

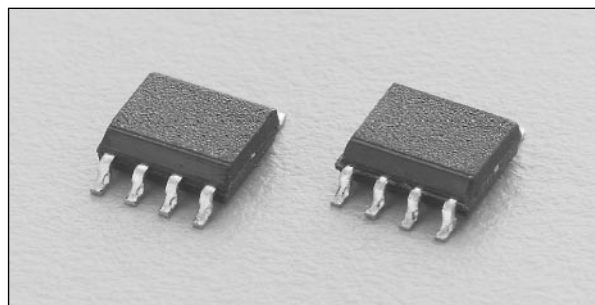
# Two-Way 0° Power Splitter Combiner 1.42–1.66 GHz



PD15-12

## Features

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



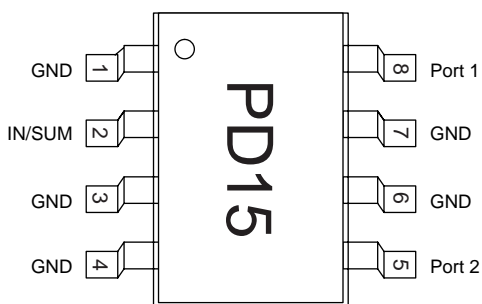
## Description

The PD15-12 is a monolithic two-way in-phase hybrid junction tuned for the 1.42–1.66 GHz band. It offers low loss, high isolation, good input/output matching and exceptional phase/amplitude balance. It is available in the SOIC-8 leaded surface mount package.

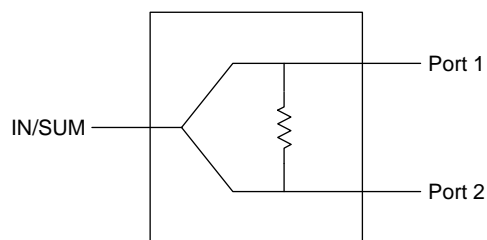
## Electrical Specifications at 25°C

Parameter	Min.	Typ.	Max.	Unit
Frequency	1.42		1.66	GHz
Insertion Loss Less 3 dB Split		0.4	0.6	dB
Isolation	20	23		dB
Input VSWR		1.2:1	1.5:1	
Output VSWR		1.2:1	1.4:1	
Amplitude Balance		±0.1	±0.2	dB
Phase Balance		±1.0	±3.0	Deg.

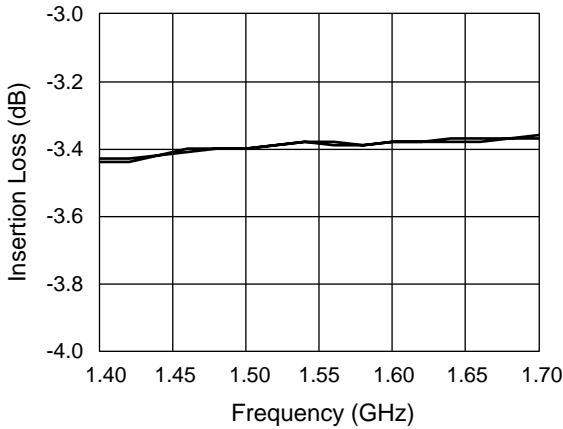
## Pin Out



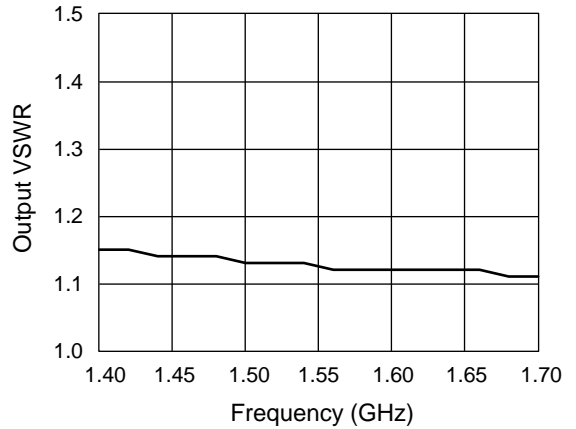
## Block Diagram



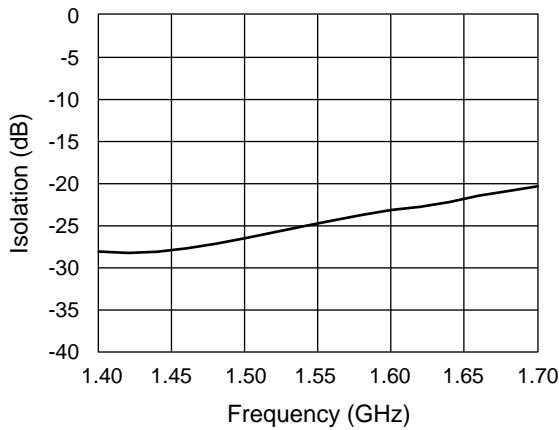
Typical Performance Data



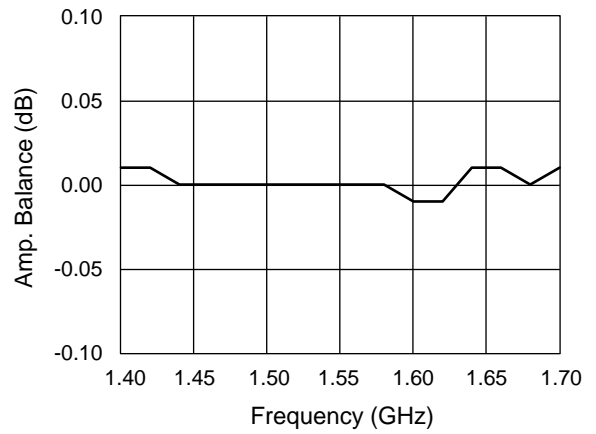
Insertion Loss vs. Frequency



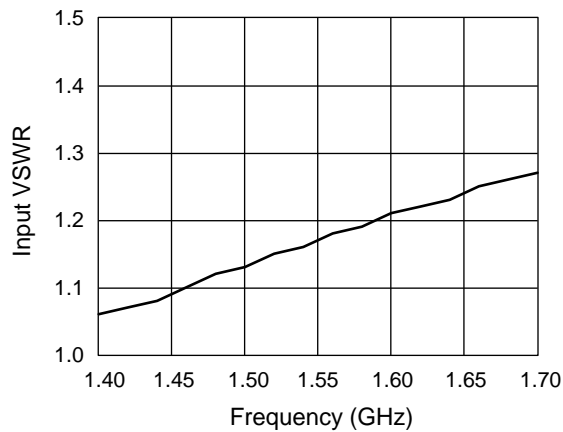
Output VSWR vs. Frequency



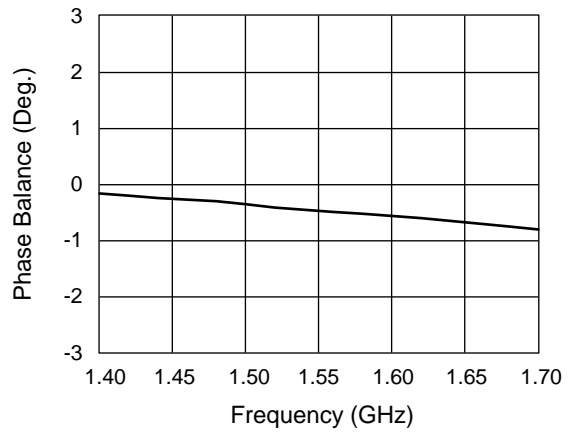
Isolation vs. Frequency



Amp. Balance vs. Frequency



Input VSWR vs. Frequency



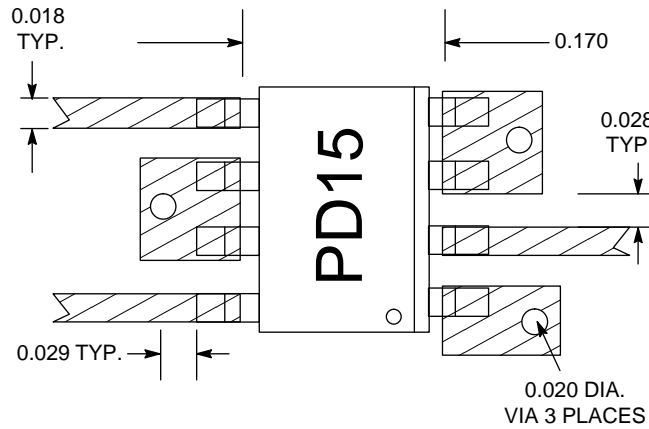
Phase Balance vs. Frequency

### Absolute Maximum Ratings

Characteristic	Value
Input Power <sup>1</sup>	1.5 W CW
Input Power <sup>2</sup>	0.75 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

### SOIC-8

