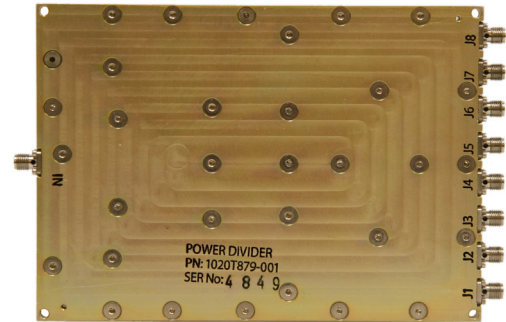


Broadband Wilkinson Combiners/Dividers

Product Features

- Broadband 500 MHz to 3000 MHz frequency range
- Can be used in both power combiner and divider applications
- In-phase, equal power division
- 2, 4, 6, or 8-way configurations
- Power rating of 20 Watts
- Passes DC to all ports
- Furnished with SMA female connectors
- Custom designs are possible, focusing on specific frequency range, electrical performance, power and connector style requirements



8-Way Combiner/Divider

Description and Application

UBS offers a unique solution to broadband power combining and division with an innovative line of 2-way through 8-way Wilkinson combiners/dividers.

A well-known advantage of Wilkinson dividers lies in providing improved input and output VSWR performance and superior isolation between the collecting ports. An outstanding feature of our design is that it is optimized for broadband operation over all wireless frequency bands from 500 MHz to 3000 MHz. This has been achieved by invoking a multi-section stripline construction together with a judicious electromagnetic optimization with the help of the state-of-the art 3D modeling software.

Other distinctive features include excellent amplitude and phase balance, low insertion loss, and power handling capability of up to 20 Watts at the common port.

| Model | Part Number | Description |
|--------------|-------------|------------------------|
| 1020T879-001 | 54890-01 | 8-Way Combiner/Divider |

| Model | Part Number | Description |
|--------------|-------------|------------------------|
| 1020T877-001 | 54893-01 | 6-Way Combiner/Divider |

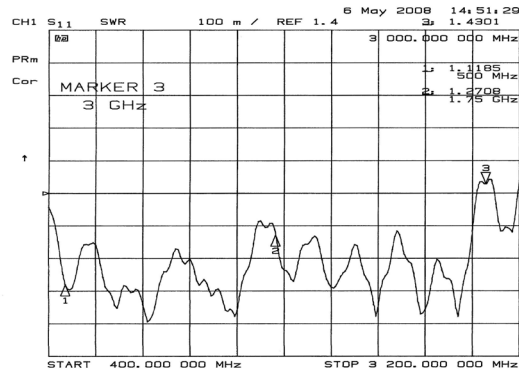
Broadband Wilkinson Combiners/Dividers



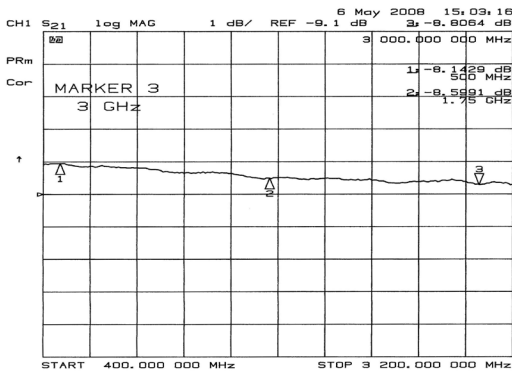
6-Way Combiner/Divider Product Specifications (specifications are subject to change without notice)

| | |
|------------------------------------|---|
| Number of Output Ports | 6 |
| Power Division | 1:6 Uniform Distribution |
| Frequency Band of Operation | 0.5 GHz - 3.0 GHz |
| Input Power * | 20 Watts |
| Insertion Loss | ≤ 1.3 dB |
| Input VSWR | ≤ 1.4:1 (0.5 GHz - 2.8 GHz) ≤ 1.55:1 (2.8 GHz - 3.0 GHz) |
| Amplitude Unbalance | ≤ ±0.5 dB |
| Phase Unbalance | ≤ ±5° |
| Isolation | ≥ 13 dB |
| Interface | Connectors: SMA (F) |

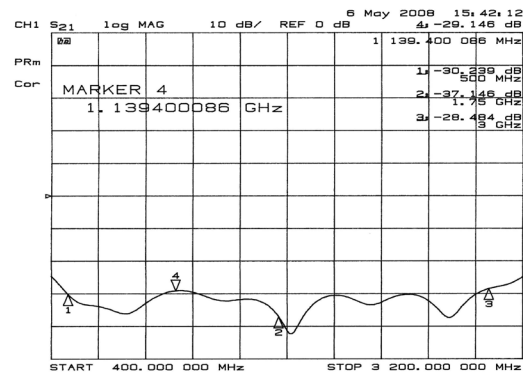
* All of the six output ports should be terminated with a load VSWR of 1.5:1 or better.



6-Way Combiner/Divider Input VSWR



6-Way Combiner/Divider Transmission, dB



6-Way Combiner/Divider Isolation, dB

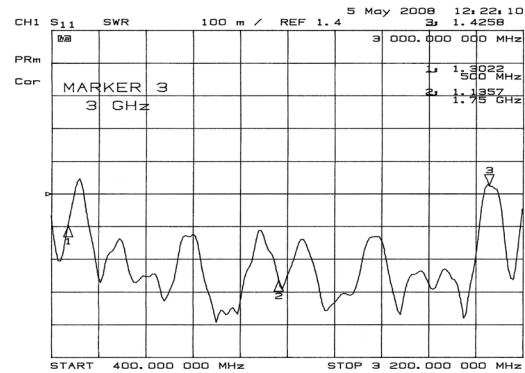


Broadband Wilkinson Combiner/Divider

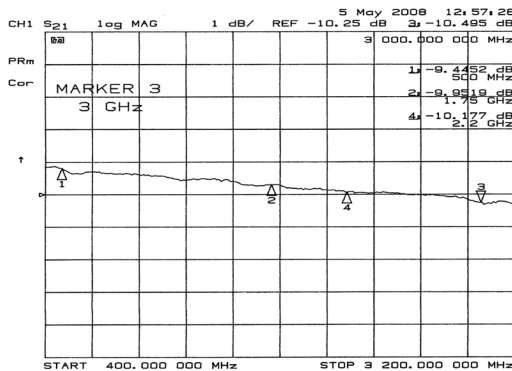
8-Way Combiner/Divider Product Specifications (specifications are subject to change without notice)

| | |
|------------------------------------|--|
| Number of Output Ports | 8 |
| Power Division | 1:8 Uniform Distribution |
| Frequency Band of Operation | 0.5 GHz - 3.0 GHz |
| Input Power * | 20 Watts |
| Insertion Loss | ≤ 1.25 dB (0.5 GHz to 2.1 GHz) ≤ 1.65 dB (2.1 GHz to 3.0 GHz) |
| Input VSWR | ≤ 1.4:1 (0.7 GHz - 2.8 GHz) ≤ 1.55:1 (0.5 GHz - 0.7 GHz) and (2.8 GHz - 3.0 GHz) |
| Amplitude Unbalance | ≤ ±0.3 dB |
| Phase Unbalance | ≤ ±3° |
| Isolation | 20 dB (typical), 17 dB (minimum) |
| Interface | Connectors: SMA (F) |

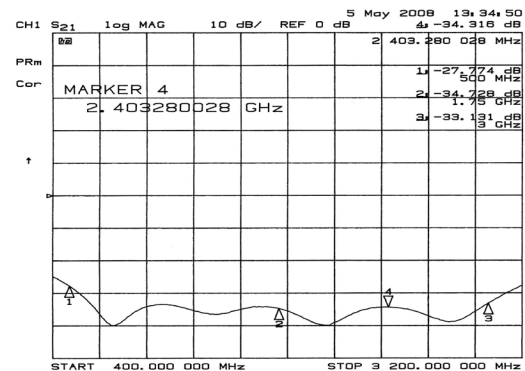
* All of the eight output ports should be terminated with a load VSWR of 2.0:1 or better.



8-Way Combiner/Divider Input VSWR



8-Way Combiner/Divider Transmission, dB



8-Way Combiner/Divider Isolation, dB