



### Main Features:

- Frequency Range: 0.01 to 20 GHz.
- Typical values:
  - Insertion Loss of -10 dB at 0.01 GHz
  - Insertion Loss of -2 dB at 20 GHz
- RF connectors (I/O): 2.92 mm Female
- Several mounting options
- Compact aluminum housing
- Hi-reliability and dedicated screening/  
environmental tests available under request

### ERZ-EQU-0000-2000-10

The ERZ-EQU-0000-2000-10 provides a positive gain slope from 0.01 to 20 GHz and reduces losses over frequency for amplifiers and other RF devices. The ERZIA equalizer is based on high frequency resistors over microstrip technology.

### Typical applications:

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

### Performance

Parameter	Value			Units
	Min	Typ	Max	
Frequency	0.01	-	20	GHz
Small Signal Gain @0.01 GHz	-	-10	-	dB
Small Signal Gain @20GHz	-	-2	-	dB
VSWR input	1.0:1	1.5:1	2.0:1	-
VSWR output	1.0:1	1.5:1	2.0:1	-
Power Handling	-	-	30	dBm
RF Connectors	2.92 mm Female			-

Specifications at a case temperature of 25°C

## Small Signal Gain

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

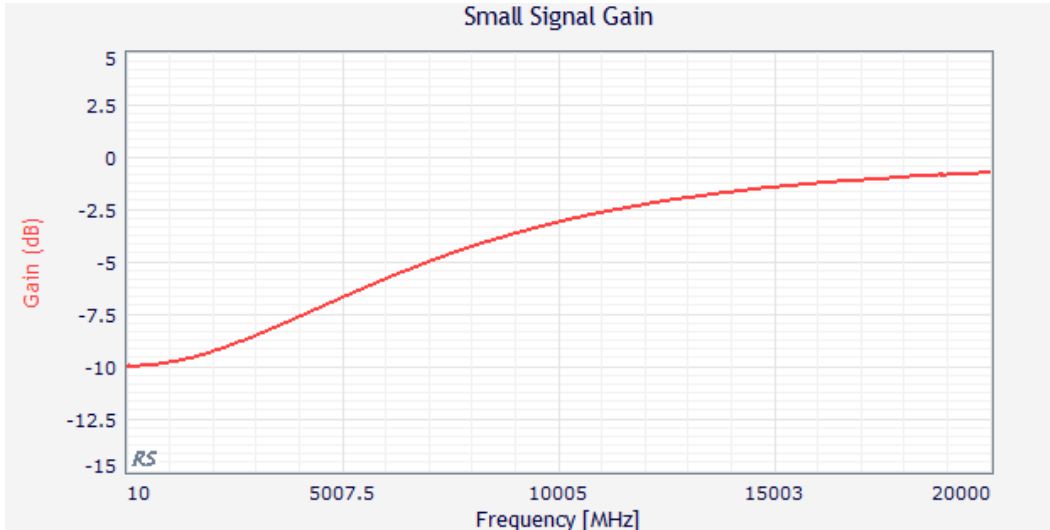


Figure 1: ERZ-EQU-0000-2000-10 Small Signal Gain

## Input and Output Matching

Figure 3 shows input (S11) and output (S22) return loss as a function of frequency at room temperature (25°C).

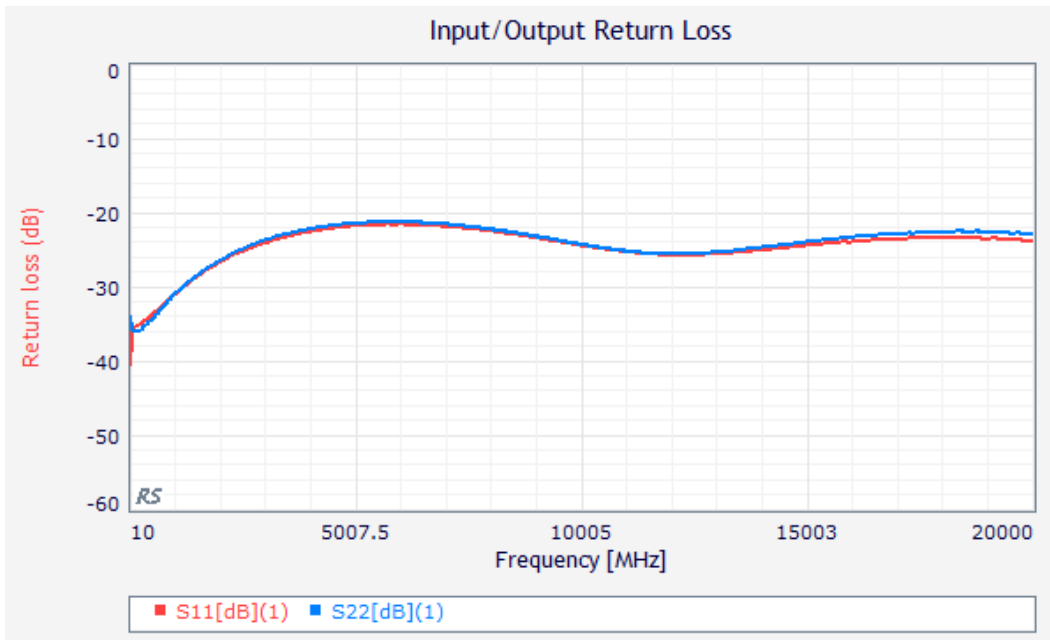


Figure 3: ERZ-EQU-0000-2000-10 Input & Output Return Loss

### Absolute Maximum Ratings

Condition	Value
Maximum Input Power (CW)	30 dBm
Operation temperature (at case)	-40 to 85 °C
Storage temperature	-55 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.

### Measurements Conditions

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

Condition	Value
Temperature (DUT ON)	25 °C ± 1°C
Humidity	44% ± 10%
Additional temperature cycles in climatic chamber (DUT OFF)	-40°C to 85°C

### Environmental Specifications (By Design)

Operating Temperature:	-45 to +85 °C	(MIL-STD-810F, method 520.2)
Storage Temperature:	-55 to 125 °C	(MIL-STD-810F, method 520.2)
Vibration:	8g rms	(MIL-STD-810F, method 514.5)
Shock:	20g,11ms,saw-tooth	(MIL-STD-810F, method 516.5)
Acceleration:	15g	(MIL-STD-810F, method 513.5)

### RoHS & REACH Compliance

This part is compliant with EU 2011/65/UE RoHS (Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) and REACH (Registration, Evaluation, Authorization and restriction of Chemical substances) directives.



### Mechanics and Housing

ABCD

123456

ABCD

VER.	MODIFICACIÓN / MODIFICATION	FECHA DATE	DIBUJADO DRAWN	COMP. CHECK	APROB. APPROV.
1	---				

**NOTES:**

1. Treatment:  
 • SURTEC 650 (MIL-DTL-5541, Type II, Class 3)

NUMERICAL	FECHAS DATE	DESIGNACION CODE	REVISION	DETERMINACION / TITULO
1.0	10/05/2015	ERZ-EQU-0000-2000-10	0	
1.1	10/05/2015	ERZ-EQU-0000-2000-10	1	
1.2	10/05/2015	ERZ-EQU-0000-2000-10	2	
1.3	10/05/2015	ERZ-EQU-0000-2000-10	3	
1.4	10/05/2015	ERZ-EQU-0000-2000-10	4	
1.5	10/05/2015	ERZ-EQU-0000-2000-10	5	
1.6	10/05/2015	ERZ-EQU-0000-2000-10	6	

ED.08/2015
1 OF 1

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## 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.

# ERZIA

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Tel: +34 942 29 13 42

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

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