

COUPLER

90° HYBRID 50 WATT

HybriX®



DATA SHEET

PART SERIES: HPU2F

SHEET 1 OF 3
Dwg HPU2F

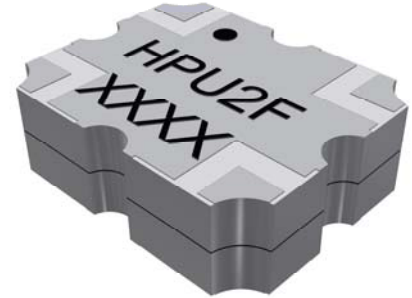
EN 13-2548
Revision A

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 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: HPU2F

SPECIFICATIONS

1.0 ELECTRICAL

Frequency	Isolation	Insertion Loss	VSWR	Amplitude Balance	Phase Balance	Power Handling
3600 - 6400 GHz	23 dB Min	0.30 dB Max	1.25:1 Max	±0.40 dB Max	90° ± 2°	50 Watts CW
3000 – 7000 GHz	23 dB Min	0.45 dB Max	1.25:1 Max	±1.00 dB Max	90° ± 2°	50 Watts CW

2.0 ENVIRONMENTAL

Operating Temperature: -55°C to +95°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 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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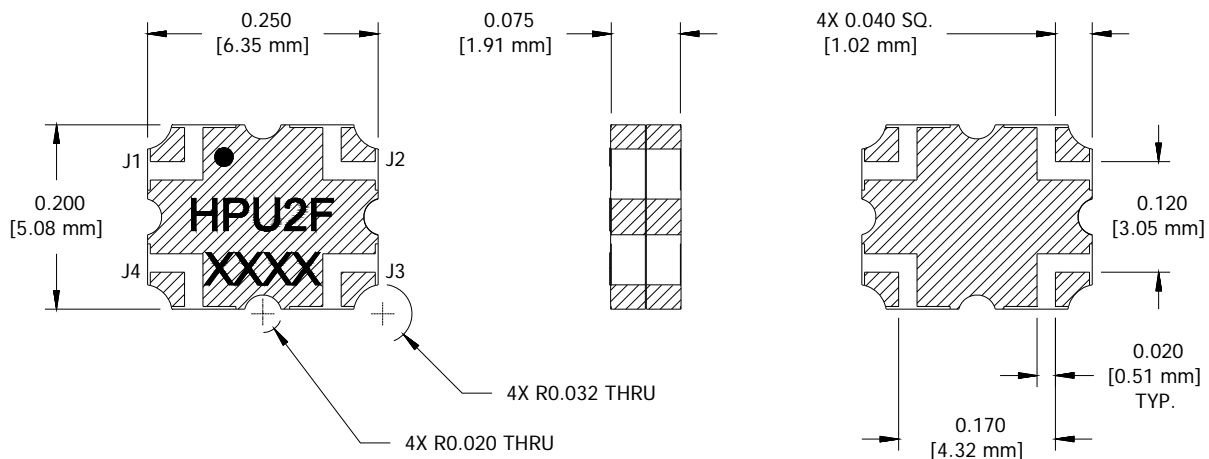
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6.0 MECHANICAL

Substrate: PTFE
 Conductor: Copper
 Plating: Tin
 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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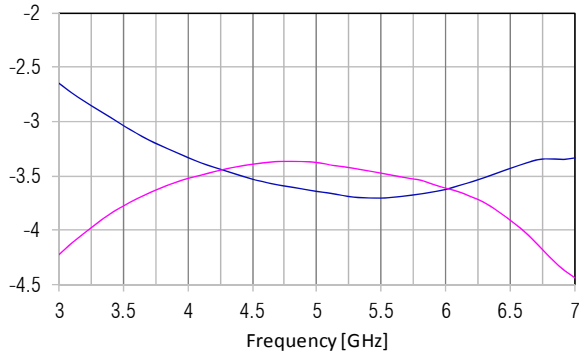
PART SERIES: HPU2F

SHEET 3 OF 3
Dwg HPU2F

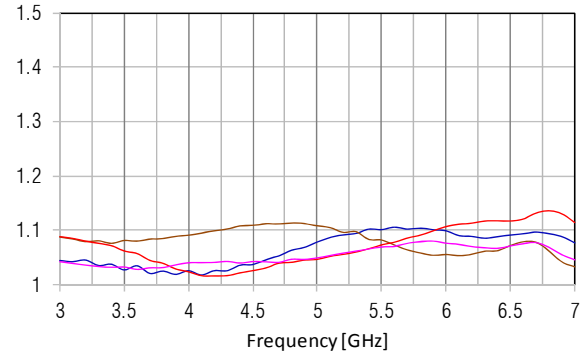
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7.0 TYPICAL PERFORMANCE AT 25°C

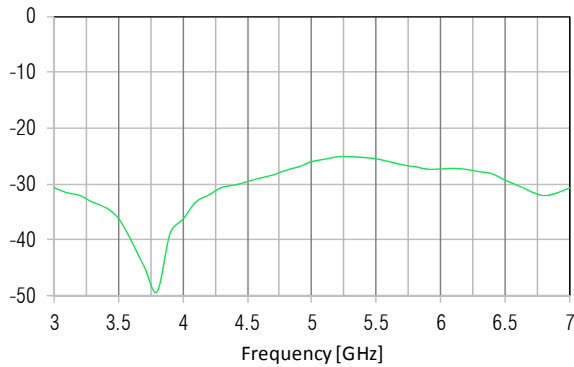
COUPLING



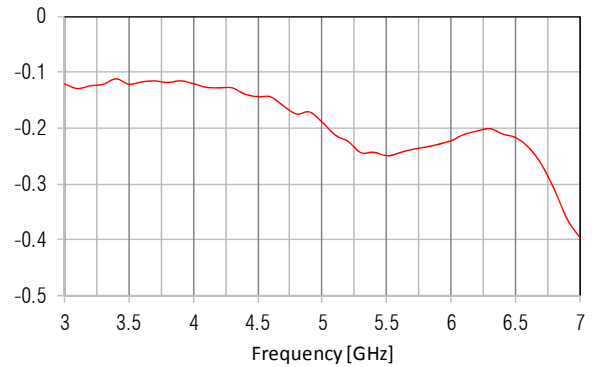
VSWR ALL PORTS



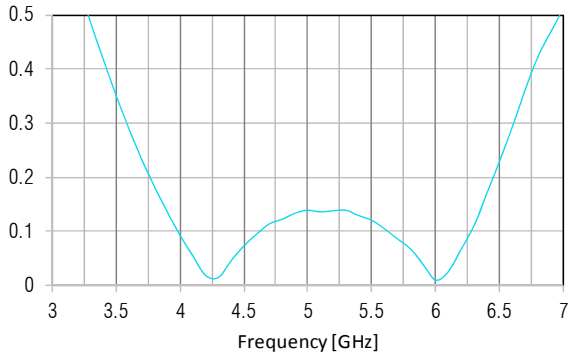
ISOLATION



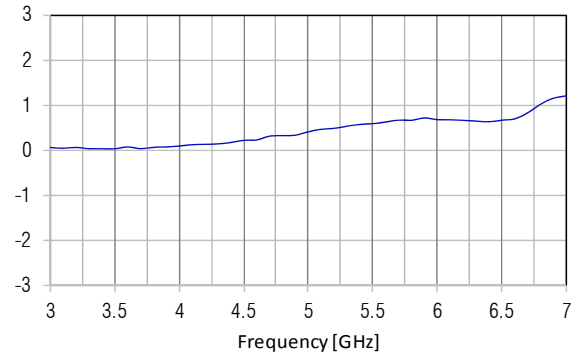
INSERTION LOSS



AMPLITUDE BALANCE



PHASE ERROR



Note: Specifications are subject to change.