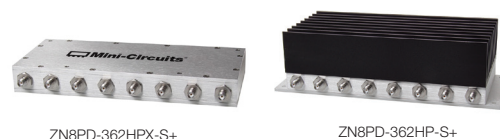


8 Way-0° 50Ω Up to 100W 600 to 3600 MHz

The Big Deal

- High power, up to 100W as a splitter
- Low insertion loss, 1.0 dB
- Good isolation, 23 dB



ZN8PD-362HPX-S+

ZN8PD-362HP-S+

Product Overview

Mini-Circuits' ZN8PD-362HP+ is an 8-way 0° splitter/combiner providing very high power handling and low insertion loss across 600 to 3600 MHz, covering many wireless communications bands as well as satellite IF and more. Its outstanding combination of high power and low loss minimize power dissipation due to intrinsic losses and provide excellent signal fidelity from input to output. This model also provides high port-to-port isolation and low amplitude and phase unbalance. It comes housed in a rugged aluminum alloy case with your choice of SMA or N-Type connectors and an optional heat sink for cooling.

| Feature | Advantages |
|--|---|
| Wideband, 600 to 3600 MHz | ZN8PD-362HP+ covers many popular wireless communications bands, making it suitable for a wide variety of applications. |
| High power handling: <ul style="list-style-type: none"> • 100W as a splitter • 3.2W as a combiner | Suitable for many high power applications. |
| Low insertion loss, 1.0 dB | Very low insertion loss minimizes intrinsic losses, making this model a suitable candidate for high power signal distribution applications where low loss is a requirement. |
| Low unbalance: <ul style="list-style-type: none"> • 0.35 dB amplitude unbalance • 4° phase unbalance | ZN8PD-362HP+ produces nearly equal output signals, ideal for parallel path / multichannel systems. |
| DC Passing, 1.2A (each port) | Supports applications where DC power is needed at later stages in the system. |

Notes

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8 Way-0° 50Ω Up to 100W 600 to 3600 MHz

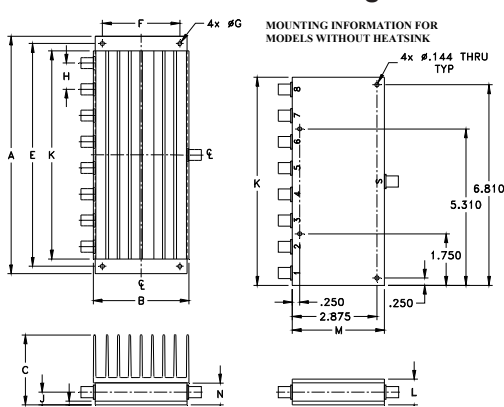
Maximum Ratings

| | |
|---|----------------------------|
| Operating Temperature | -55°C to 60°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter ¹) | 100W max. |
| Internal Dissipation | 3.2W 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



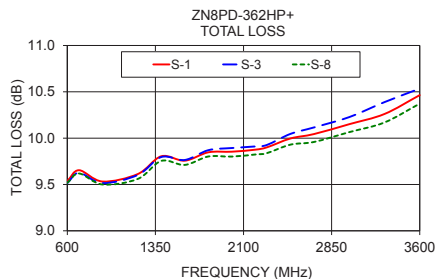
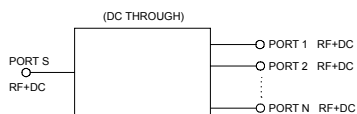
Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G |
|--------|-------|-------|------|--------|-------|------|
| 8.06 | 3.25 | 2.38 | .125 | 7.560 | 2.625 | .144 |
| 204.72 | 82.55 | 60.45 | 3.18 | 192.02 | 66.68 | 3.66 |

| H | J | K | L | M | N | wt |
|-------|-------|--------|-------|--------|-------|--------|
| .890 | .44 | 7.06 | .88 | 7.06 | .88 | grams* |
| 22.61 | 11.18 | 179.32 | 22.35 | 179.32 | 22.35 | 1240 |

*850 grams without heatsink

Electrical Schematic



Features

- power handling up to 100W
- wideband, 600 to 3600 MHz
- low insertion loss, 1.0 dB typ.
- good isolation, 23 dB typ.
- rugged shielded case

Applications

- WiMax
- LTE
- WCDMA

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 - 700 | — | 0.7 | 1.0 | dB |
| | 700 - 2700 | — | 1.0 | 1.6 | |
| | 2700 - 3600 | — | 1.6 | 2.2 | |
| Isolation | 600 - 700 | 16 | 20 | — | dB |
| | 700 - 2700 | 19 | 23 | — | |
| | 2700 - 3600 | 16 | 20 | — | |
| Phase Unbalance | 600 - 700 | — | 1 | 3 | Degree |
| | 700 - 2700 | — | 4 | 8 | |
| | 2700 - 3600 | — | 5 | 10 | |
| Amplitude Unbalance | 600 - 700 | — | 0.1 | 0.3 | dB |
| | 700 - 2700 | — | 0.2 | 0.7 | |
| | 2700 - 3600 | — | 0.4 | 0.9 | |
| VSWR (Port S) | 600 - 700 | — | 1.5 | 1.7 | :1 |
| | 700 - 2700 | — | 1.4 | 1.8 | |
| | 2700 - 3600 | — | 1.5 | 1.8 | |
| VSWR (Port 1-8) | 600 - 700 | — | 1.1 | 1.35 | :1 |
| | 700 - 2700 | — | 1.15 | 1.35 | |
| | 2700 - 3600 | — | 1.2 | 1.35 | |
| Power Handling | As Splitter¹ | 600 - 2700 | — | 100 | Watt |
| | As Combiner² | 600 - 3600 | — | 50 | |
| | | | | 3.2 | |

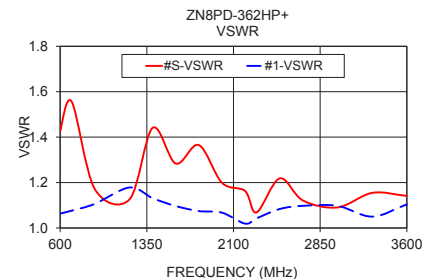
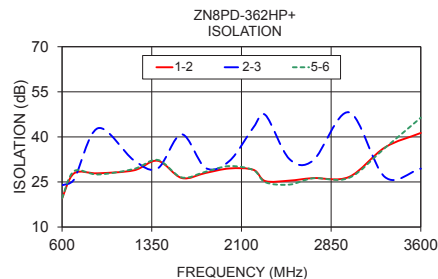
1. All outputs must terminate 50 ohm (VSWR 1.5:1 or better)

2. As a combiner of non-coherent signals, max. power per port is 3.2 watt power rating divided by number of ports.

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 | 2-3 | 3-4 | 5-6 | | | | |
| 600 | 9.54 | 9.54 | 9.51 | 9.51 | 9.53 | 9.52 | 0.05 | 19.47 | 23.95 | 19.46 | 19.53 | 0.76 | 1.43 | 1.06 | 1.05 |
| 700 | 9.65 | 9.65 | 9.63 | 9.62 | 9.64 | 9.62 | 0.04 | 27.87 | 25.82 | 27.94 | 28.59 | 0.88 | 1.56 | 1.08 | 1.08 |
| 900 | 9.53 | 9.52 | 9.51 | 9.49 | 9.53 | 9.50 | 0.05 | 27.88 | 42.88 | 28.04 | 27.48 | 1.13 | 1.17 | 1.11 | 1.12 |
| 1200 | 9.61 | 9.60 | 9.60 | 9.57 | 9.62 | 9.56 | 0.06 | 28.86 | 32.22 | 29.31 | 29.33 | 1.40 | 1.13 | 1.18 | 1.17 |
| 1400 | 9.80 | 9.80 | 9.80 | 9.78 | 9.81 | 9.75 | 0.06 | 32.05 | 29.51 | 31.81 | 32.32 | 1.55 | 1.44 | 1.13 | 1.12 |
| 1600 | 9.76 | 9.76 | 9.76 | 9.74 | 9.78 | 9.71 | 0.07 | 26.32 | 40.86 | 26.51 | 26.51 | 1.75 | 1.28 | 1.10 | 1.08 |
| 1800 | 9.85 | 9.86 | 9.87 | 9.85 | 9.87 | 9.80 | 0.07 | 27.99 | 29.65 | 27.91 | 28.39 | 1.76 | 1.37 | 1.07 | 1.06 |
| 2000 | 9.85 | 9.88 | 9.89 | 9.86 | 9.89 | 9.80 | 0.09 | 29.49 | 32.00 | 30.28 | 30.28 | 2.02 | 1.20 | 1.07 | 1.07 |
| 2200 | 9.88 | 9.89 | 9.91 | 9.87 | 9.91 | 9.82 | 0.09 | 29.04 | 43.15 | 28.13 | 28.94 | 1.94 | 1.16 | 1.02 | 1.03 |
| 2300 | 9.90 | 9.91 | 9.93 | 9.89 | 9.92 | 9.84 | 0.09 | 25.28 | 47.28 | 24.64 | 24.90 | 1.98 | 1.07 | 1.04 | 1.04 |
| 2500 | 10.00 | 10.00 | 10.05 | 10.01 | 10.06 | 9.93 | 0.13 | 25.44 | 32.67 | 24.86 | 24.11 | 2.07 | 1.22 | 1.08 | 1.09 |
| 2700 | 10.04 | 10.04 | 10.12 | 10.06 | 10.10 | 9.96 | 0.16 | 26.28 | 32.17 | 26.22 | 26.24 | 2.16 | 1.12 | 1.10 | 1.10 |
| 3000 | 10.15 | 10.15 | 10.23 | 10.18 | 10.19 | 10.06 | 0.16 | 26.67 | 48.18 | 26.42 | 26.37 | 2.35 | 1.09 | 1.10 | 1.11 |
| 3300 | 10.26 | 10.29 | 10.39 | 10.32 | 10.34 | 10.17 | 0.22 | 36.49 | 26.63 | 36.18 | 36.31 | 2.54 | 1.15 | 1.05 | 1.05 |
| 3600 | 10.46 | 10.49 | 10.53 | 10.48 | 10.50 | 10.37 | 0.16 | 41.31 | 29.44 | 45.05 | 46.39 | 2.57 | 1.14 | 1.10 | 1.12 |

1. Total Loss = Insertion Loss + 9dB theoretical splitter loss.



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