

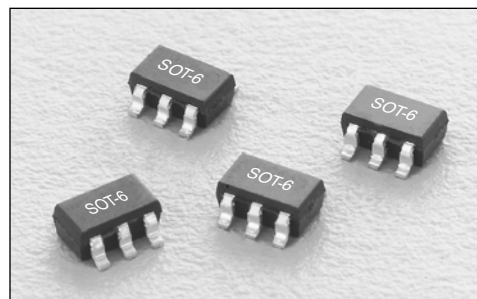
90 Degree Hybrid 2.1–2.3 GHz



HY22-73

Features

- Low Cost
- Low Profile
- Small SOT-6 Package
- Tape & Reel



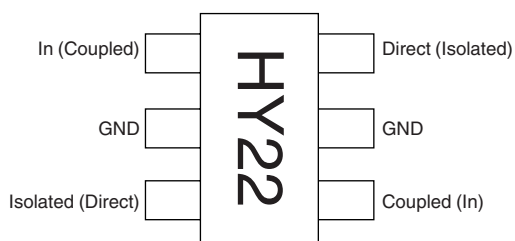
Description

The HY22-73 is a 50 Ω , 90 degree hybrid tuned for the 2.1–2.3 GHz band. The monolithic circuitry is 100% passive and offers low loss, high isolation and exceptional phase/amplitude balance. It is available in the SOT-6 leaded surface mount package.

Electrical Specifications at 25°C, 50 Ω System

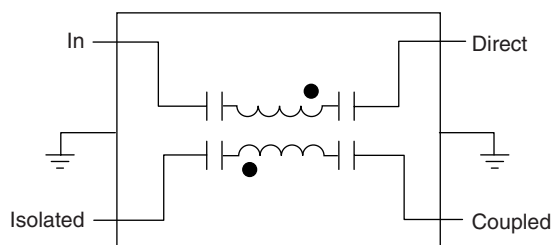
Parameter	Min.	Typ.	Max.	Unit
Frequency	2.1		2.3	GHz
Insertion Loss Less 3 dB Split		0.55	0.7	dB
Isolation	20.0	23.00		dB
Input VSWR		1.2:1	1.5:1	
Output VSWR		1.2:1	1.5:1	
Amplitude Balance		± 0.40	± 1.1	dB
Phase Balance		± 2.00	± 4.0	Deg.

Pin Out

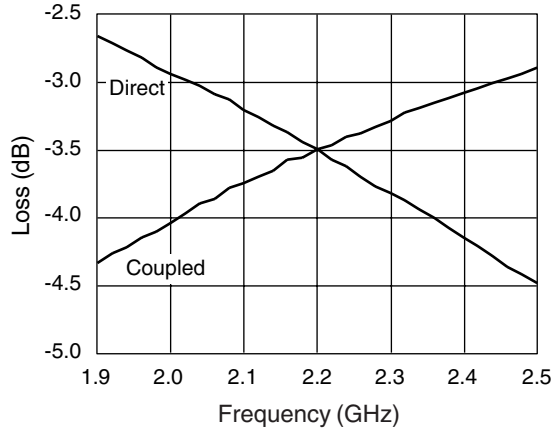


Note: This device is symmetrical such that the "In" port can be swapped with the "coupled" port.
HY22 is the part marking.

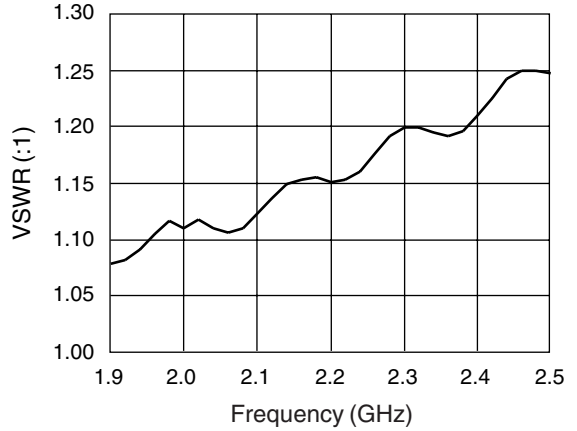
Block Diagram



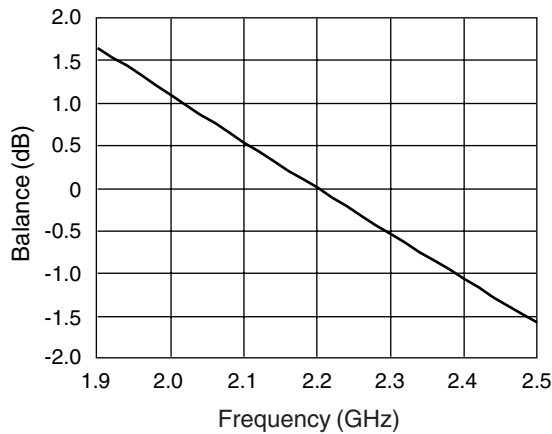
Typical Performance Data



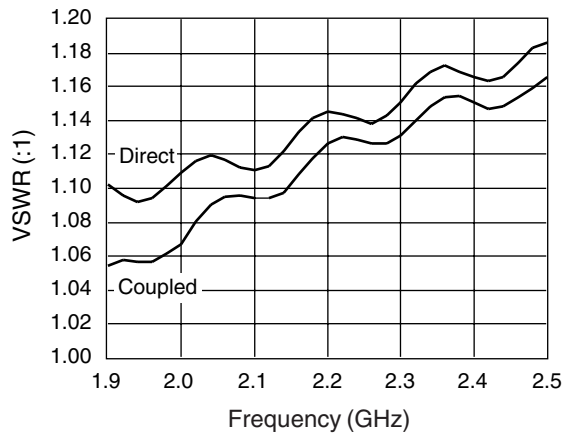
Path Losses vs. Frequency



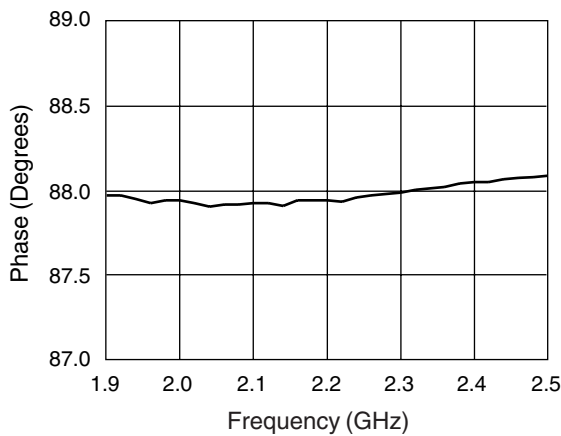
Input VSWR vs. Frequency



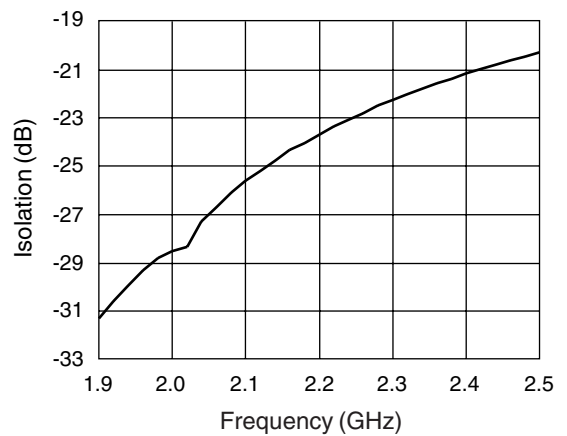
Amplitude Balance vs. Frequency



Output VSWR vs. Frequency

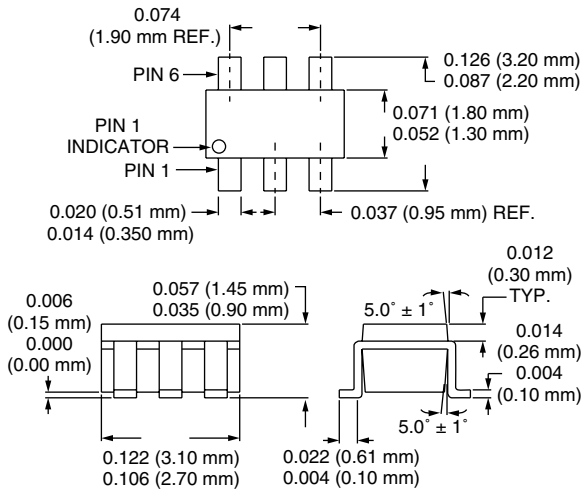


Coupled-Direct Phase vs. Frequency



Isolation vs. Frequency

SOT-6

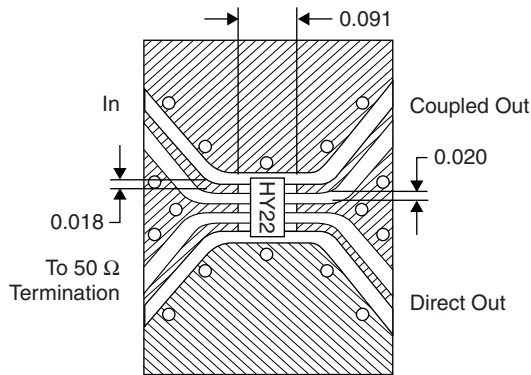


Absolute Maximum Ratings

Characteristic	Value
Input Power ¹	2 W CW
Input Power ²	1 W 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 FR-4. Dimensions are in inches.