temperature	25°C ± 1°C
Humidity	44% ± 10%
DUT Warm up time	30 min
Test equipment warm up time	1 hour

### Absolute Maximum Ratings

Condition	Value
DC Voltage	+36 VDC
Maximum Input Power (Pulsed RF signal) RF input characteristics: - Pulse width: 10 us	2 dBm
Operation temperatura (at case)	-35°C to 70°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



### 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

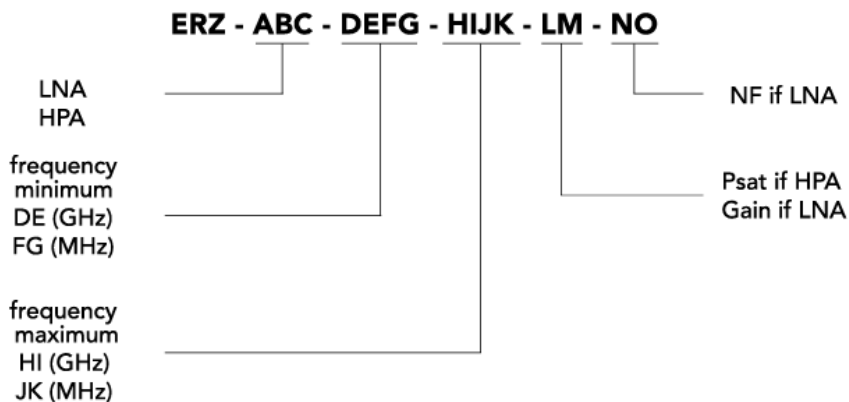
Most of ERZIA's products are based on rad-hard technologies and can be manufactured and integrated according to MIL / ECSS or specific hi-rel standard-screening for space, aeronautics, military or specific hi-reliability usage.

### 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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