



LEAD-FREE / RoHS-COMPLIANT

WILKINSON POWER DIVIDER

PD-0530SMG

Features

- 5 to 30 GHz In Phase Power Splitting
- 1.5 dB Typical Insertion Loss
- 25 dB Typical Output to Output Isolation
- Surface Mount Package
- [Microwave Power Dividers & Couplers App Note](#)

Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter ¹	Frequency Range (GHz)	Min	Typ	Max	
Nominal Power Splitting (dB)	5 to 30		3		
Nominal Phase Shift (Degrees)			0		
Amplitude Balance (dB)			±0.1		
Phase Balance (Degrees)			±2		
Excess Insertion Loss (dB) ²			1.5	3	
VSWR			1.4		
Isolation (dB)			25		
Power As Divider (W)					10
Power As Combiner (W)					1

¹Specifications guaranteed when operated in a 50Ω system.

²Excess Insertion Loss = (Common Port to Output Port Insertion Loss) – 3 dB.

Part Ordering Options

Model Number	Description
PD-0530SMG	5 - 30 GHz Power Divider, Surface Mount, LEAD-FREE/RoHS COMPLIANT
EVAL-PD-0530SM	Connectorized Evaluation Fixture, LEAD-FREE/RoHS COMPLIANT

Revision History

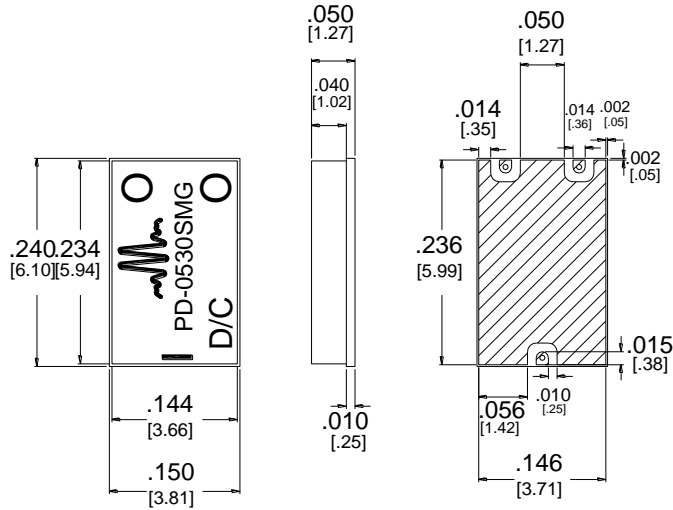
Revision code	Revision Date	Comment
B	12/2020	Added Performance Over Temperature Plots
C	11/2022	Added EVAL Outline Drawing

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Surface Mount Package Outline

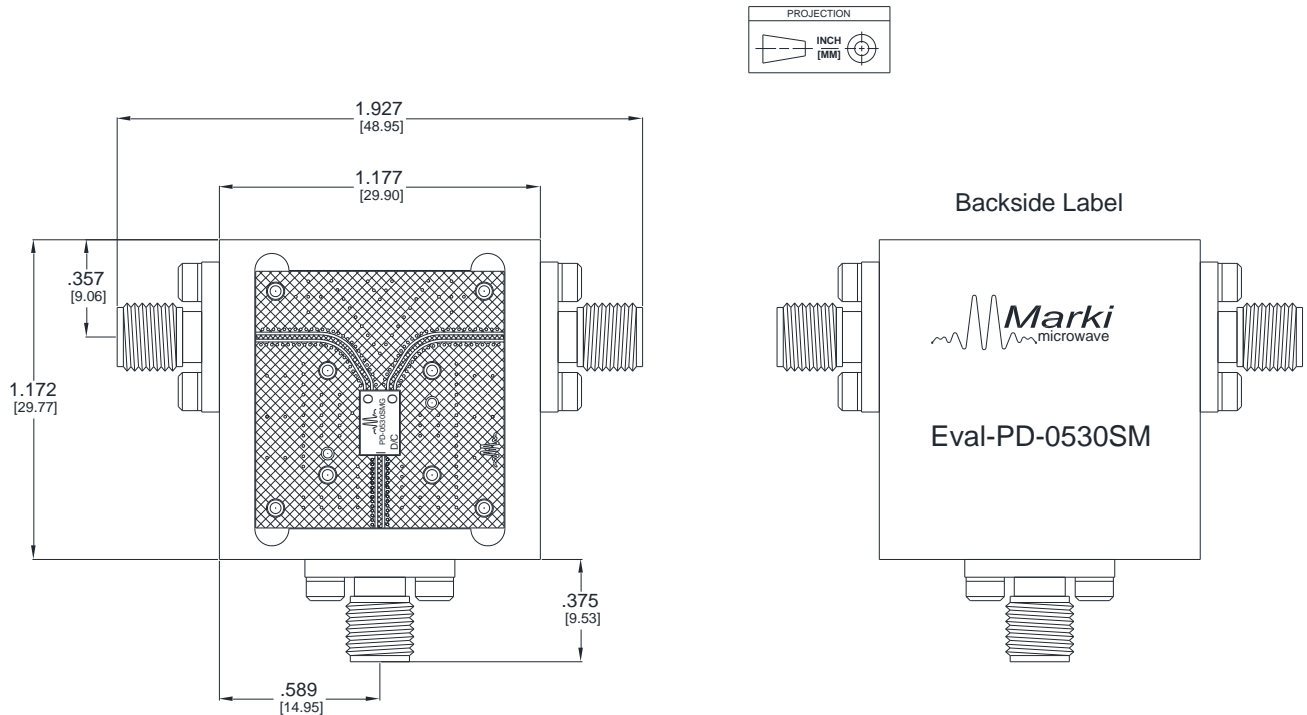


Substrate material is 10-mil thick Alumina, 5 μm Au.

I/O Pads & Ground Plane Finish is 20-40 μ-inches Au, over 1500Å Ni, over 500Å WTi.

See <http://www.markimicrowave.com/menus/appnotes/AN-PDSMCS-PCB.pdf> for suggested PCB layout.

Connectorized Evaluation Fixture Outline



Typical Performance

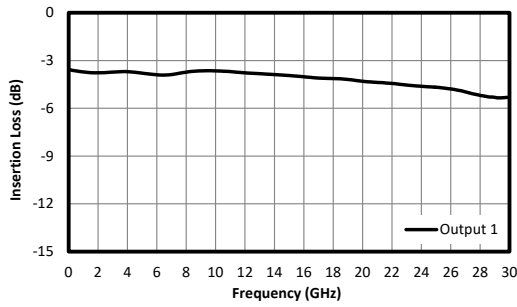


Fig. 1. Common port to output port insertion loss.

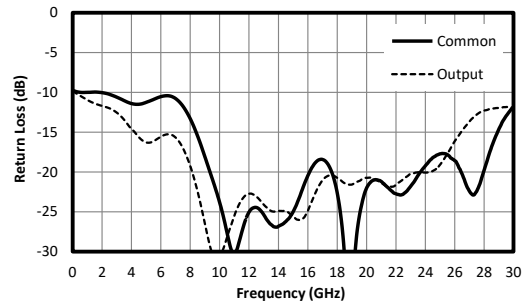


Fig. 2. Return loss for output and common ports.

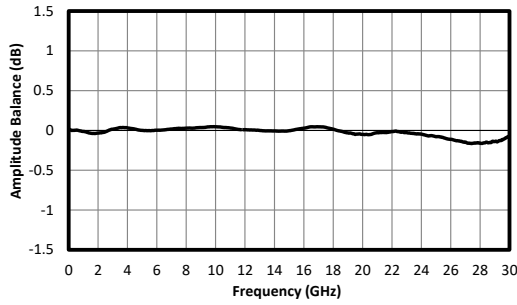


Fig. 3. Amplitude balance between output ports.

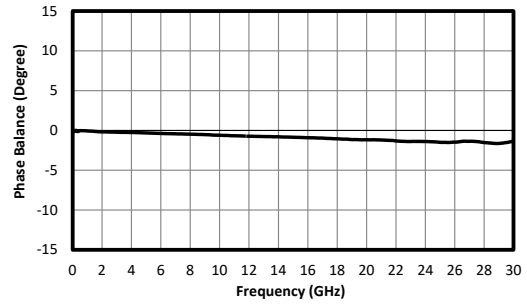


Fig. 4. Phase balance between output ports.

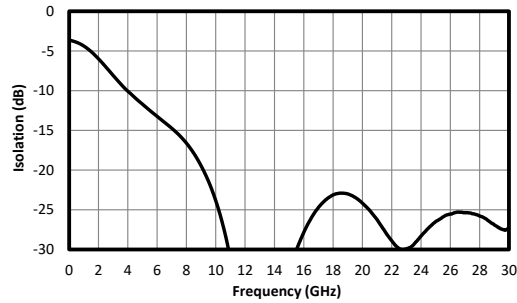


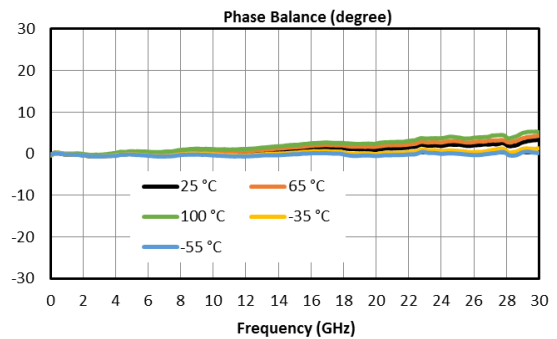
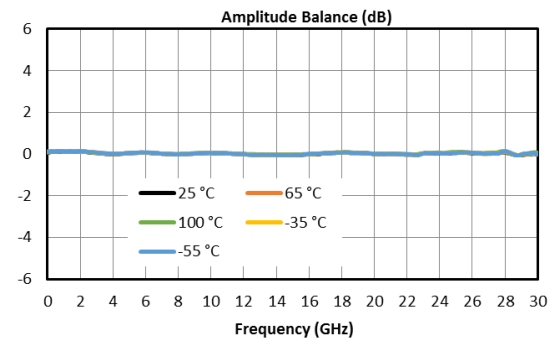
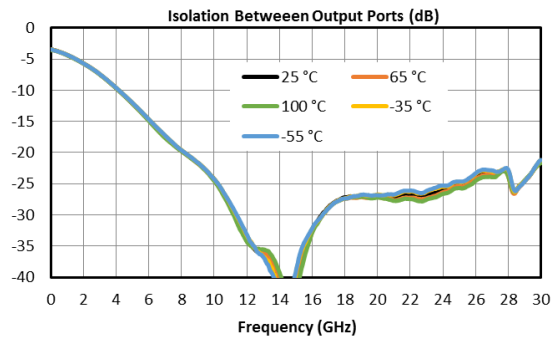
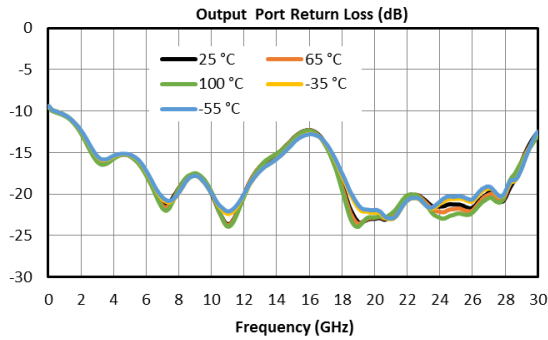
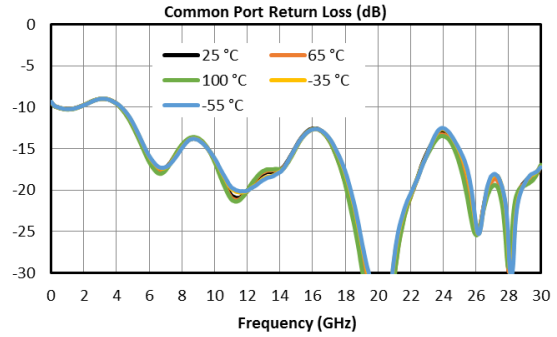
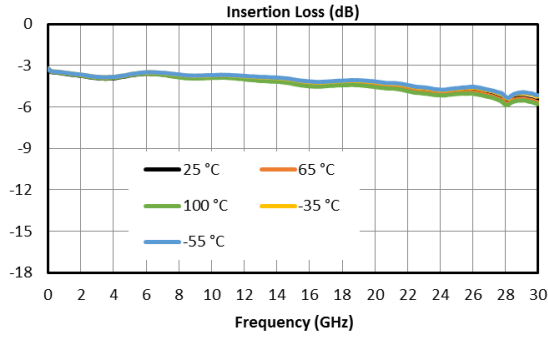
Fig. 5. Isolation between output ports.

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Typical Performance Over Temperature



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