

Surface Mount

Power Splitter/Combiner SXPS-4-13-75+

4 Way-0° 75Ω 5 to 1300 MHz

The Big Deal

- Wideband, 5 to 1300 MHz
- High isolation, 24 dB
- Low insertion loss, 1.5 dB
- Low unbalance, 0.25 dB, 1.0°



CASE STYLE: HF1485

Product Overview

Mini-Circuits' SXPS-4-15-75+ is a 75Ω 4-way 0° surface-mount power splitter/combiner covering the 5 to 1300 MHz frequency range, supporting bandwidth requirements for DOCSIS® 3.1 systems and equipment, as well as other broadband applications. This model can handle up to 0.25W RF input power as a splitter, and provides low insertion loss and low phase and amplitude unbalance. It comes housed in a miniature, shielded package (0.44 x 0.74 x 0.19") with wraparound terminations for excellent solderability.

Key Features

| Feature | Advantages |
|---|---|
| Wideband, 5 to 1300 MHz | Suitable for many broadband applications including DOCSIS® 3.1 systems and equipment, VHF/UHF, CATV, cellular, and more. |
| Low insertion loss, 1.5 dB | The combination of 0.25W power handling and low insertion loss makes it a suitable candidate for distributing signals while maintaining signal power. |
| Good isolation, 24 dB | Minimizes interference between ports |
| Low unbalance: <ul style="list-style-type: none">• 0.25 dB amplitude unbalance• 1.0° phase unbalance | This model produces nearly equal output signals, making it ideal for use in parallel path /multichannel systems. |
| Good VSWR, 1.2:1 typ. | Provides excellent thru-path transmission with low signal reflection. |

Notes

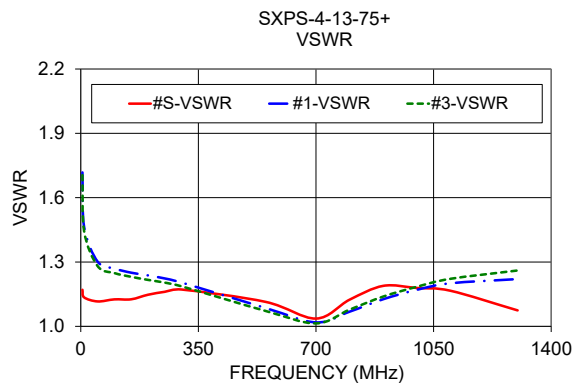
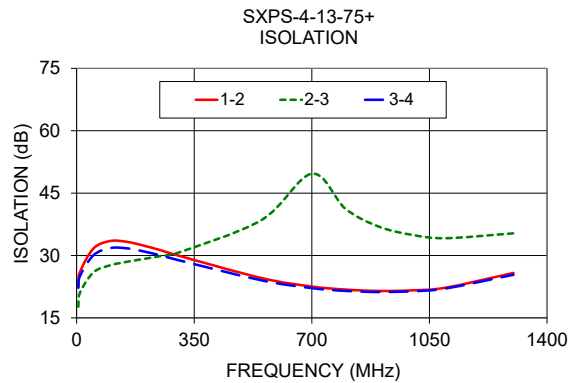
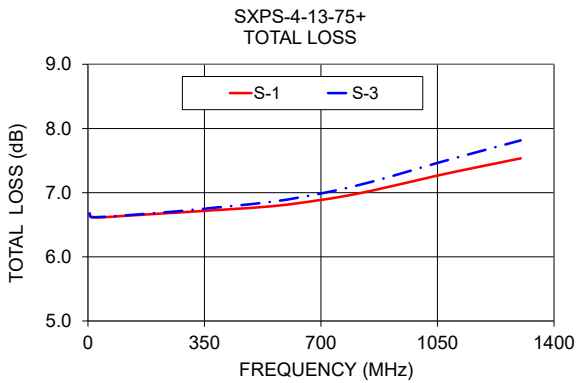
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Typical Performance Data

| Freq. (MHz) | Total Loss ¹ (dB) | | | | Amp. Unbal. (dB) | Isolation (dB) | | | Phase Unbal. (deg.) | VSWR S | VSWR 1 | VSWR 2 | VSWR 3 | VSWR 4 |
|-------------|------------------------------|------|------|------|------------------|----------------|-------|-------|---------------------|--------|--------|--------|--------|--------|
| | S-1 | S-2 | S-3 | S-4 | | 1-2 | 2-3 | 3-4 | | | | | | |
| 5.0 | 6.67 | 6.68 | 6.68 | 6.68 | 0.01 | 22.52 | 17.71 | 22.23 | 0.01 | 1.17 | 1.72 | 1.72 | 1.71 | 1.70 |
| 10.0 | 6.62 | 6.62 | 6.62 | 6.63 | 0.01 | 26.03 | 21.09 | 25.07 | 0.03 | 1.13 | 1.46 | 1.46 | 1.44 | 1.44 |
| 50.0 | 6.62 | 6.63 | 6.62 | 6.63 | 0.01 | 31.68 | 25.95 | 30.06 | 0.04 | 1.12 | 1.30 | 1.30 | 1.28 | 1.28 |
| 100.0 | 6.63 | 6.65 | 6.64 | 6.65 | 0.01 | 33.49 | 27.65 | 31.79 | 0.09 | 1.13 | 1.27 | 1.27 | 1.25 | 1.25 |
| 150.0 | 6.65 | 6.66 | 6.66 | 6.67 | 0.02 | 33.28 | 28.50 | 31.72 | 0.14 | 1.13 | 1.25 | 1.25 | 1.23 | 1.23 |
| 200.0 | 6.67 | 6.68 | 6.68 | 6.68 | 0.01 | 32.37 | 29.18 | 30.98 | 0.20 | 1.15 | 1.24 | 1.24 | 1.22 | 1.22 |
| 250.0 | 6.68 | 6.70 | 6.70 | 6.70 | 0.02 | 31.27 | 29.86 | 30.02 | 0.25 | 1.16 | 1.22 | 1.22 | 1.20 | 1.20 |
| 300.0 | 6.70 | 6.72 | 6.72 | 6.72 | 0.03 | 30.05 | 30.62 | 28.94 | 0.31 | 1.17 | 1.20 | 1.20 | 1.19 | 1.19 |
| 550.0 | 6.79 | 6.82 | 6.86 | 6.83 | 0.07 | 24.58 | 38.52 | 24.03 | 0.56 | 1.11 | 1.09 | 1.09 | 1.07 | 1.08 |
| 700.0 | 6.89 | 6.93 | 6.99 | 6.93 | 0.10 | 22.54 | 49.66 | 22.16 | 0.73 | 1.04 | 1.02 | 1.00 | 1.01 | 1.01 |
| 800.0 | 6.97 | 7.03 | 7.10 | 7.02 | 0.13 | 21.81 | 41.23 | 21.49 | 0.78 | 1.12 | 1.07 | 1.06 | 1.08 | 1.05 |
| 900.0 | 7.09 | 7.15 | 7.24 | 7.13 | 0.15 | 21.48 | 36.92 | 21.22 | 0.84 | 1.19 | 1.13 | 1.12 | 1.14 | 1.10 |
| 1000.0 | 7.21 | 7.29 | 7.39 | 7.25 | 0.18 | 21.63 | 34.94 | 21.41 | 0.93 | 1.18 | 1.17 | 1.17 | 1.18 | 1.14 |
| 1100.0 | 7.32 | 7.41 | 7.54 | 7.37 | 0.21 | 22.29 | 34.17 | 22.10 | 1.00 | 1.17 | 1.20 | 1.22 | 1.22 | 1.19 |
| 1300.0 | 7.53 | 7.66 | 7.81 | 7.58 | 0.28 | 25.81 | 35.33 | 25.37 | 1.28 | 1.07 | 1.22 | 1.25 | 1.26 | 1.21 |

1. Total Loss = Insertion Loss + 6 dB splitter theoretical loss.



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