

Power Splitter/Combiner

ZB8PD-362+

8 Way-0° 50Ω 600 to 3600 MHz



Generic photo used for illustration purposes only

SMA version shown
CASE STYLE: Z41

| Connectors | Model |
|------------|--------------|
| SMA | ZB8PD-362-S+ |
| N-TYPE | ZB8PD-362-N+ |

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

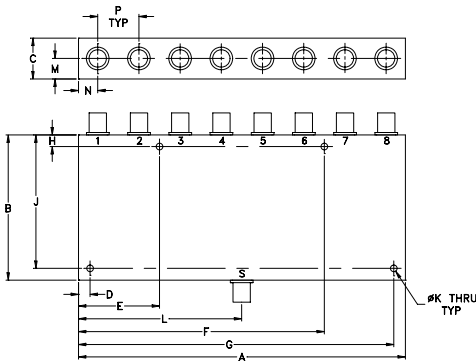
| | |
|-----------------------------|---------------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 10W max. |
| Internal Dissipation | 0.875W max. |
| DC Current | 1.2A(150mA for each port) |

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

| | |
|----------------------|-----------------|
| SUM PORT | S |
| PORT 1,2,3,4,5,6,7,8 | 1,2,3,4,5,6,7,8 |

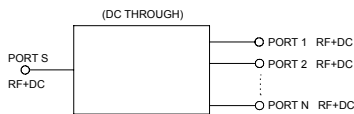
Outline Drawing



Outline Dimensions (inch/mm)

| | | | | | | | |
|--------|-------|-------|-------|-------|--------|--------|------|
| A | B | C | D | E | F | G | H |
| 7.06 | 3.13 | .88 | .250 | 1.750 | 5.310 | 6.810 | .250 |
| 179.32 | 79.50 | 22.35 | 6.35 | 44.45 | 134.87 | 172.97 | 6.35 |
| J | K | L | M | N | P | wt | |
| 2.875 | .144 | 3.53 | .44 | .415 | .89 | grams | |
| 73.03 | 3.66 | 89.66 | 11.18 | 10.54 | 22.61 | 800 | |

Electrical Schematic



Features

- wideband, 600 to 3600 MHz
- low insertion loss, 1.0 dB typ.
- good isolation, 25 dB typ.
- rugged shielded case

Applications

- WiMax
- LTE
- WCDMA
- Cellular Infrastructure

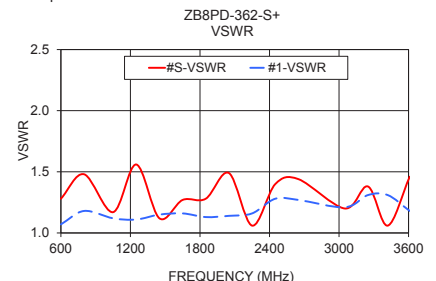
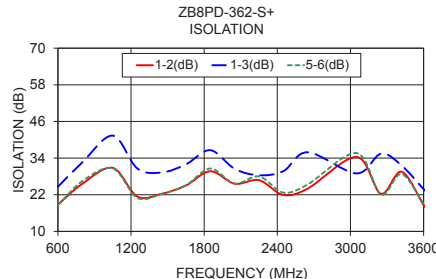
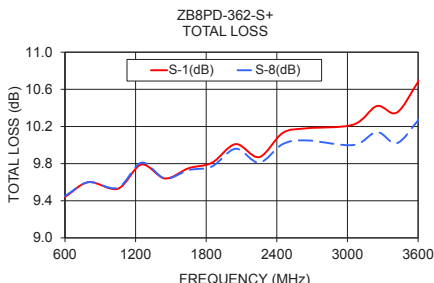
Electrical Specifications at 25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|---|-----------------|------|------|------|--------|
| Frequency Range | | 600 | | 3600 | MHz |
| Insertion Loss (above theoretical 9.0 dB) | 600 - 1600 | — | 0.7 | 1.0 | dB |
| | 1600 - 2600 | — | 1.0 | 1.5 | |
| | 2600 - 3600 | — | 1.6 | 2.1 | |
| Isolation | 600 - 1600 | 16 | 20 | — | dB |
| | 1600 - 2600 | 18 | 23 | — | |
| | 2600 - 3600 | 16 | 20 | — | |
| Phase Unbalance | 600 - 1600 | — | 2 | 5 | Degree |
| | 1600 - 2600 | — | 4 | 9 | |
| | 2600 - 3600 | — | 5 | 10 | |
| Amplitude Unbalance | 600 - 1600 | — | 0.1 | 0.5 | dB |
| | 1600 - 2600 | — | 0.2 | 0.7 | |
| | 2600 - 3600 | — | 0.4 | 0.9 | |
| VSWR (Port S) | 600 - 1600 | — | 1.5 | 1.8 | :1 |
| | 1600 - 2600 | — | 1.4 | 1.7 | |
| | 2600 - 3600 | — | 1.5 | 1.8 | |
| VSWR (Port 1-8) | 600 - 1600 | — | 1.1 | 1.4 | :1 |
| | 1600 - 2600 | — | 1.3 | 1.6 | |
| | 2600 - 3600 | — | 1.4 | 1.7 | |

Typical Performance Data

| Freq. (MHz) | Total Loss ¹ (dB) | | | | | | Amp. Unb. (dB) | Isolation (dB) | | | | Phase Unb. (deg.) | VSWR S | VSWR 1 | VSWR 8 |
|-------------|------------------------------|-------|-------|-------|-------|-------|----------------|----------------|-------|-------|-------|-------------------|--------|--------|--------|
| | S-1 | S-2 | S-3 | S-4 | S-6 | S-8 | | 1-2 | 1-3 | 3-4 | 5-6 | | | | |
| 600.00 | 9.44 | 9.41 | 9.41 | 9.44 | 9.42 | 9.45 | 0.05 | 18.77 | 24.61 | 18.75 | 18.60 | 1.01 | 1.28 | 1.07 | 1.06 |
| 800.00 | 9.60 | 9.58 | 9.57 | 9.59 | 9.59 | 9.60 | 0.04 | 25.59 | 32.59 | 26.26 | 26.46 | 1.28 | 1.48 | 1.18 | 1.16 |
| 1050.00 | 9.53 | 9.52 | 9.51 | 9.52 | 9.54 | 9.54 | 0.04 | 30.80 | 41.36 | 31.01 | 30.66 | 1.77 | 1.17 | 1.12 | 1.11 |
| 1250.00 | 9.79 | 9.79 | 9.79 | 9.78 | 9.81 | 9.81 | 0.04 | 21.45 | 30.67 | 21.37 | 21.00 | 2.01 | 1.56 | 1.11 | 1.12 |
| 1450.00 | 9.64 | 9.63 | 9.64 | 9.64 | 9.66 | 9.64 | 0.04 | 22.29 | 29.28 | 22.13 | 22.27 | 2.41 | 1.12 | 1.15 | 1.16 |
| 1650.00 | 9.75 | 9.74 | 9.74 | 9.74 | 9.76 | 9.73 | 0.05 | 25.03 | 31.94 | 25.29 | 25.10 | 2.77 | 1.27 | 1.16 | 1.17 |
| 1850.00 | 9.81 | 9.80 | 9.80 | 9.81 | 9.82 | 9.77 | 0.07 | 29.69 | 36.60 | 30.51 | 30.59 | 3.11 | 1.28 | 1.13 | 1.12 |
| 2050.00 | 10.01 | 10.01 | 10.01 | 10.00 | 10.02 | 9.96 | 0.07 | 25.62 | 30.49 | 25.99 | 25.69 | 3.56 | 1.49 | 1.14 | 1.16 |
| 2250.00 | 9.87 | 9.85 | 9.85 | 9.85 | 9.88 | 9.81 | 0.10 | 26.77 | 28.39 | 27.03 | 27.99 | 3.96 | 1.06 | 1.16 | 1.18 |
| 2450.00 | 10.13 | 10.10 | 10.12 | 10.09 | 10.08 | 10.01 | 0.12 | 21.94 | 29.74 | 22.02 | 22.71 | 4.40 | 1.40 | 1.28 | 1.27 |
| 2650.00 | 10.18 | 10.15 | 10.19 | 10.14 | 10.14 | 10.05 | 0.15 | 24.03 | 35.92 | 24.20 | 25.39 | 4.81 | 1.44 | 1.27 | 1.27 |
| 3050.00 | 10.22 | 10.19 | 10.23 | 10.11 | 10.18 | 10.00 | 0.23 | 34.38 | 28.99 | 36.41 | 35.65 | 5.36 | 1.20 | 1.21 | 1.17 |
| 3250.00 | 10.42 | 10.36 | 10.40 | 10.30 | 10.35 | 10.14 | 0.28 | 22.35 | 35.42 | 22.19 | 22.05 | 5.48 | 1.38 | 1.31 | 1.25 |
| 3420.00 | 10.35 | 10.26 | 10.28 | 10.17 | 10.20 | 10.02 | 0.33 | 29.53 | 31.57 | 29.62 | 28.76 | 5.61 | 1.06 | 1.31 | 1.25 |
| 3610.00 | 10.70 | 10.60 | 10.59 | 10.52 | 10.44 | 10.28 | 0.42 | 18.01 | 23.41 | 17.71 | 18.52 | 6.09 | 1.46 | 1.18 | 1.16 |

1. Total Loss = Insertion Loss + 9.0 dB splitter theoretical loss.



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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