HenryTech

# Power Splitter/Combiner

## HT-ADP-2-4+

**2 Way-0° 50Ω 10 to 1000 MHz**

### Features
- low insertion loss, 0.4 dB typ.
- excellent amplitude unbalance, 0.10 dB typ.
- very good phase unbalance, 0.5 deg. typ.
- aqueous washable

### Applications
- instrumentation
- cellular

### electrical schematic

### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) | | INSERTION LOSS ABOVE 3.0 dB | | PHASE UNBALANCE (Degrees) | | AMPLITUDE UNBALANCE (dB) | |
|---|---|---|---|---|---|---|---|---|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| 10-1000 | 14 | 25 | 0.3 | 1.5 | 1.0 | 5.0 | 0.15 | 0.4 |

### Maximum Ratings

| | |
|---|---|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1W max. |
| Internal Dissipation | 0.125W max. |

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

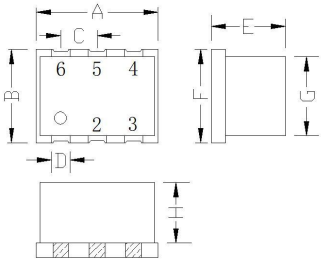
### Typical Performance Data

| Freq. (MHz) | Total Loss (dB) | | Amp. Unbal. (dB) | Isolation (dB) | Phase Unbal. (deg.) | VSWRS | | |
|---|---|---|---|---|---|---|---|---|
| | S-1 | S-2 | | | | S | 1 | 2 |
| 10 | 3.27 | 3.26 | 0.01 | 29.66 | 0.03 | 1.12 | 1.27 | 1.27 |
| 50 | 3.26 | 3.26 | 0.00 | 27.85 | 0.05 | 1.12 | 1.24 | 1.24 |
| 100 | 3.22 | 3.22 | 0.00 | 26.35 | 0.13 | 1.15 | 1.25 | 1.25 |
| 200 | 3.30 | 3.30 | 0.00 | 24.51 | 0.21 | 1.22 | 1.27 | 1.26 |
| 250 | 3.35 | 3.34 | 0.01 | 23.57 | 0.21 | 1.25 | 1.28 | 1.27 |
| 350 | 3.38 | 3.36 | 0.02 | 22.19 | 0.32 | 1.32 | 1.31 | 1.30 |
| 400 | 3.53 | 3.52 | 0.01 | 21.78 | 0.36 | 1.36 | 1.33 | 1.31 |
| 500 | 3.56 | 3.53 | 0.03 | 20.95 | 0.44 | 1.42 | 1.36 | 1.33 |
| 550 | 3.58 | 3.55 | 0.03 | 20.65 | 0.50 | 1.44 | 1.37 | 1.34 |
| 650 | 3.66 | 3.60 | 0.05 | 20.35 | 0.54 | 1.48 | 1.39 | 1.35 |
| 700 | 3.69 | 3.63 | 0.07 | 20.39 | 0.62 | 1.49 | 1.40 | 1.35 |
| 800 | 3.87 | 3.79 | 0.08 | 20.86 | 0.70 | 1.48 | 1.40 | 1.35 |
| 850 | 3.72 | 3.62 | 0.10 | 21.23 | 0.76 | 1.46 | 1.39 | 1.34 |
| 950 | 3.94 | 3.82 | 0.12 | 23.04 | 0.78 | 1.39 | 1.38 | 1.31 |
| 1000 | 4.01 | 3.88 | 0.13 | 24.55 | 0.90 | 1.34 | 1.37 | 1.30 |

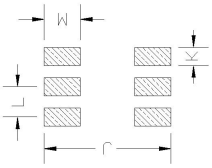
### Pin Connections

| | |
|---|---|
| SUM PORT | 1 |
| PORT 1 | 3 |
| PORT 2 | 4 |
| GROUND | 6 |
| Externally connect together & isolate | 2,5 |

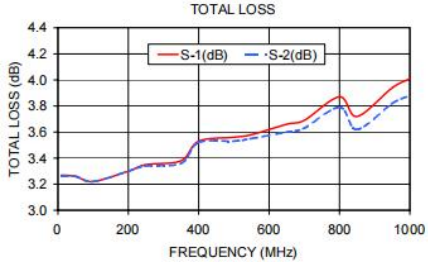
### Outline Drawing

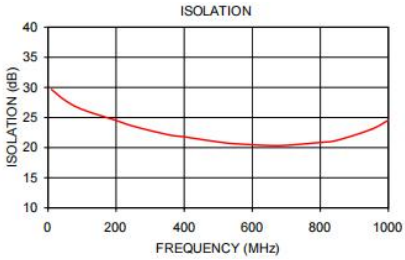


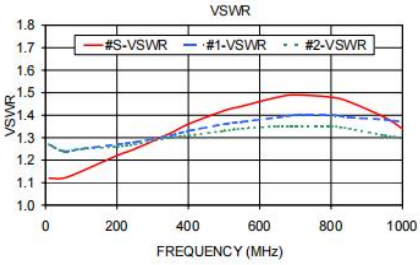

### PCB Land Pattern



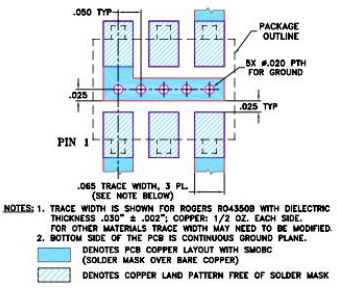

Suggested Layout,
Tolerance to be within ±0.2




### Suggested PCB Layout




### Outline Dimensions: Unit ( mm)

| | | | |
|---|---|---|---|
| A | 8.70 | G | 5.50 |
| B | 6.50 | H | 4.30 |
| C | 2.54 | L | 2.54 |
| D | 1.30 | J | 8.00 |
| E | 5.40 | K | 1.50 |
| F | 6.54 | M | 2.00 |
| WT | 0.5g | | |

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