





### ERZ-MIX-0200-2200-10

The ERZ-MIX-0200-2200-10 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.

#### Main Features:

• Type: Double Balanced

• RF/LO Frequency: 2 to 22 GHz.

• IF Frequency: 0 to 3,5 GHz

RF connectors: SMA & 2.92 mm Female

Conversion Loss: 10 dBLO Power: 10 dBm

· Compact aluminum housing

## Typical applications:

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

### **Performance**

Parameter	Value			Units
	Min	Тур	Max	
RF/LO Frequency	2	-	22	GHz
IF Frequency	0	-	3,5	GHz
Conversion Loss	-	8.5	10	dB
LO Power	7	-	15	dBm
Input IP3	-	11,5	1	dBm
LO to IF Isolation	-	29	-	dB
RF to IF Isolation	-	32	1	dB
LO to RF Isolation		51	-	dB
Return Loss RF	-	-10	-5	dB
Return Loss LO	-	-15	-5	dB
Return Loss IF	-	-15	-7	dB
RF Connectors	SMA Female IF 2.92 mm Female for RF/LO			-

Specifications at a case temperature of 25°C

Mixer



# **Absolute Maximum Ratings**

Condition	Value	
Maximum Input Power (CW)	+30 dBm	
Operation temperature (at case)	-55 to 85 °C	
Storage temperature	-65 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.



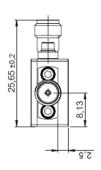




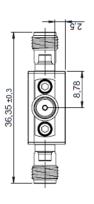
## Mixer

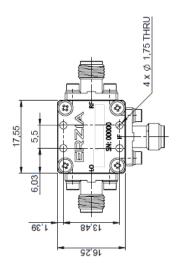
ERZ-MIX-0200-2200-10

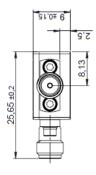
## **Mechanics**















## Mixer

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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.



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