

Power Divider LT6-588P-6G

MTS-No.: 28501

Description

The Power Dividers of this series are designed to work between 500 MHz and 6000 MHz. They cover for example GSM, DECT, UMTS, Bluetooth, WiMAX, Wi-Fi (2.4G/5G) and all LTE frequency bands.

These units are Wilkinson dividers and can also be used as combiners.



Technical data:

1 RF-specifications:

| | | | | |
|------|--|--|-------------|-------------|
| 1.1 | Divider type | LT6, 6-way | | |
| 1.2 | Impedance | 50 Ω | | |
| 1.3 | Input power (see table) @ common port @ output ports 1 - 6 | 40 W max. @ VSWR ≤ 2.0 : 1 1 W max. each port | | |
| 1.4 | Frequency range | 500 - 6000 MHz | | |
| 1.5 | VSWR in | min. | typ. | max. |
| | @ 700 - 5850 MHz | | 1.3 | 1.8 |
| | @ 500 - 700 MHz | | 1.8 | 2.2 |
| | @ 5850 - 6000 MHz | | 1.5 | 1.8 |
| | VSWR out | | | |
| | @ 500 - 5850 MHz | | 1.2 | 1.5 |
| | @ 5850 - 6000 MHz | | 1.3 | 1.6 |
| 1.6 | Insertion loss (+7.8 dB) | | | |
| | @ 700 MHz | | 0.5 dB | 0.6 dB |
| | @ 5850 MHz | | 3.4 dB | 3.8 dB |
| 1.7 | IL derating / 200 MHz | | 0.11 dB | |
| 1.8 | Isolation (see plot) | | | |
| | @ 700 - 6000 MHz | 18 dB | 23 dB | |
| | @ 500 - 700 MHz | 13 dB | 18 dB | |
| 1.9 | Amplitude balance | | 0.15 dB | 0.4 dB |
| 1.10 | Phase balance | | 2.0° | 6.0° |

2 Connections:

| | | |
|-----|--------------------|--|
| 2.1 | RF-in- and outputs | 7x N female (7x SMA female available @ MTS-No.: 28500) |
|-----|--------------------|--|

3 General specifications:

| | | |
|-----|---|-----------------------------------|
| 3.1 | Operating temperature | -40 °C - +85 °C |
| 3.2 | Reference temperature of specifications | +25 °C |
| 3.3 | Dimensions (without connections) | 114.5 mm x 138 mm x 22 mm (LxWxH) |
| 3.4 | Case style | Milled aluminium enclosure |
| 3.5 | Colour | SurTec650 (Chrome alloy) |
| 3.6 | Weight | 860 grams |

4 Delivered parts:

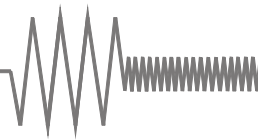
LT6-588P-6G
Datasheet

5 Comments:

| | |
|----------------|-----------|
| Warranty | 12 months |
| RoHS-compliant | Yes |

6 Recommended accessories:

RF-cables
Attenuators series PAH



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Typical measurements:

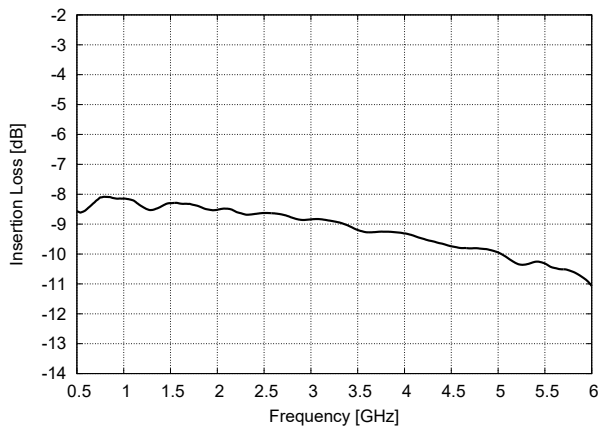


Fig. 1: Common port to output port insertion loss

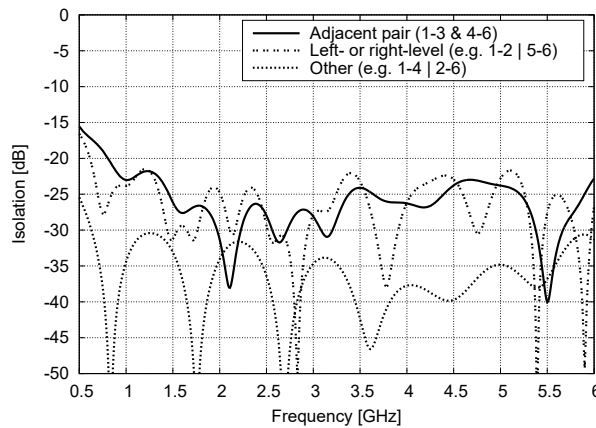


Fig. 2: Isolation between output ports

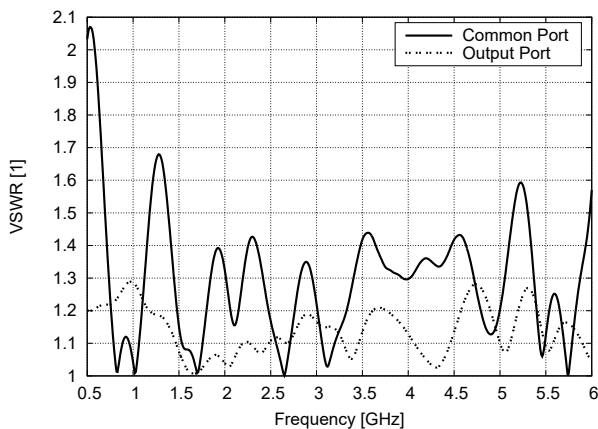


Fig. 3: VSWR for common and output ports

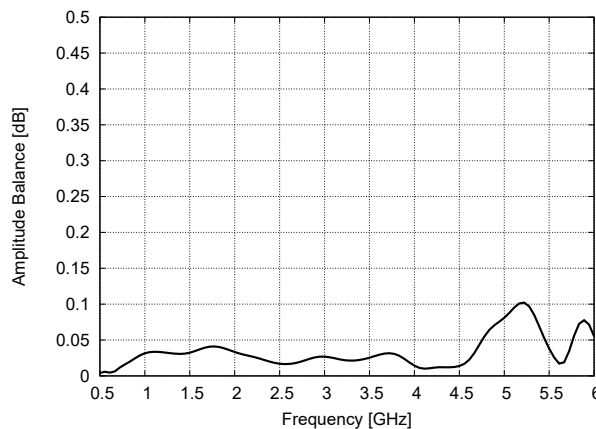


Fig. 4: Amplitude balance between output ports

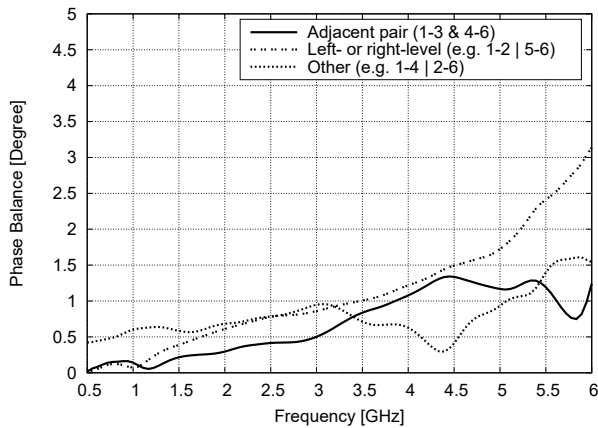
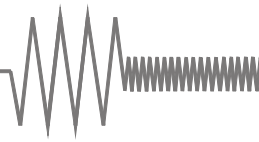


Fig. 5: Phase balance between output ports



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Power ratings:

| 6-way Power Divider input ratings | | |
|------------------------------------|---------------------|-----------------------|
| Load VSWR | In-phase (0°) | Out-of-phase (180°) |
| ≤ 1.2 : 1 | 40 Watts | 40 Watts |
| ≤ 2.0 : 1 | 40 Watts | 40 Watts |
| ∞ | 20 Watts | 6 Watts |
| 6-way Power Combiner input ratings | | |
| Input signals | 0° Phase Difference | 180° Phase Difference |
| Coherent | 6 x 6.6 Watts | 6 x 1 Watt |
| Non-coherent | 6 x 2 Watts | |

Views:

