

# COUPLER

## 90° HYBRID 5 WATT

HybriX®



DATA SHEET

PART SERIES: HVL3F

SHEET 1 OF 3  
Dwg HVL3F

EN 13-3225  
Revision -

### FEATURES

- Low Profile Surface Mount Package
- Ultra-Compact Footprint
- High Power
- Low Insertion Loss
- High Isolation
- High Reliability
- Automated Assembly Compatibility

### APPLICATIONS

- Low Noise Amplifiers
- Modulator
- Demodulator
- Signal Distribution Network
- Antenna Feeds
- Switch Networks
- Phase Shifter



### GENERAL DESCRIPTION

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

### ORDERING INFORMATION

**Part Identifier:** HVL3F

### SPECIFICATIONS

#### 1.0 ELECTRICAL

Frequency	Isolation	Insertion Loss	VSWR	Amplitude Balance	Phase Balance	Power Handling
2000 to 2300 MHz	24 dB Min	0.35 dB Max	1.20 Max	± 0.60 dB Max	90° ± 5	5 Watts CW

#### 2.0 ENVIRONMENTAL

Operating Temperature: -55°C to +125°C

#### 3.0 MARKING

Center Frequency, Coupling 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 Amplitude Balance 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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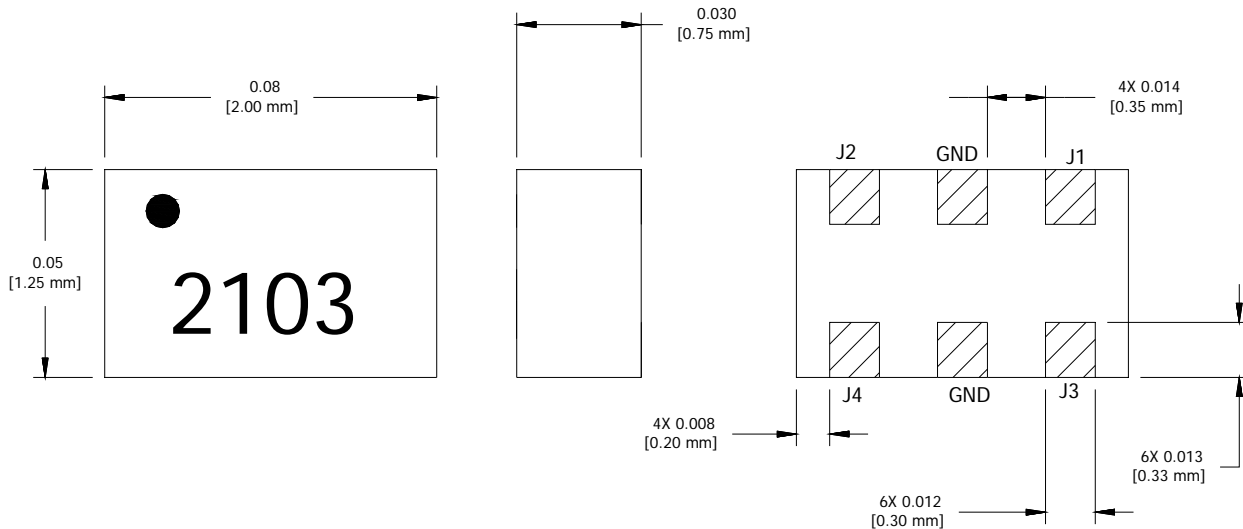
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### 6.0 MECHANICAL

Substrate: LTCC  
 Conductor: Silver  
 Plating: Gold  
 Application Note: AN0030 (General Hybrid and Directional Coupler)

### 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

Metric dimensions are provided for reference only.

Note: Specifications are subject to change.

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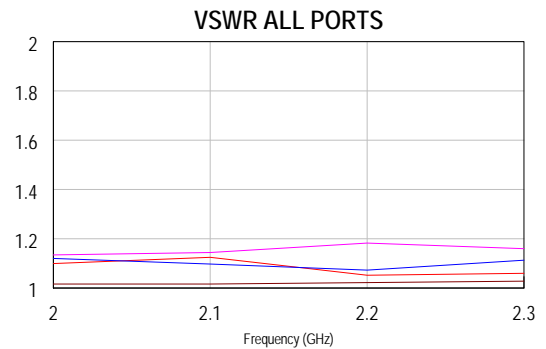
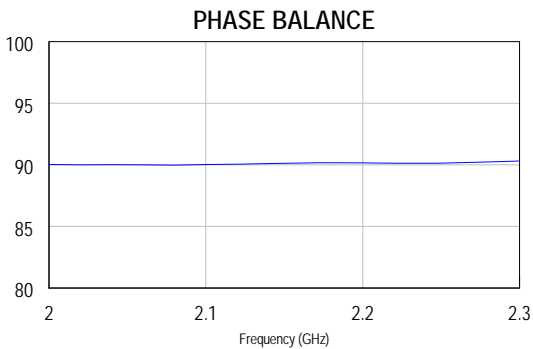
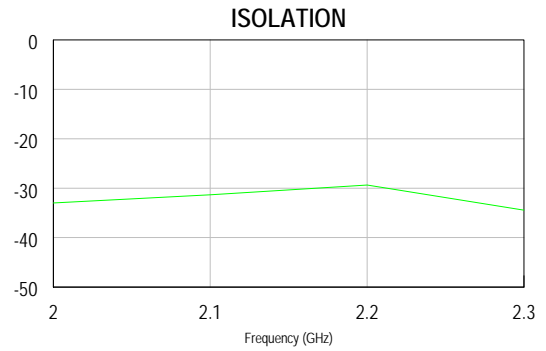
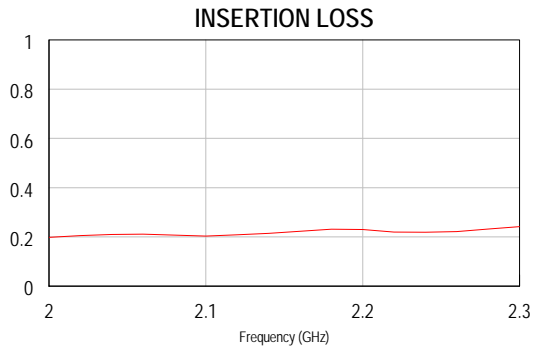
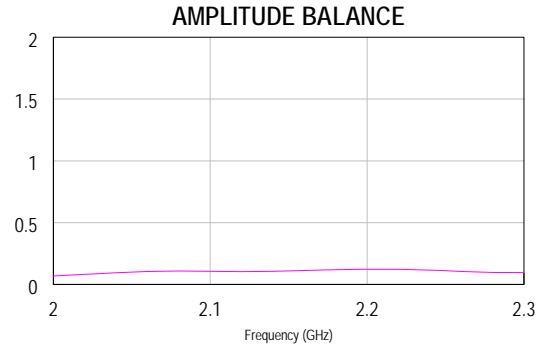
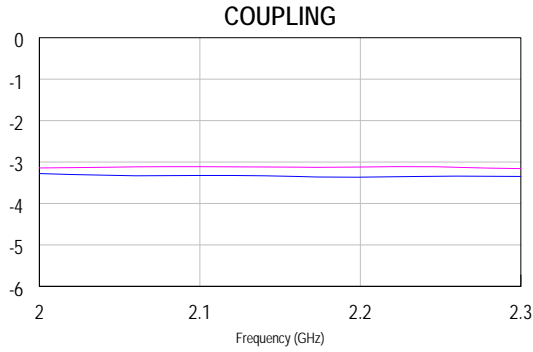
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## 7.0 TYPICAL PERFORMANCE AT 25°C



Note: Specifications are subject to change.