ERZIA

DATASHEET

# 8-Way Power Divider

ERZ-DIV-3000-4000-1-8


## Main Features:

- Frequency Range: 30 to 40 GHz.
- Isolation: >15dB.
- Insertion losses: 12.5 dB
- RF connectors (I/O): 2.92 mm Female
- Compact aluminum housing
- Hi-reliability and dedicated screening/ environmental tests available under request

## ERZ-DIV-3000-4000-1-8

The ERZ-DIV-3000-4000-1-8 is an 8 way power divider / combiner with total insertion losses of 12.5 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 | 30 | - | 40 | GHz |
| Insertion Losses | 11.7 | 12.5 | 13.3 | dB |
| Isolation | 30 | 15 | 12 | dB |
| VSWR 8 ports | 1.2:1 | 1.7:1 | 1.9:1 | - |
| VSWR single port | 1.0:1 | 1.5:1 | 1.7 | - |
| Phase balance | ± 7 | ± 9 | ± 12 | Deg |
| Amplitude balance | ± 0.6 | ± 0.8 | ± 0.9 | dB |
| Connectors | 2.92 mm IN/OUT | | | - |

Specifications at case temperature of 25°C

## Insertion Losses

Figure 1-1 shows the insertion losses measurement as a function of frequency at room temperature (25°C).

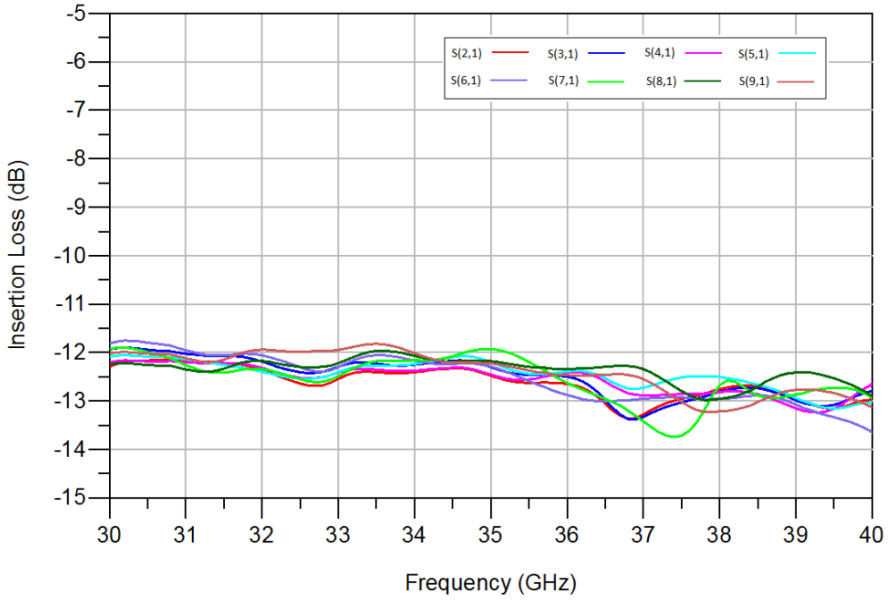


Figure 1-1: ERZ-DIV-3000-4000-1-8 Insertion Losses

## Isolation

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

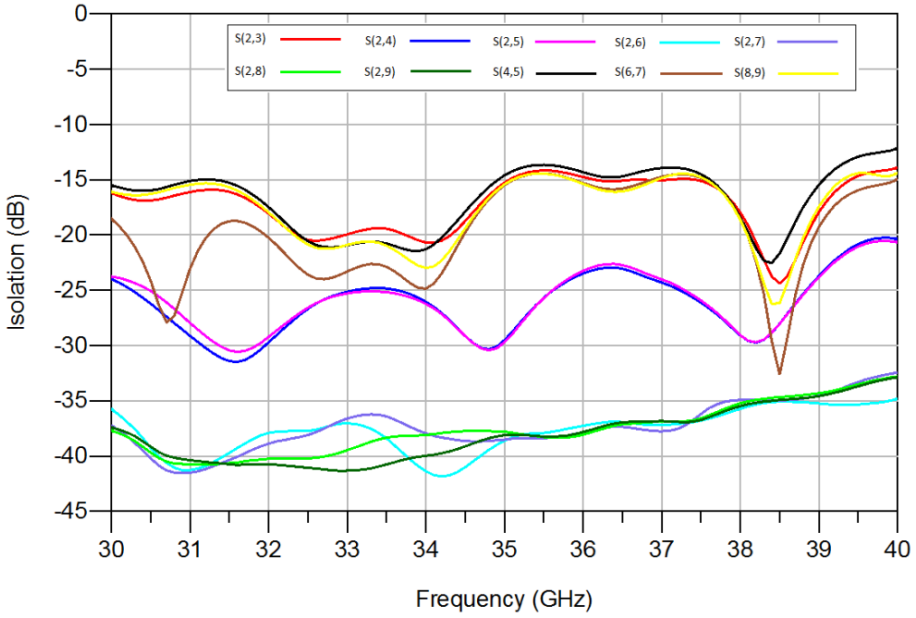


Figure 1-2: ERZ-DIV-3000-4000-1-8 Isolation

## Input and Output Matching

Figure 1-3 and Figure 1-4 show input (S11) and output (S22), S(33), S(44), S(55), S(66), S(77), S(88), S(99) VSWR as a function of frequency at room temperature (25°C).

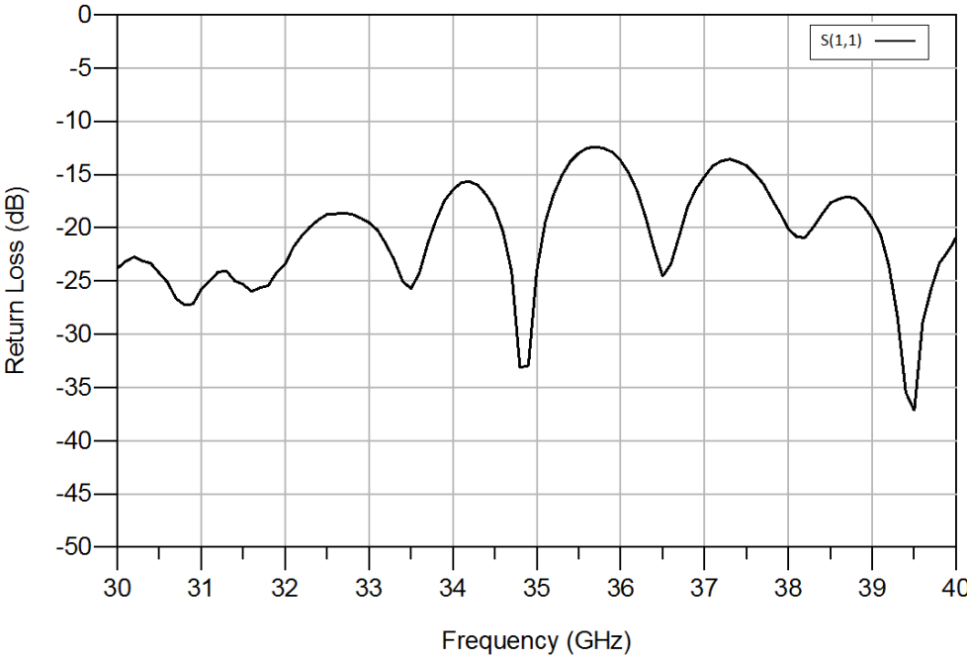


Figure 1-3: ERZ-DIV-3000-4000-1-8 Input Matching

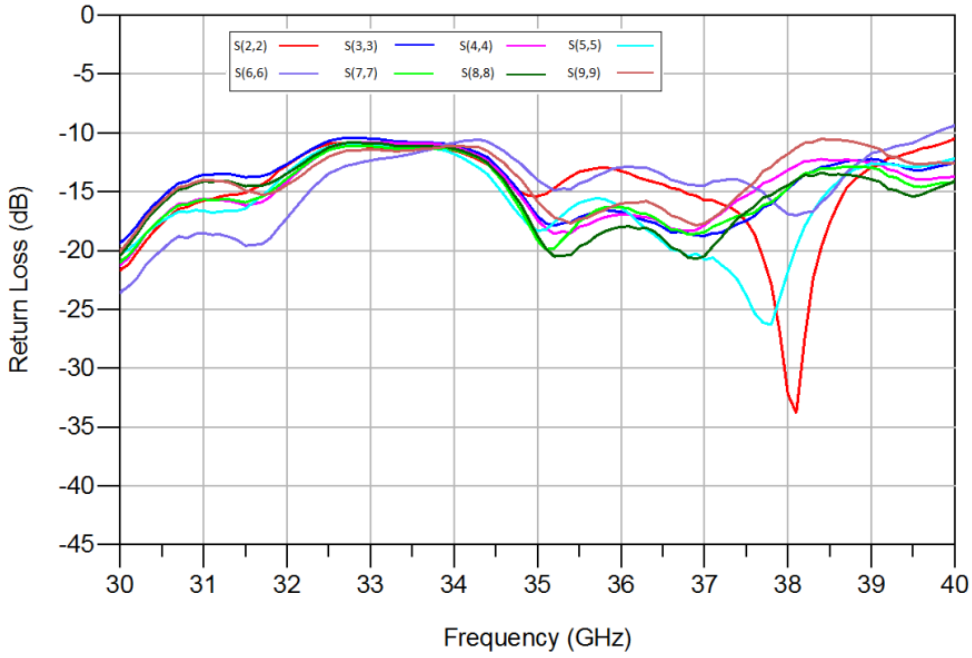


Figure 1-4: ERZ-DIV-3000-4000-1-8 Output Matching

## Phase balance

Figure 1-5 shows phase balance measurement as a function of frequency at room temperature (25°C).

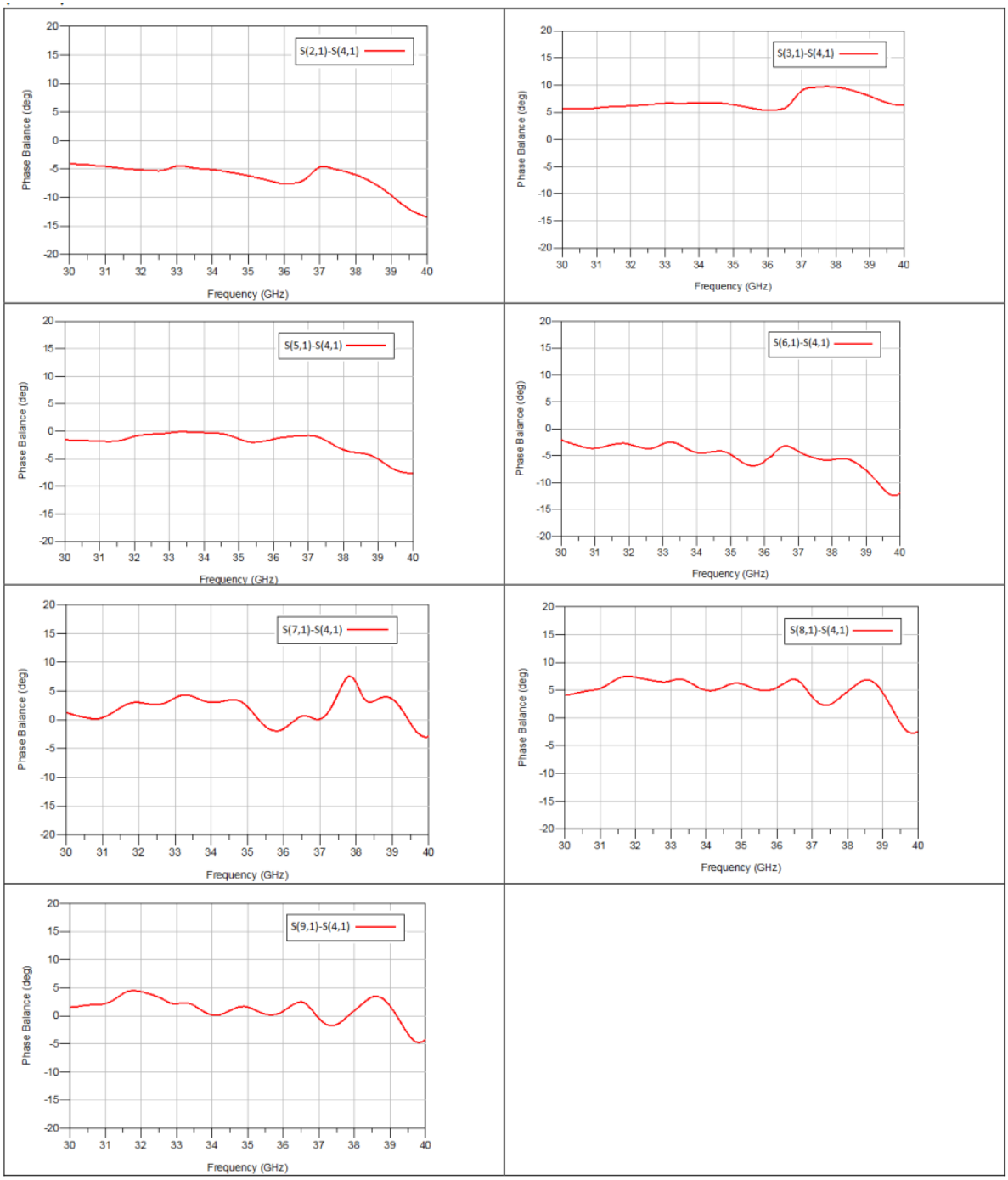


Figure 1-5: ERZ-DIV-3000-4000-1-8 phase balance

## Amplitude Balance

Figure 1-6 shows amplitude balance measurement as a function of frequency at room temperature (25°C).


Figure 1-6: ERZ-DIV-3000-4000-1-8 amplitude balance

## Measurements Conditions

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

| Condition | Value |
|---|---|
| Temperature | 25°C ± 1°C |
| Humidity | 70% ± 10% |

## Absolute Maximum Ratings

| Condition | Value |
|---|---|
| Maximum Input Power | 24 dBm |
| Operation temperature | -40°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.

# 8-Way Power Divider

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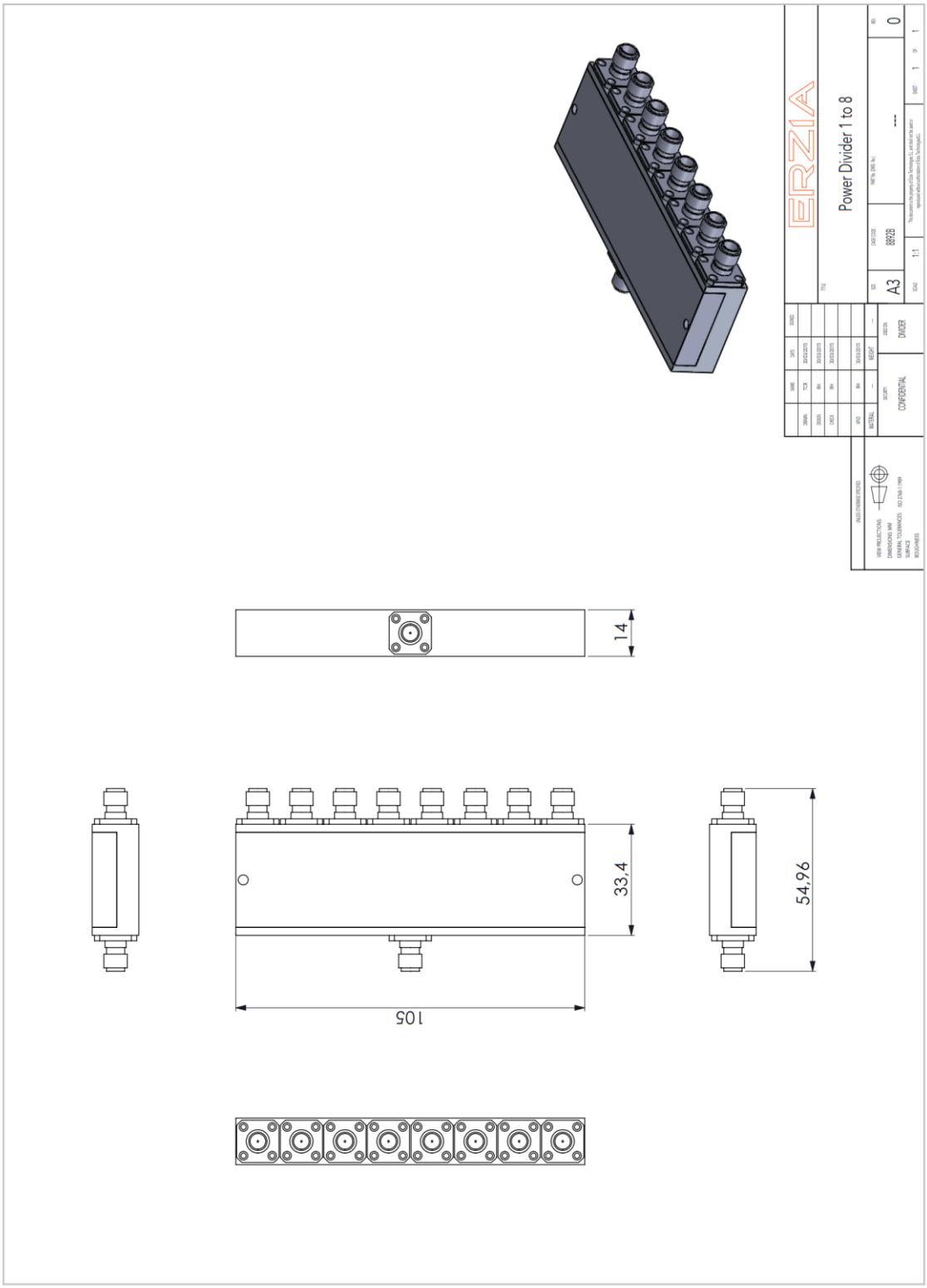
## Mechanics and Housing



## 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…).

## 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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