

DATA SHEET

PD19-73LF: Two-Way 0° Power Splitter/ Combiner 1.71–1.99 GHz

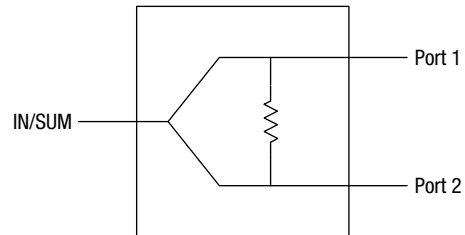
Features

- Low cost
- Low profile
- Available in small SOT-6 package
- Available on tape and reel
- Pin compatible with PD09-73
- Available lead (Pb)-free and RoHS-compliant MSL-1 @ 260 °C per JEDEC J-STD-020

Description

The PD19-73LF 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 surface mount package.

Block Diagram



The PD19-73LF was designed to be pin-to-pin compatible with the PD09-73LF 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 PD18-73LF also covers 1.71–1.99 GHz but with different pin connections.

NEW Skyworks offers lead (Pb)-free, RoHS (Restriction of Hazardous Substances)-compliant packaging.

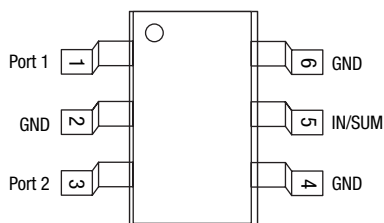


Electrical Specifications at 25 °C

Z₀ = 50 Ω, unless otherwise noted

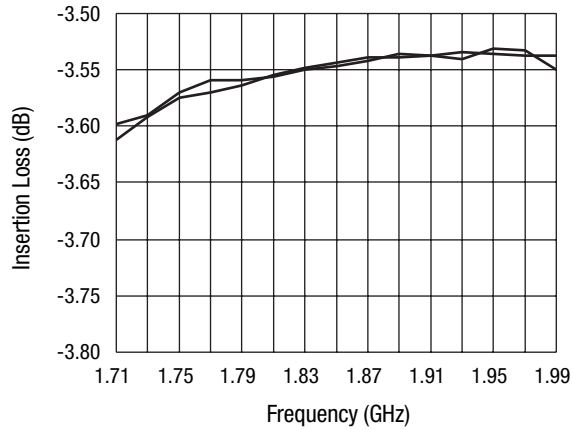
Parameter	Min.	Typ.	Max.	Unit
Frequency	1.71		1.99	GHz
Insertion loss less 3 dB split		0.55	0.7	dB
Isolation	20	25		dB
Input VSWR		1.3:1	1.5:1	
Output VSWR		1.2:1	1.4:1	
Amplitude balance		±0.1	±0.2	dB
Phase balance		±1	±3	Deg.

Pin Out

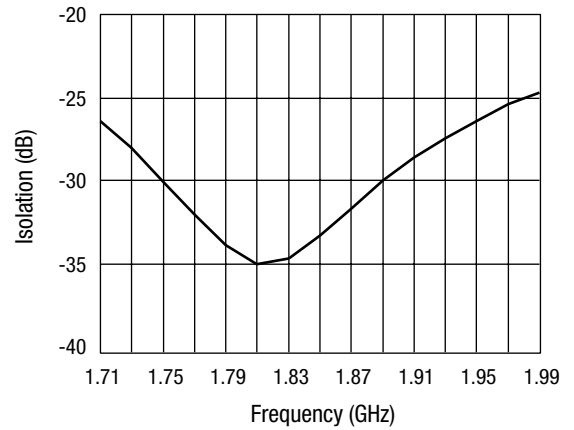


Typical Performance Data

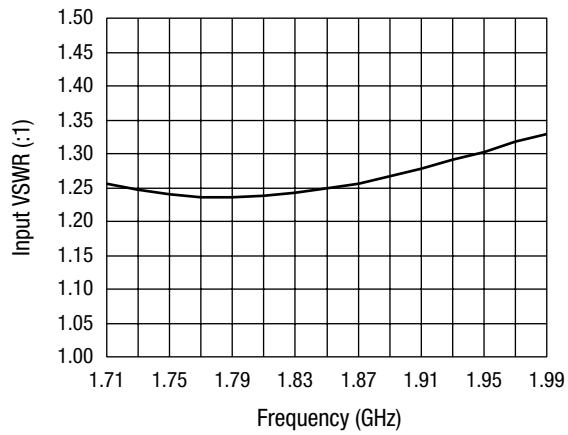
$Z_0 = 50 \Omega$, unless otherwise noted



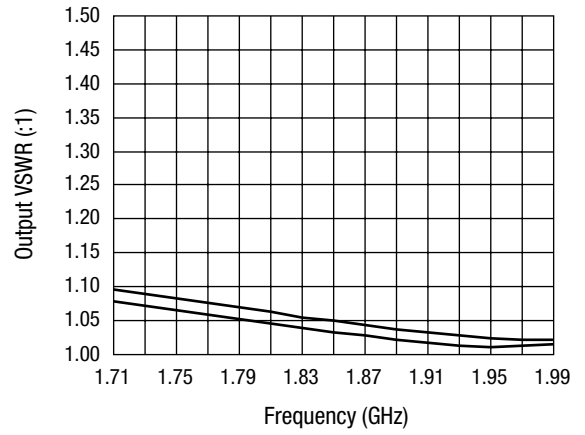
Insertion Loss vs. Frequency



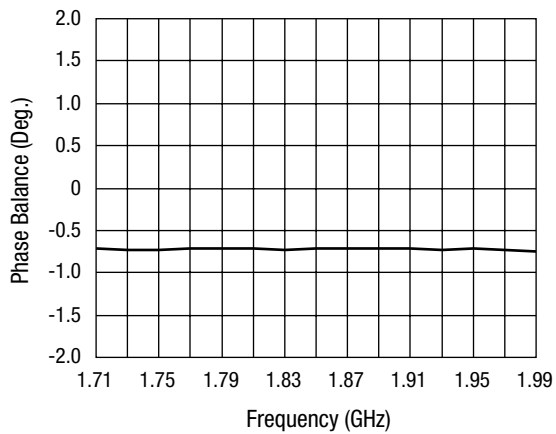
Isolation vs. Frequency



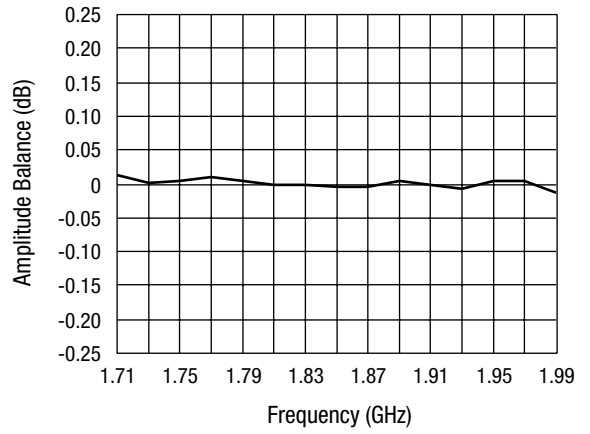
Input VSWR vs. Frequency



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.
 Performance is guaranteed only under the conditions listed in the specifications table and is not guaranteed under the full range(s) described by the Absolute Maximum specifications. Exceeding any of the absolute maximum/minimum specifications may result in permanent damage to the device and will void the warranty.

CAUTION: Although this device is designed to be as robust as possible, ESD (Electrostatic Discharge) can damage this device. This device must be protected at all times from ESD. Static charges may easily produce potentials of several kilovolts on the human body or equipment, which can discharge without detection. Industry-standard ESD precautions must be employed at all times.

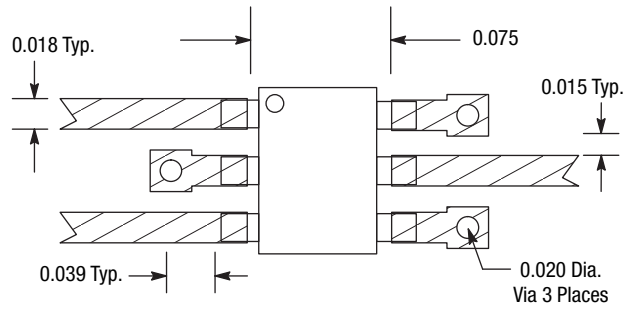
Recommended Solder Reflow Profiles

Refer to the [“Recommended Solder Reflow Profile”](#) Application Note.

Tape and Reel Information

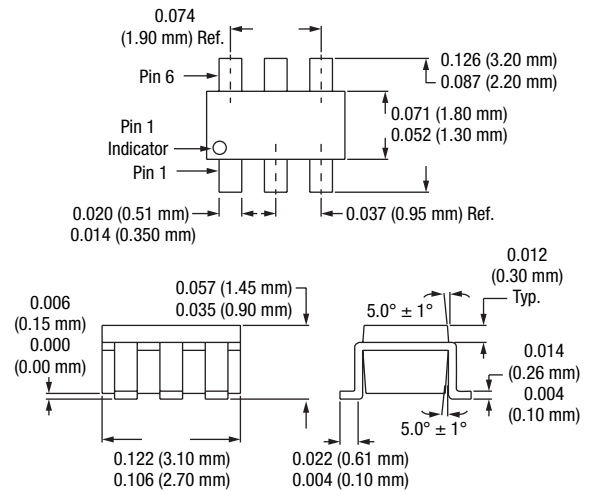
Refer to the [“Discrete Devices and IC Switch/Attenuators Tape and Reel Package Orientation”](#) Application Note.

Recommended Board Layout



Material is 10 mil FR4

SOT-6



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