

COUPLER

90° HYBRID 300 WATT

HybriX®



DATA SHEET

PART SERIES: HE450M2F

SHEET 1 OF 3
Dwg HE450M2F

EN 14-0247
Revision B

FEATURES

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

APPLICATIONS

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

GENERAL DESCRIPTION

EMC Technology offers high performance 90° hybrid couplers in a low profile, surface mount package. These Hybrid couplers are designed for demanding applications where high power, low loss and high isolation are required.



ORDERING INFORMATION

Part Identifier: HE450M2F

SPECIFICATIONS

1.0 ELECTRICAL

Frequency	Isolation	Insertion Loss	VSWR	Amplitude Balance	Phase Balance	Power Handling
400 to 500 MHz	25 dB Min	0.2 dB Max	1.15:1 Max	0.4 dB Max	90° ± 3	300 Watts CW

2.0 ENVIRONMENTAL

Operating Temperature: -25°C to +125°C

3.0 MARKING

HybriX, 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 Amplitude Balance and VSWR

Test Data Requirements

No Test Data Required

Data Retention – 12 months

5.0 PACKAGING

Standard: Tray Packaging

Note: Specifications are subject to change.

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Dwg HE450M2F

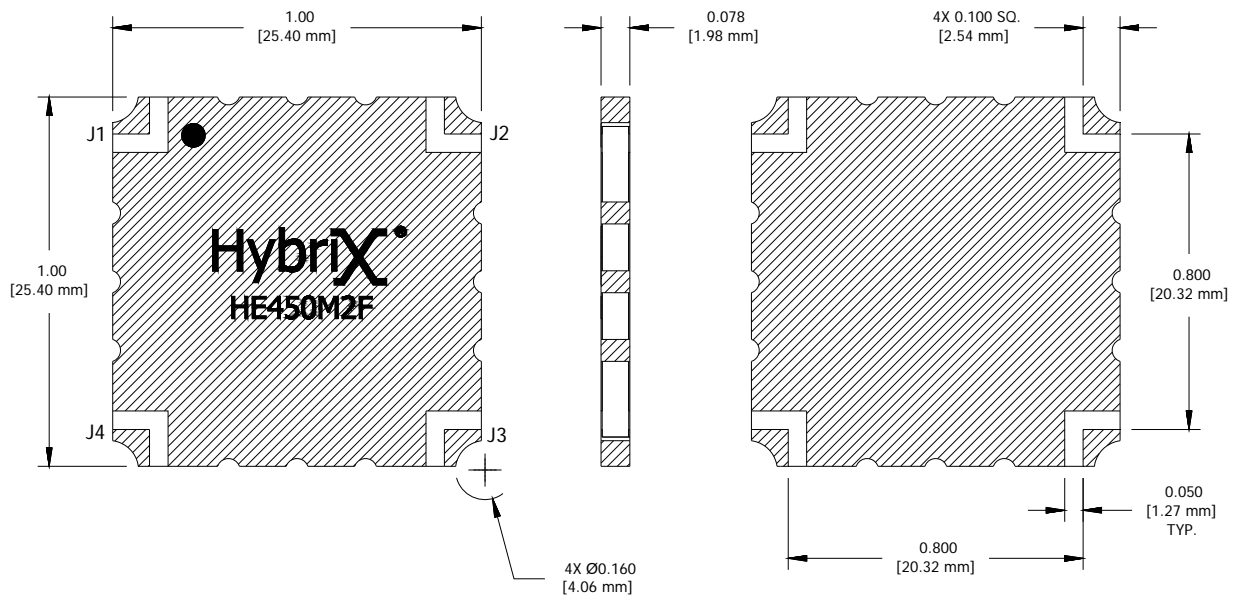
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6.0 MECHANICAL

Substrate:	PTFE
Conductor:	Copper
Exterior Finish:	Chemical Conversion
Tabs:	Copper, Gold plated
Application Note:	AN0030 (General Hybrid and Directional Couplers)

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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DATA SHEET

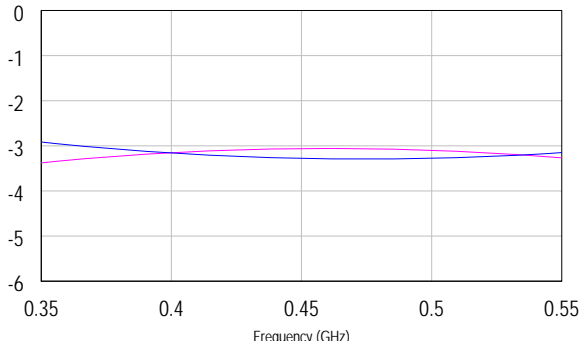
PART SERIES: HE450M2F

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Dwg HE450M2F

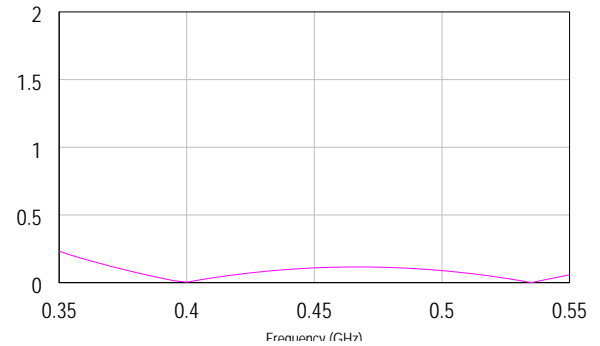
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7.0 TYPICAL PERFORMANCE AT 25°C

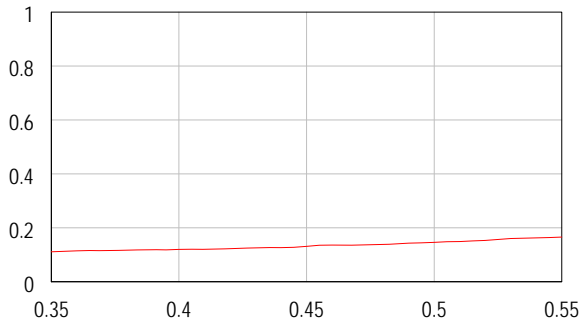
COUPLING



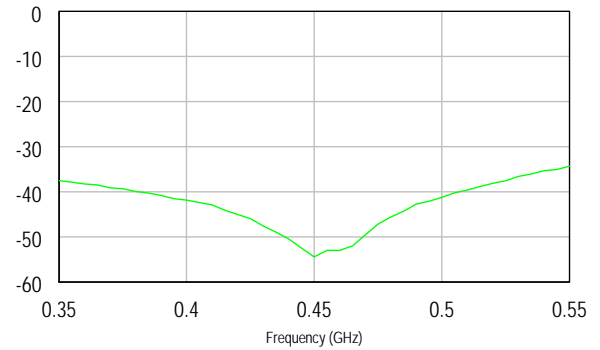
AMPLITUDE BALANCE



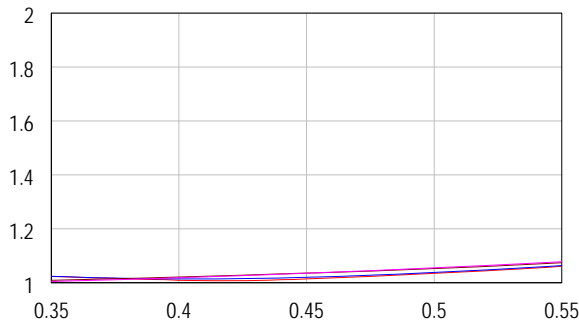
INSERTION LOSS



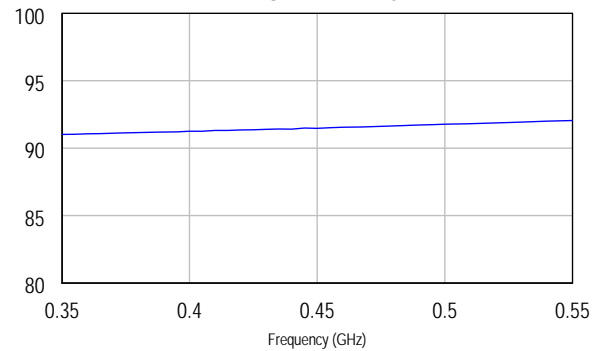
ISOLATION



VSWR ALL PORTS



PHASE BALANCE



Note: Specifications are subject to change.