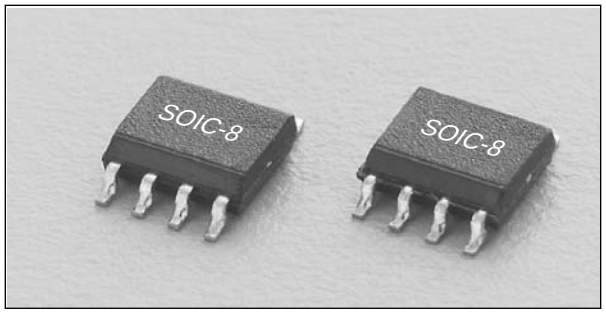
90 Degree Hybrid 1.71–1.88 GHz

HY17-12

Features

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



Description

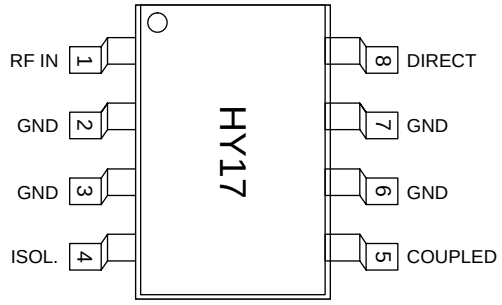
The HY17-12 is a 90 degree hybrid tuned for the 1.71–1.88 GHz band. The monolithic circuitry is 100% passive and offers low loss, high isolation and exceptional phase/amplitude balance. It is available in the SOIC-8 leaded surface mount package.

Electrical Specifications at 25°C

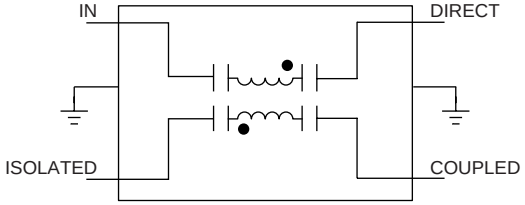
Parameter	Min.	Typ.	Max.	Unit
Frequency	1.71		1.88	GHz
Insertion Loss[1]		.5	.6	dB
Isolation	19	20		dB
VSWR All Ports		1.2:1	1.3:1	
Amplitude Balance		±.5	±1.0	dB
Phase Balance		±1.0	±2.0	Deg.

1. Less 3 dB power split.

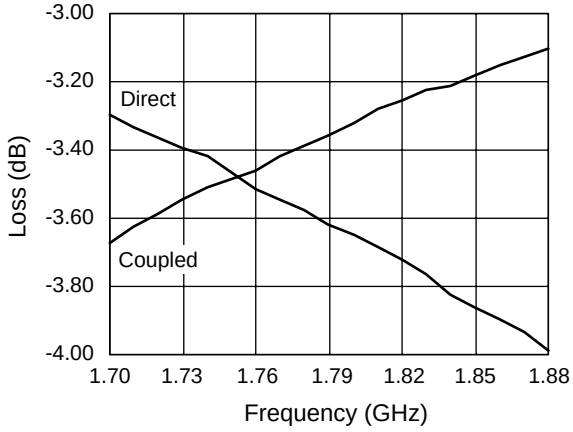
Pin Out



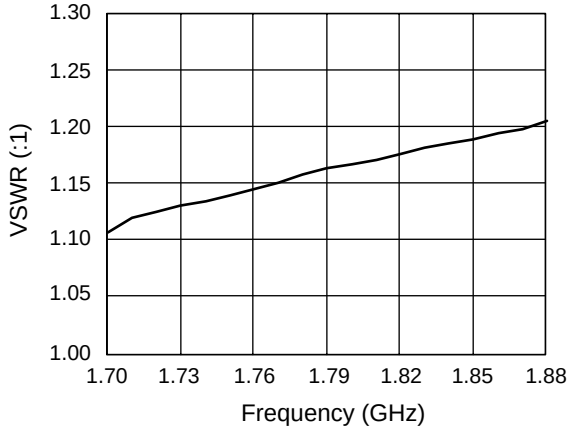
Block Diagram



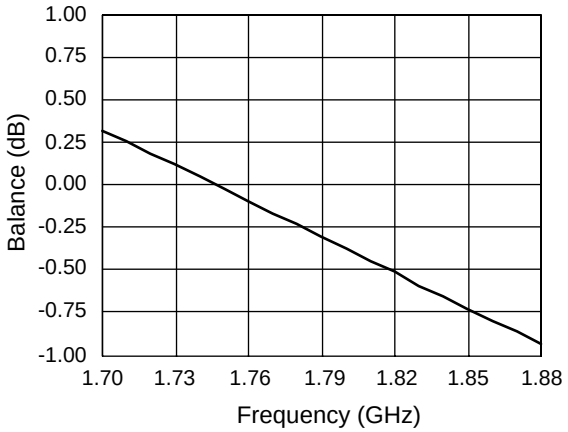
Typical Performance Data



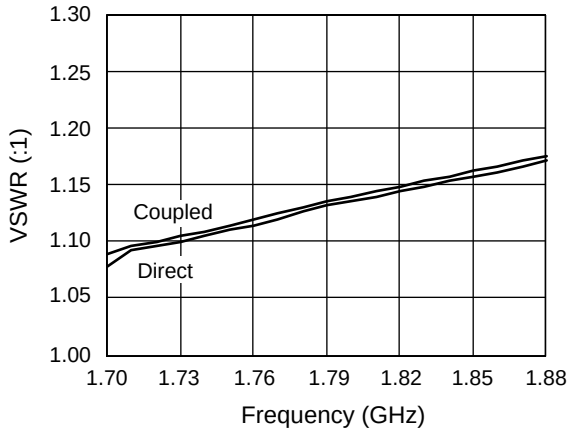
Path Losses vs. Frequency



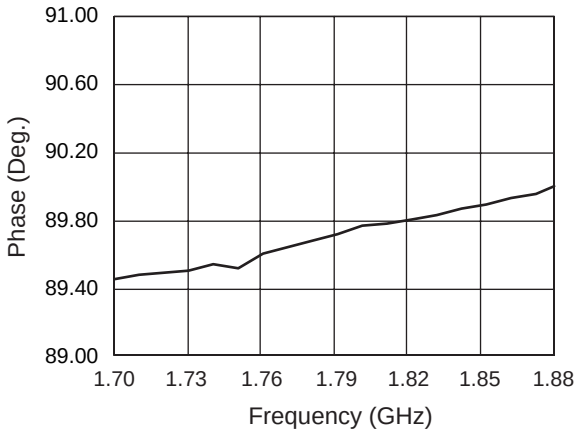
Input VSWR vs. Frequency



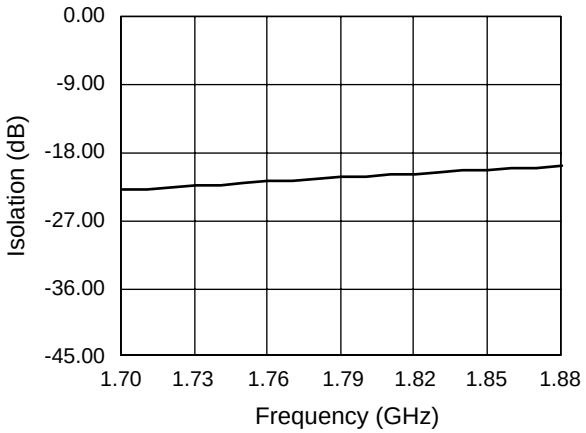
Amplitude Balance vs. Frequency



Output VSWR vs. Frequency



Coupled – Direct Phase vs. Frequency



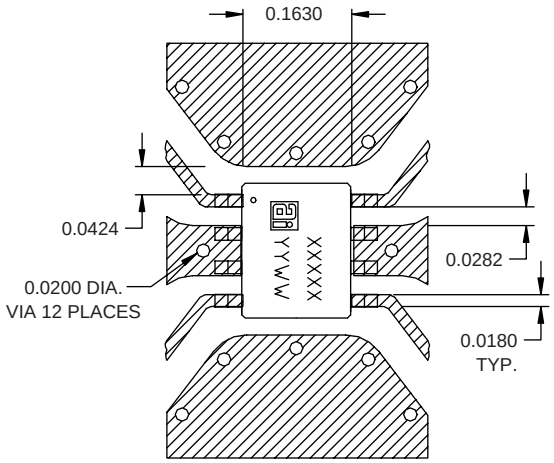
Isolation vs. Frequency

Absolute Maximum Ratings

Characteristic	Value
Input Power[1]	+4 W
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C
Electrostatic Discharge	+125 V

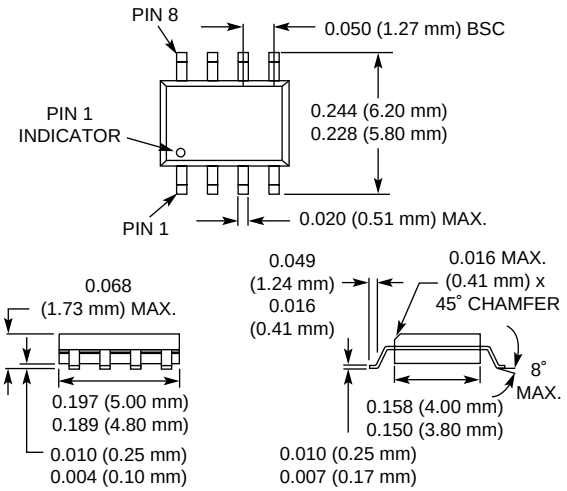
1. Exceeding these parameters may cause irreversible damage.

Recommended Board Layout



Materials 10 mil FR-4.
Dimensions are in inches.

SOIC-8



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