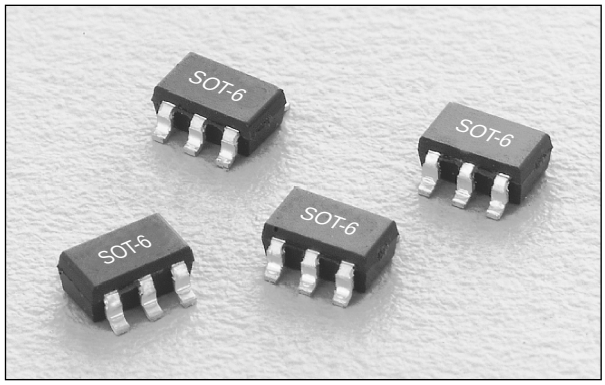
Two-Way 0° Power Splitter Combiner 1.71–1.99 GHz

Alpha

PD19-73

Features

- Low Cost
- Low Profile
- Available in Small SOT-6 Lead Package
- Tape & Reel
- Pin Compatible with PD09-73



Description

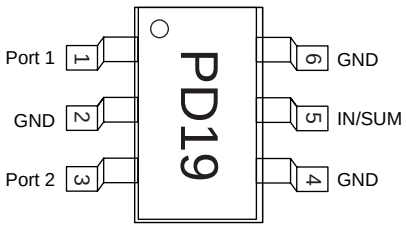
The PD19-73 is a monolithic two-way in-phase hybrid junction tuned for the 1.71–1.99 GHz band. It offers low loss, high isolation, good input/output matching and exceptional phase/amplitude balance. It is available in the SOT-6 lead surface mount package.

The PD19-73 was designed to be pin-to-pin compatible with the PD09-73 Power Splitter/Combiner. This allows similar board layout for Power Splitter/Combiners in the frequency ranges covering 810–960 MHz and 1.7–1.99 GHz. The PD18-73 also covers 1.71–1.99 GHz but with different pin connections.

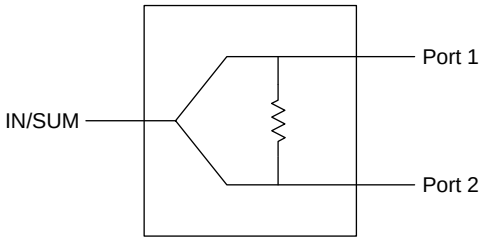
Electrical Specifications at 25°C

Parameter	Min.	Typ.	Max.	Unit
Frequency	1.71		1.99	GHz
Insertion Loss Less 3 dB Split		0.55	0.70	dB
Isolation	20	25		dB
Input VSWR		1.3:1	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.

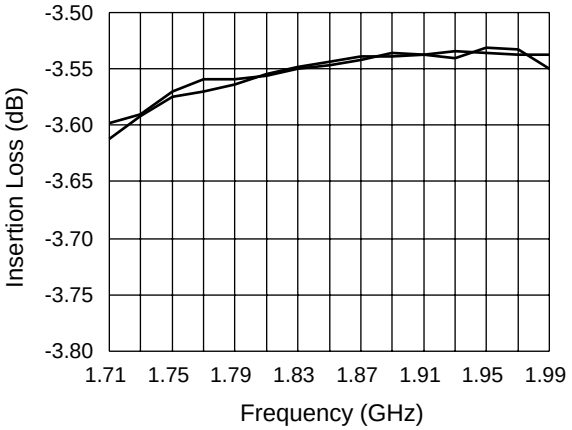
Pin Out



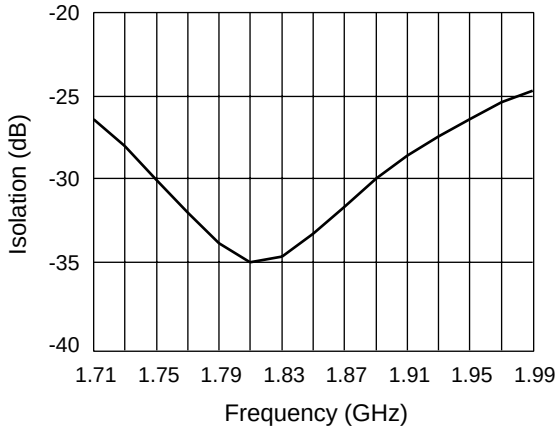
Block Diagram



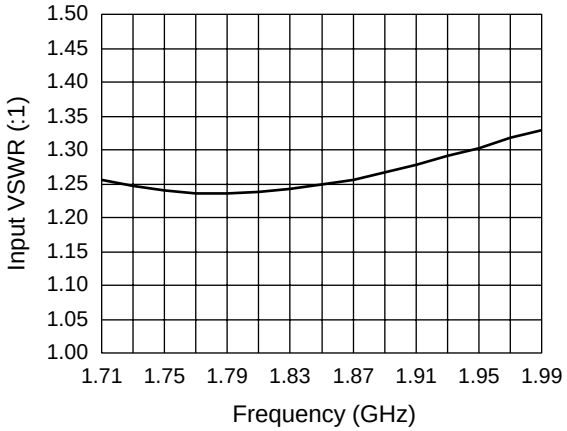
Typical Performance Data



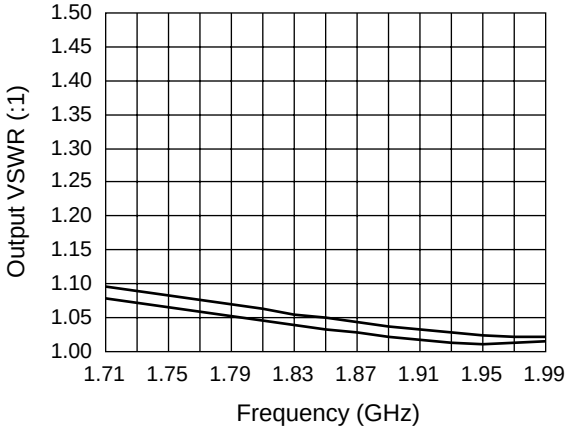
Insertion Loss vs. Frequency



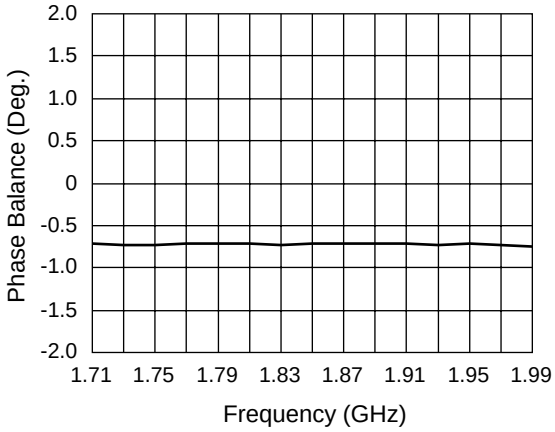
Isolation vs. Frequency



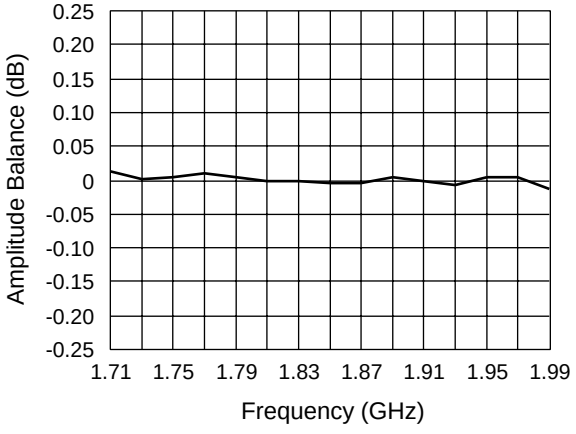
Input VSWR vs. Frequency



Output VSWR vs. Frequency



Phase Balance vs. Frequency



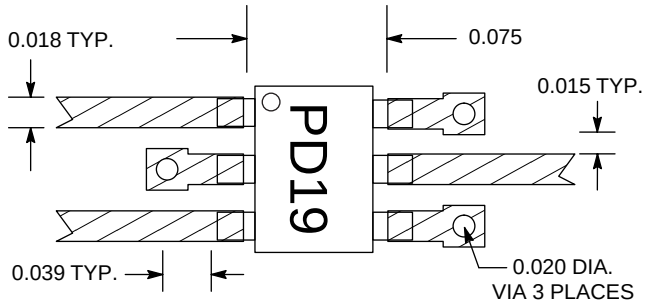
Amplitude Balance vs. Frequency

Absolute Maximum Ratings

Characteristic	Value
Input Power[1]	+1.5 W CW
Input Power[2]	+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

SOT-6