



### Main Features:

- Type: Double Balanced
- RF/LO Frequency: 10 to 44 GHz.
- IF Frequency: 0 to 20 GHz
- RF connectors: SMA & 2.92 mm Female
- Conversion Loss: 10 dB
- LO Power: 16 dBm
- Compact aluminum housing

### ERZ-MIX-1000-4400-10

The ERZ-MIX-1000-4400-10 is a double balanced mixer with a wideband operational bandwidth and great conversion loss. 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	
RF/LO Frequency	10	-	44	GHz
IF Frequency	0	-	14	GHz
Conversion Loss	6	8	14	dB
LO Power	11	-	20	dBm
Input IP3	-	-	21	dBm
LO to IF Isolation	-	49	-	dB
RF to IF Isolation	-	39	-	dB
LO to RF Isolation	-	47	-	dB
RF VSWR		2.5:1	3.5:1	-
LO VSWR		2.5:1	4.5:1	-
IF VSWR		2.5:1	4.5:1	-
RF Connectors	SMA & 2.92mm Female			-

Specifications at a case temperature of 25°C

### Absolute Maximum Ratings

Condition	Value
Maximum Input Power (CW)	+21 dBm
Operation temperature (at case)	-45 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%
DUT Warm up time	30 min
DUT minimum operation time	24 hours
Test equipment warm up time	2 hours
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.



### 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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