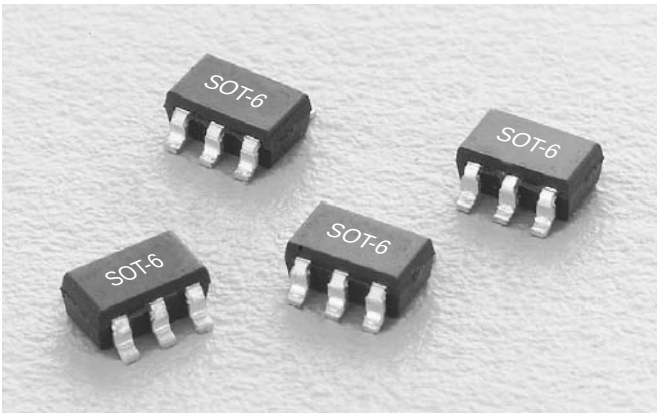
DATA SHEET

PD16-73LF: Two-Way 0° Power Splitter Combiner 1.42–1.66 GHz

Features

- Low cost
- Low profile
- Available in small SOT-6 lead package
- Available on tape and reel
- Footprint consistent with other parts in the "PD" series
- Available lead (Pb)-free and RoHS-compliant MSL-1 @ 260 °C per JEDEC J-STD-020



Description

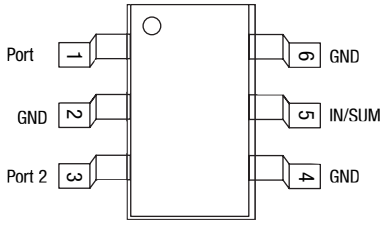
The PD16-73LF is a monolithic two-way in-phase hybrid junction tuned for the 1.42–1.66 GHz band. It offers low loss, high isolation, good input/output matching and exceptional phase/amplitude balance. It is available in the SOT-6 lead surface mount package. The footprint of the PD16-73LF is the same as the other power dividers in this package style and series to allow for consistent assembly setup.

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

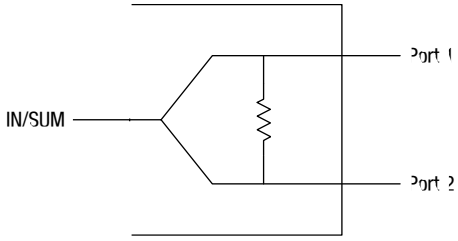
Electrical Specifications at 25 °C

Parameter	Min.	Typ.	Max.	Unit
Frequency	1.42		1.66	GHz
Insertion loss less 3 dB split		0.4	0.6	dB
Isolation	18	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	±3	Deg.

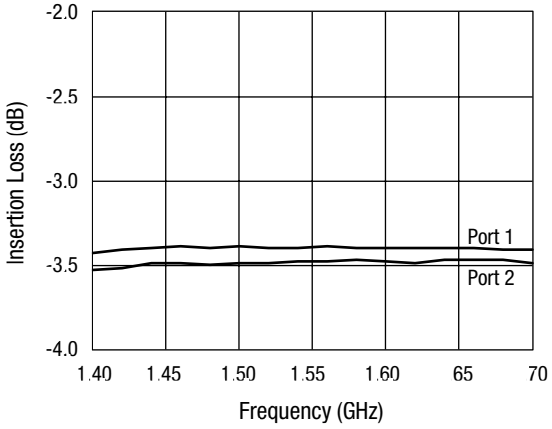
Pin Out



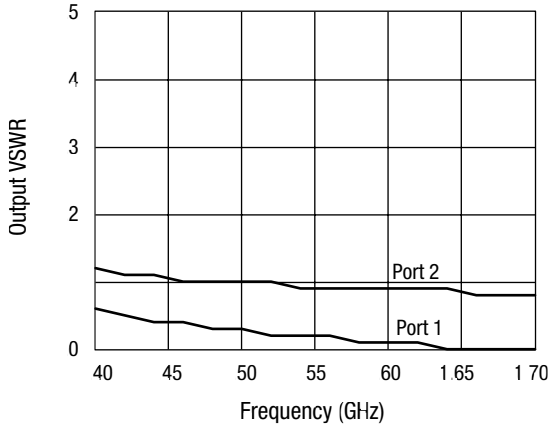
Block Diagram



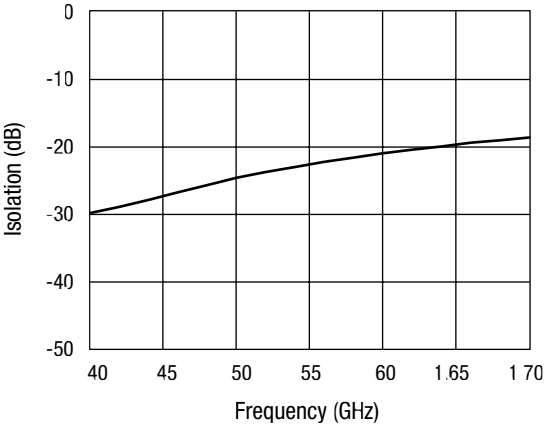
Typical Performance Data



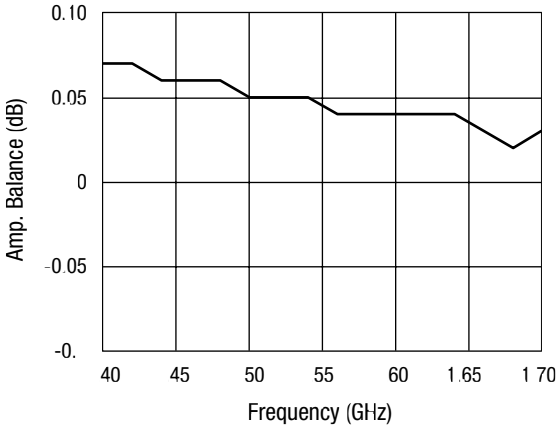
Insertion Loss vs. Frequency



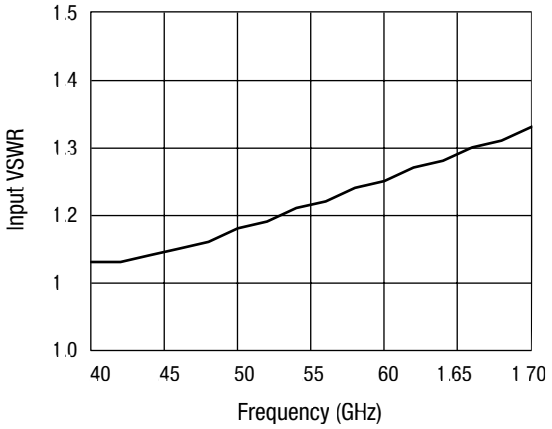
Output VSWR vs. Frequency



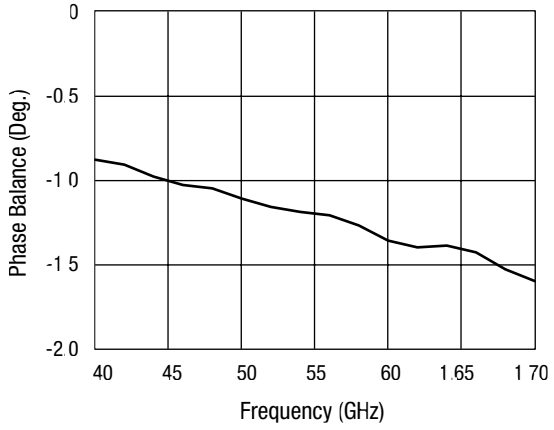
Isolation vs. Frequency



Amp. Balance vs. Frequency



Input VSWR vs. Frequency



Phase Balance vs. Frequency

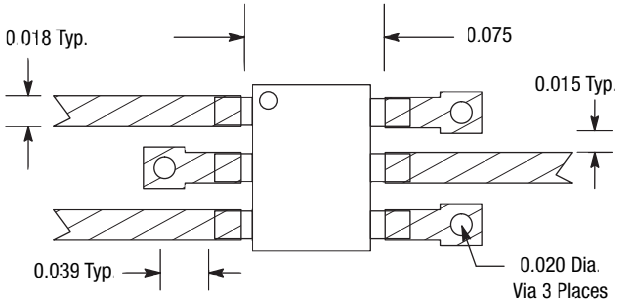
Absolute Maximum Ratings

Characteristic	Value
Input power[1]	1.5 W CW
Input power[2]	0.75 CW
Operating temperature	-40 °C to +85 °C
Storage temperature	-65 °C to +15 0°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.

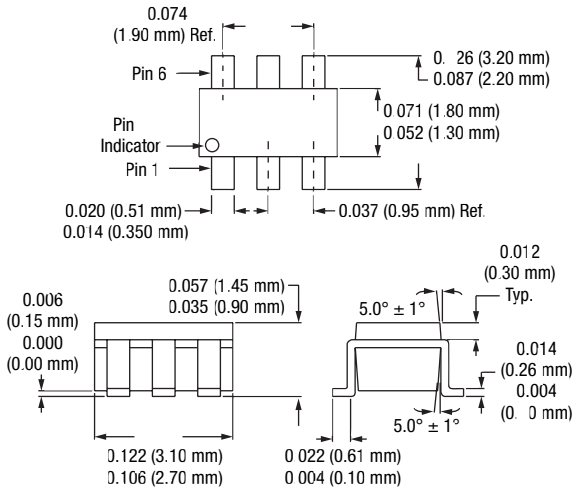
CAUTION: *Although this device is designed to be as robust as possible, ESD (Electrostatic Discharge) can damage this device. This device must be protected at all times from ESD. Static charges may easily produce potentials of several kilovolts on the human body or equipment, which can discharge without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

Recommended Board Layout



Material is 10 mil FR4

SOT-6



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.

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