

# WIDEBAND COUPLER 90° HYBRID 100 WATT

HybriX®



DATA SHEET

PART SERIES: WH1727F

SHEET 1 OF 3  
1013245

EN 14-0825  
Revision A

## FEATURES

- Low Profile Surface Mount Package
- High Power
- Low Insertion Loss
- High Isolation
- High Reliability
- 100% Tested

## APPLICATIONS

- Power Amplifiers
- Modulator
- Demodulator
- Signal Distribution Network
- Antenna Feeds
- Switch Networks



## GENERAL DESCRIPTION

EMC Technology offers high performance hybrid couplers in a low profile, surface mount package. These couplers are designed for demanding application where high power, low loss and excellent isolation are required.

## ORDERING INFORMATION

**Part Identifier:** WH1727F

## SPECIFICATIONS

### 1.0 ELECTRICAL

Frequency	Isolation	Insertion Loss	VSWR	Amplitude Balance	Phase Balance	Power Handling
1700 - 2700 MHz	-26 dB Max	0.15 dB Max	1.15:1 Max	± .20 dB Max	±2°	100 Watts CW

Passive Intermodulation: -155 dBc (with 2x 43 dBm Input) (For Reference Only)

### 2.0 ENVIRONMENTAL

Operating Temperature: -55°C to +110°C

### 3.0 MARKING

Part Number and Pin 1 Indicator

### 4.0 QUALITY ASSURANCE

**Sample Inspect Per MIL-STD-105, Level II, 1.0% AQL.**

Visual and Mechanical Examination for Conformance To Outline Drawing Requirements.

Measure Coupling and VSWR

**Test Data Requirements**

No Test Data Required

Data Retention – 12 months

### 5.0 PACKAGING

Standard: Tape and Reel

*Note: Specifications are subject to change.*

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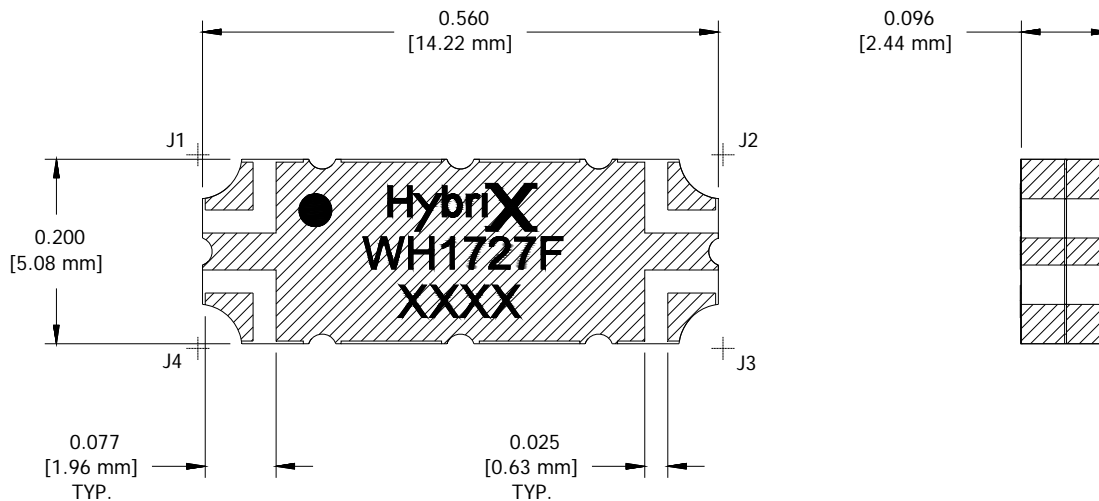
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## 6.0 MECHANICAL

Substrate:	PTFE
Conductor:	Copper
Plating:	Tin
Application Note:	AN0030 (General Hybrid and Directional Coupler)
Metric Dimensions:	Provided for reference only

## PIN CONFIGURATION

Port	J1	J2	J3	J4
J1	-	Iso	-90°	0°
J2	Iso	-	0°	-90°
J3	-90°	0°	-	Iso
J4	0°	-90°	Iso	-



Unless Otherwise Specified: TOLERANCE: X.XX = ± 0.01 X.XXX = ± 0.005

Note: Specifications are subject to change.

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DATA SHEET

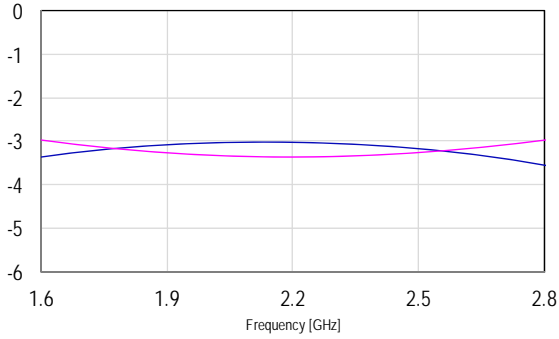
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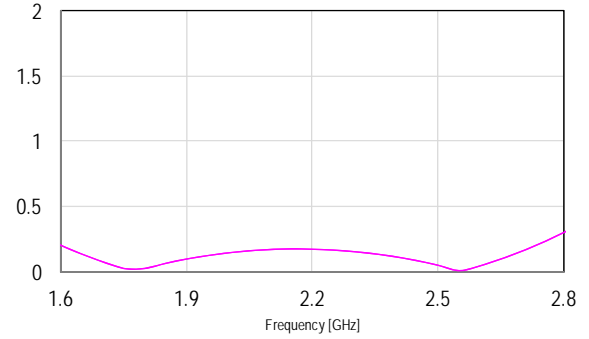
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## 7.0 TYPICAL PERFORMANCE AT 25°C

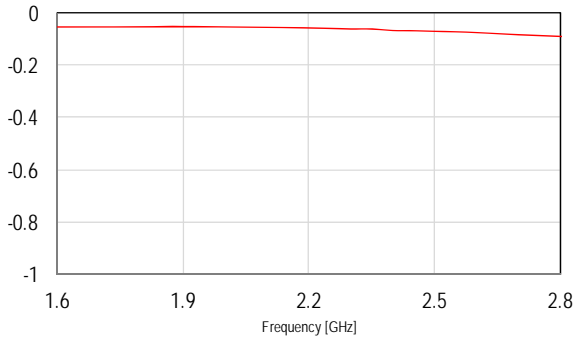
COUPLING



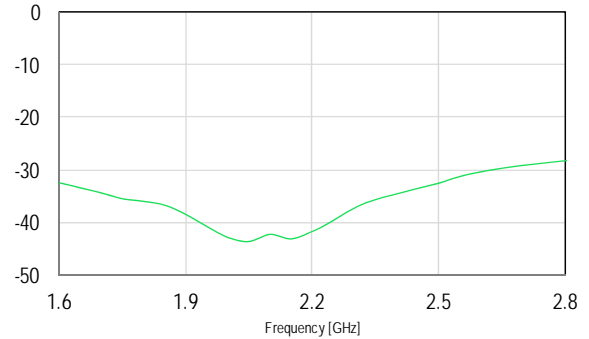
AMPLITUDE BALANCE



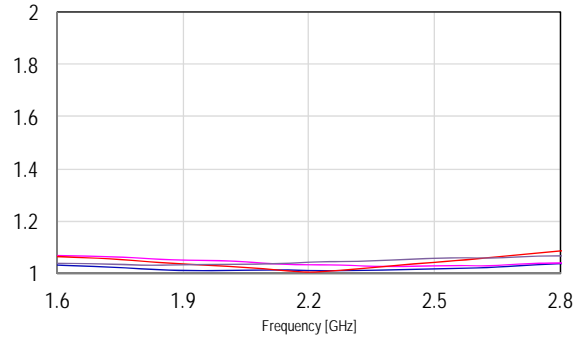
INSERTION LOSS



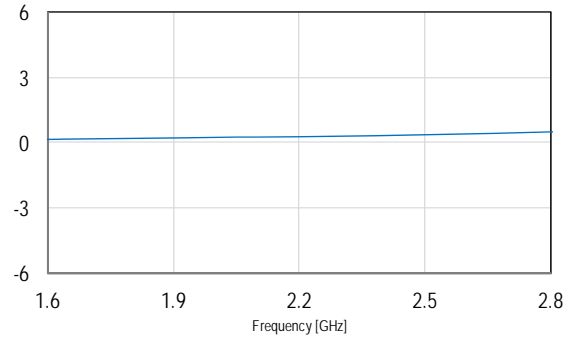
ISOLATION



VSWR ALL PORTS



PHASE BALANCE



Note: Specifications are subject to change.