

Two-, Four-, & Eight-Way Isolated Power Dividers Wilkinson

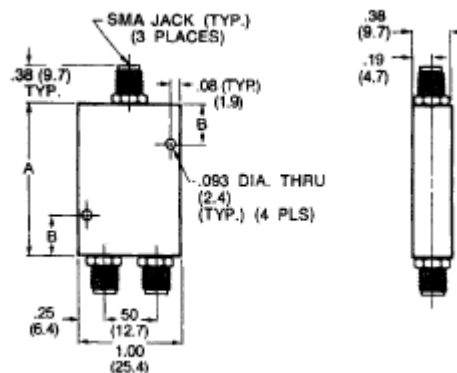
Rev. V4

Features

- Excellent Amplitude and Phase Balance
- High Isolation between Output Ports
- Low VSWR, Small Size and Light Weight
- Octave and Multi-Octave Frequency Coverage
- Power: 10 Watts Input Maximum with Matched Terminations

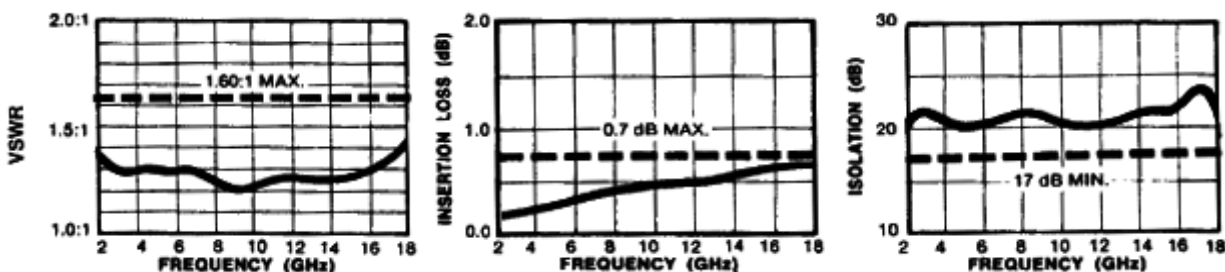
Description and Applications

This series of two-way, in-phase stripline power dividers demonstrates excellent performance as well as small size and light weight. These octave and multi-octave power dividers have high isolation, low VSWR and excellent amplitude and phase balance.



Note: All dimensions are $\pm .020$, except mounting hole diameters ($\pm .005$) and mounting hole location ($\pm .010$).

Typical Performance Part No. 2089-6208-00



Two-Way Isolated Power Divider Specifications

| Part # | Frequency Range (GHz) | VSWR (max.) | Isolation dB (min.) | Insertion Loss dB (max.) | Output Unbalance | | Input Power* (watts) (max.) | Size Inches (mm) | | Weight | |
|--------------|-----------------------|-------------|---------------------|--------------------------|------------------|--------------|-----------------------------|------------------|------------|--------|----|
| | | | | | Amp. (dB) | Phase (deg.) | | A | B | oz. | g |
| 2089-6201-00 | 1.0-2.0 | 1.25 | 20 | 0.25 | 0.2 | 4.0 | 2.0 | 2.0 (50.8) | 0.5 (12.7) | 1.5 | 43 |
| 2089-6202-00 | 2.0-4.0 | 1.35 | 20 | 0.25 | 0.2 | 4.0 | 2.0 | 2.0 (50.8) | 0.5 (12.7) | 1.5 | 43 |
| 2089-6203-00 | 4.0-8.0 | 1.35 | 20 | 0.3 | 0.2 | 6.0 | 2.0 | 1.38 (35) | 0.4 (10.2) | 1.2 | 35 |
| 2089-6204-00 | 8.0-12.4 | 1.60 | 20 | 0.4 | 0.25 | 6.0 | 2.0 | 1.38 (35) | 0.4 (10.2) | 1.2 | 35 |
| 2089-6205-00 | 12.4-18.0 | 1.70 | 17 | 0.6 | 0.25 | 6.0 | 3.0 | 1.38 (35) | 0.4 (10.2) | 1.2 | 35 |
| 2089-6206-00 | 0.5-2.0 | 1.30 | 20 | 0.4 | 0.2 | 4.0 | 4.0 | 2.8 (71.2) | 1.4 (35.6) | 2.0 | 57 |
| 2089-6207-00 | 2.0-8.0 | 1.50 | 18 | 0.4 | 0.25 | 8.0 | 4.0 | 2.25 (57.2) | 0.5 (12.7) | 1.3 | 37 |
| 2089-6208-00 | 2.0-18.0 | 1.60 | 17 | 1.0 | 0.25 | 8.0 | 10.0 | 2.25 (57.2) | 0.5 (12.7) | 1.3 | 37 |
| 2089-6209-00 | 4.0-18.0 | 1.60 | 17 | 0.6 | 0.25 | 8.0 | 4.0 | 1.63 (41.4) | 0.5 (12.7) | 1.3 | 37 |
| 2089-6210-00 | 7.0-18.0 | 1.70 | 17 | 0.6 | 0.25 | 8.0 | 3.0 | 1.38 (35) | 0.4 (10.2) | 1.2 | 35 |

* Maximum input power with output loads of VSWR $\leq 2.0:1$. Derate to 10% of listed value when arbitrarily terminated.

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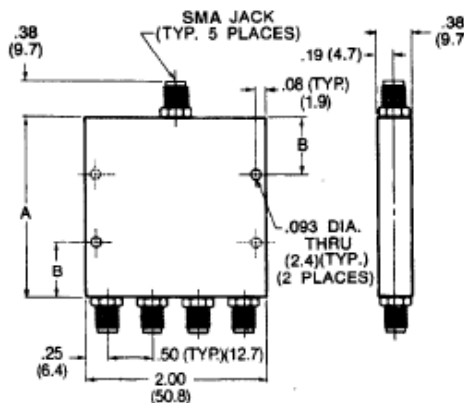
Rev. V4

Features

- Octave and Multi-Octave Frequency Coverage
- Low Insertion Loss
- Excellent Phase Balance
- High Isolation between Output Ports
- Low VSWR
- Power: 20 Watts Maximum

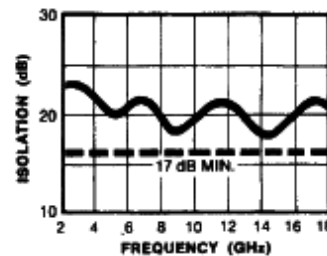
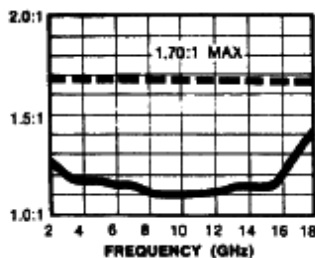
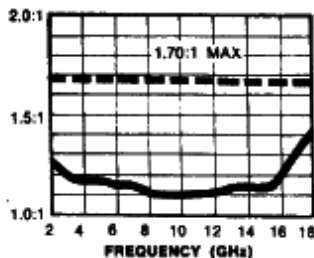
Description and Applications

These four-way in-phase power dividers combine excellent strip transmission line design techniques with small size and light weight and still achieve superb performance over wide multi-octave frequency ranges as well as over single octave bandwidths. These units may be used in reverse to combine in-phase signals applied to them. They can be custom designed to your particular application.



Note: All dimensions are $\pm .020$, except mounting hole diameters ($\pm .005$) and mounting hole location ($\pm .010$).

Typical Performance Part No. 2089-6408-00



Four-Way Isolated Power Divider Specifications

| Part # | Frequency Range (GHz) | VSWR (max.) | Isolation dB (min.) | Insertion Loss dB (max.) | Output Unbalance | | Input Power* (watts) (max.) | Size, Inches (mm) | | Weight | |
|----------------|-----------------------|-------------|---------------------|--------------------------|------------------|--------------|-----------------------------|-------------------|-------------|--------|-----|
| | | | | | Amp. (dB) | Phase (deg.) | | A | B | oz. | g |
| 2089-6401-00** | 1.0-2.0 | 1.35 | 20 | 0.50 | 0.40 | 6 | 4.0 | 3.0 (76.2) | 0.63 (15.9) | 4.0 | 115 |
| 2089-6402-00 | 2.0-4.0 | 1.35 | 20 | 0.50 | 0.40 | 6 | 4.0 | 2.0 (50.8) | | 2.8 | 80 |
| 2089-6403-00 | 4.0-8.0 | 1.50 | 20 | 0.50 | 0.40 | 8 | 4.0 | 2.0 (50.8) | | 2.8 | 80 |
| 2089-6404-00 | 8.0-12.4 | 1.70 | 18 | 0.75 | 0.50 | 8 | 4.0 | 2.0 (50.8) | | 2.8 | 80 |
| 2089-6405-00 | 12.4-18.0 | 1.70 | 15 | 1.20 | 0.50 | 8 | 6.0 | 2.0 (50.8) | | 2.8 | 80 |
| 2089-6406-00 | 0.5-2.0 | 1.45 | 20 | 0.70 | 0.40 | 6 | 4.0 | 2.92 (74.2) | | 4.0 | 115 |
| 2089-6408-00 | 2.0-18.0 | 1.70 | 17 | 1.80 | 0.50 | 12 | 20.0 | 3.0 (76.2) | | 4.0 | 115 |
| 2089-6409-00 | 4.0-18.0 | 1.70 | 15 | 1.20 | 0.50 | 12 | 8.0 | 2.0 (50.8) | | 2.8 | 80 |
| 2089-6410-00 | 7.0-18.0 | 1.60 | 15 | 1.20 | 0.50 | 12 | 6.0 | 2.0 (50.8) | | 2.8 | 80 |

* Maximum input power with output loads of $VSWR \leq 2.0:1$. Derate to 10% of listed value when arbitrarily terminated.

** These units have four mounting holes symmetrically located as shown.

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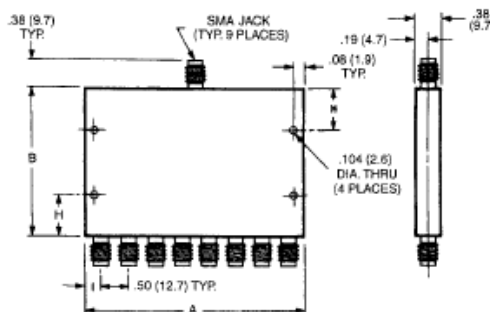
Rev. V4

Features

- Octave and Multi-Octave Frequency Coverage
- Excellent Amplitude and Phase Balance
- Low Insertion Loss
- Low VSWR

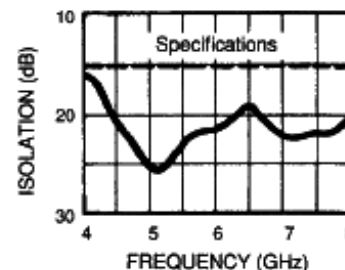
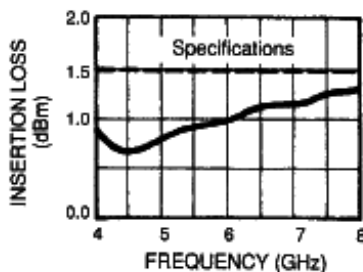
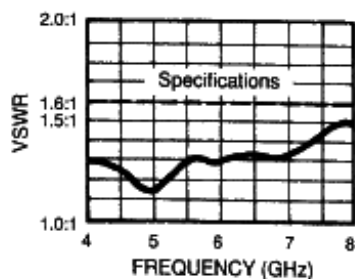
Description and Applications

These eight-way in-phase power dividers combine reliable strip transmission line design techniques with small size and light weight to achieve excellent performance over octave and multi-octave frequency ranges. They may also be used to combine in-phase signals applied at the outputs. SMA female connectors are standard.



All dimensions are $\pm .020$, except mounting hole diameters ($\pm .005$) and mounting hole location ($\pm .010$).

Typical Performance Part No. 2089-6803-00



Eight-Way Isolated Power Divider Specifications

| Part # | Frequency Range (GHz) | VSWR (max.) | Isolation dB (min.) | Insertion Loss dB (max.) | Output Unbalance | | Input Power* (watts) (max.) | Size Inches | | | | Weight (nom.) oz. |
|--------------|-----------------------|-------------|---------------------|--------------------------|------------------|--------------|-----------------------------|-------------|-----|-----|------|-------------------|
| | | | | | Amp. (dB) | Phase (deg.) | | A | B | H | I | |
| 2089-6801-00 | 1.0-2.0 | 1.5:1 | 20 | 1.0 | 0.8 | 8 | 6.0 | 4.5 | 5.0 | 1.0 | 0.50 | 15 |
| 2089-6803-00 | 4.0-8.0 | 1.6:1 | 15 | 1.5 | 0.8 | 16 | 6.0 | 4.0 | 2.0 | 0.5 | 0.25 | 12 |
| 2089-6804-00 | 8.0-12.4 | 1.7:1 | 15 | 1.7 | 0.8 | 16 | 6.0 | 4.0 | 2.0 | 0.5 | 0.25 | 12 |
| 2089-6805-00 | 12.4-18.0 | 1.7:1 | 15 | 2.2 | 0.8 | 24 | 10.0 | 4.0 | 2.0 | 0.5 | 0.25 | 12 |
| 2089-6807-00 | 2.0-8.0 | 1.6:1 | 15 | 2.0 | 1.2 | 16 | 12.0 | 4.0 | 2.0 | 0.5 | 0.25 | 12 |
| 2089-6808-00 | 2.0-18.0 | 1.8:1 | 15 | 3.3 | 1.8 | 24 | 30.0 | 4.5 | 5.0 | 1.0 | 0.50 | 15 |
| 2089-6810-00 | 7.0-18.0 | 1.8:1 | 15 | 2.5 | 1.5 | 24 | 10.0 | 4.0 | 2.0 | 0.5 | 0.25 | 12 |

* Maximum input power with output loads of VSWR $\leq 2.0:1$. Derate to 10% of listed value when arbitrarily terminated.