

Four-Way 0° Power Splitter Combiner 0.81–0.96 GHz



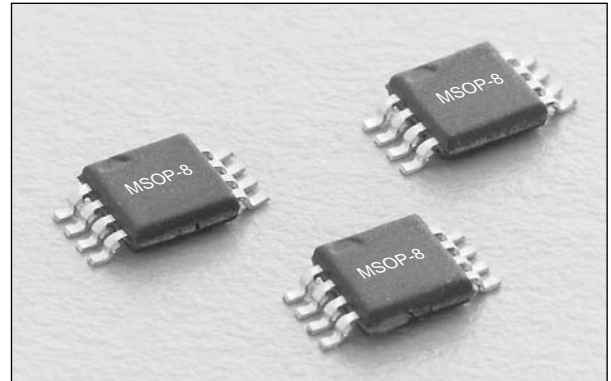
PD4W09-59

Features

- Low Cost
- Low Profile
- Available in Small MSOP-8 Package
- Tape & Reel

Description

The PD4W09-59 is a monolithic four-way in-phase hybrid junction tuned for the 0.81–0.96 GHz band. It offers low loss, high isolation, good input/output matching and exceptional phase/amplitude balance. It is available in the MSOP-8 leaded surface mount package.



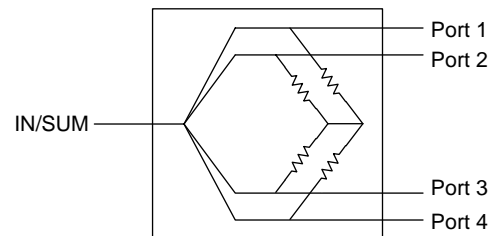
Electrical Specifications at 25°C

| Parameter | Min. | Typ. | Max. | Unit |
|--------------------------------|------|-------|-------|------|
| Frequency | 0.81 | | 0.96 | GHz |
| Insertion Loss Less 6 dB Split | | 1.3 | 1.5 | dB |
| Isolation | 20 | 23 | | dB |
| Input VSWR | | 1.2:1 | 1.5:1 | |
| Output VSWR | | 1.2:1 | 1.5:1 | |
| Amplitude Balance | | ±0.4 | ±0.6 | dB |
| Phase Balance | | ±6 | ±8 | Deg. |

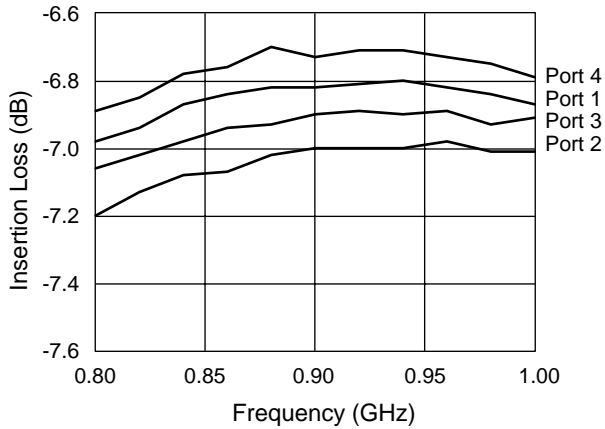
Pin Out



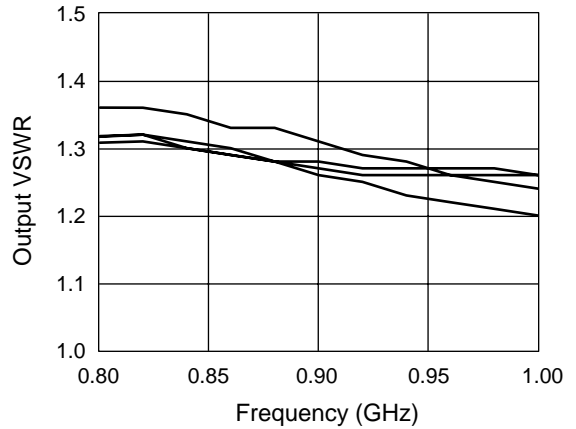
Block Diagram



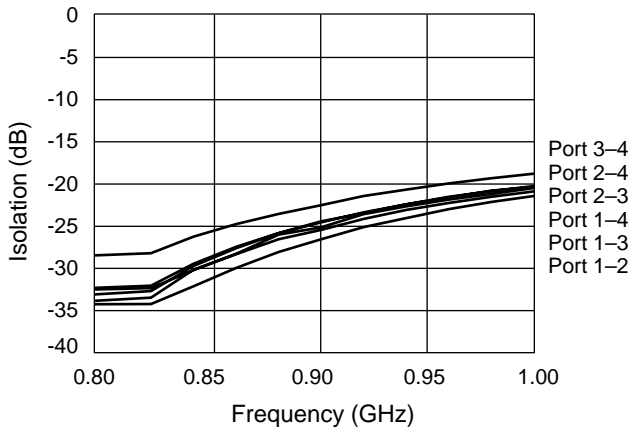
Typical Performance Data



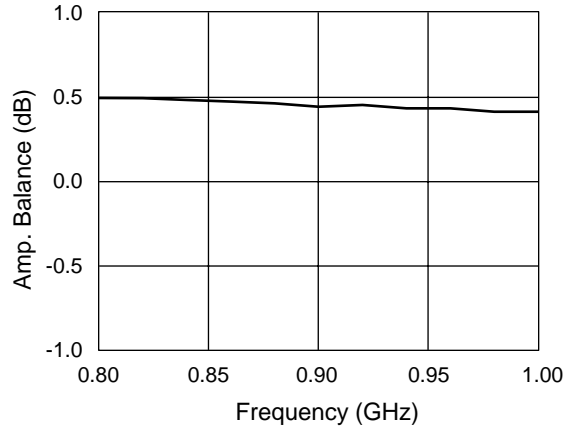
Insertion Loss vs. Frequency



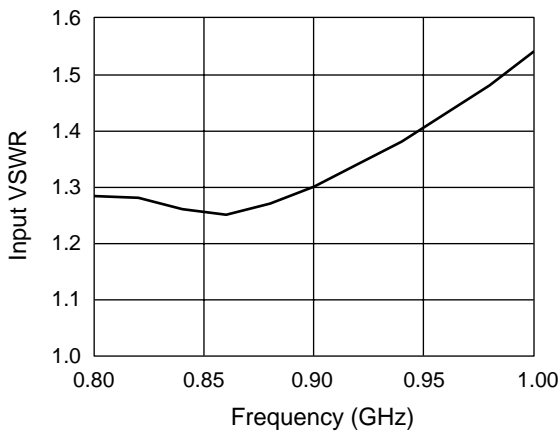
Output VSWR vs. Frequency



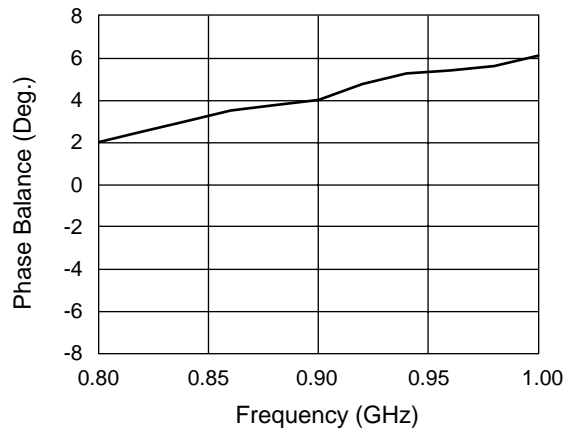
Isolation vs. Frequency



Amp. Balance vs. Frequency

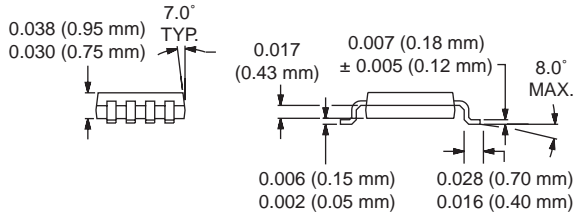
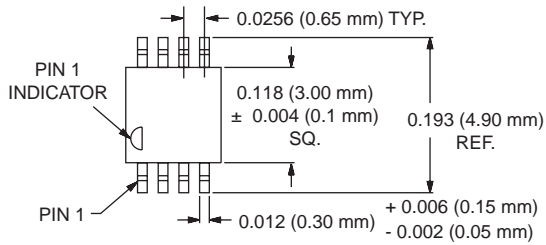


Input VSWR vs. Frequency



Phase Balance vs. Frequency

MSOP-8

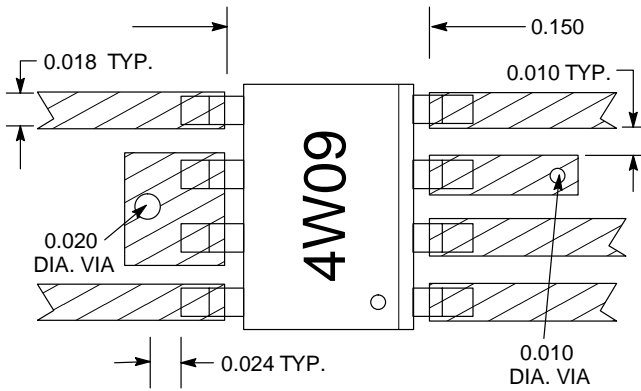


Absolute Maximum Ratings

| Characteristic | Value |
|--------------------------|-----------------|
| Input Power ¹ | +1.5 W CW |
| Input Power ² | +0.375 CW |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -65°C to +150°C |

1. When used as a power divider with a 2.0:1 maximum VSWR on all ports.
 2. When used as a power combiner with a 2.0:1 maximum VSWR on all ports.

Recommended Board Layout



Material is 10 mil FR4