

PD-0R510 Wilkinson Power Divider

DEVICE OVERVIEW

General Description

2-Way Wilkinson power dividers can be used for both in-phase power splitting and power combining applications. These power dividers feature the lowest insertion loss (ideally 3 dB splitting loss), excellent amplitude and phase balance, and high isolation across the entire operating band. High isolation can be critically important for power combining applications, such as when performing accurate intermodulation distortion (IMD) tests.



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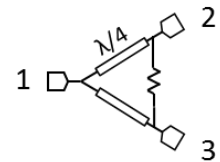
Features

- 0.5 to 10 GHz In-phase Power Splitting
- 22 dB Typical Output to Output Isolation
- Outstanding Phase and Amplitude Balance

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
PD-0R510	Wilkinson Power Divider	<u>Standard</u>	REACH RoHS	Released	EAR99

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Revision History

Revision Code	Revision Date	Comment
-	2018-11-27	Initial Date Release

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
In	Divider Common Input	SMAF	Wilkinson Divider Common Input	-
Out 1	Divider Output 1	SMAF	RF divided output 1 of the Wilkinson divider.	-
Out 2	Divider Output 2	SMAF	RF divided output 2 of the Wilkinson divider.	-

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
RF Power Handling as a Power Combiner	1	W
RF Power Handling as a Power Divider	10	W

Package Information

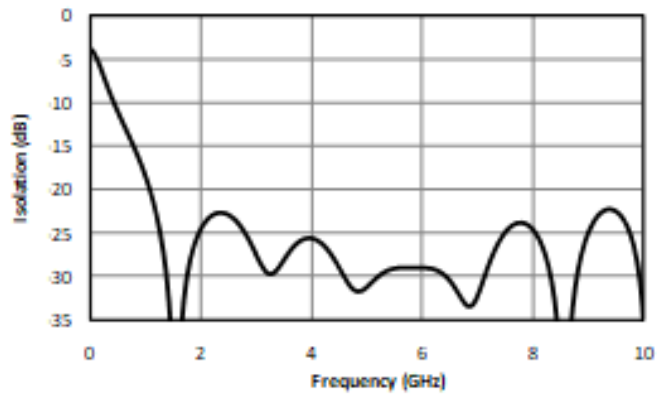
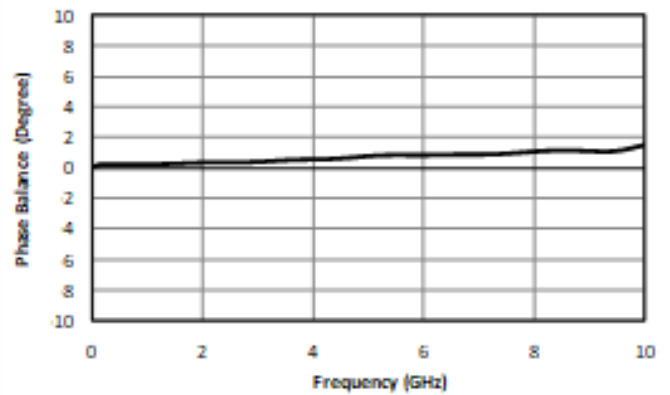
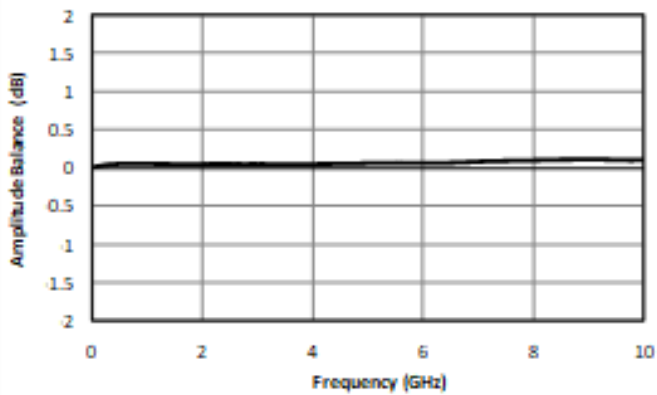
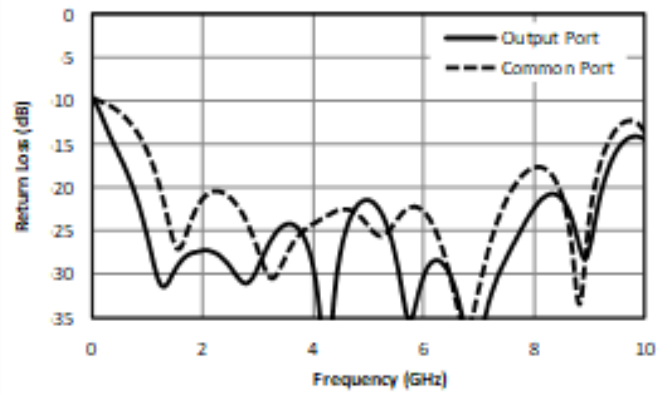
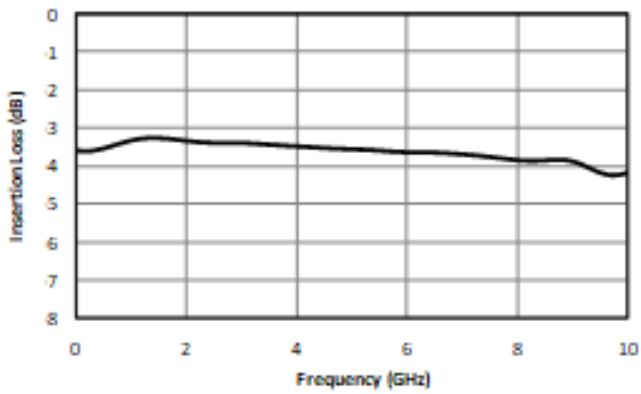
Parameter	Details	Rating
Weight	-	60g
Dimensions	-	20.32 x 45.72mm

Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Nominal Phase Shift	-	0.5	10	-	0	-	dB
Phase Balance	-	0.5	10	-	1	5	°
Insertion Loss ¹	-	0.5	10	-	0.9	1.8	dB
VSWR	-	0.5	1	-	1.6	-	-
VSWR	-	1	0	-	1.2	1.5	-
VSWR	-	9	10	-	1.6	-	-
Isolation	-	0.5	1	9	15	-	dB
Isolation	-	1	10	15	22	-	dB
Weight	-	-	-	-	60	-	g
Amplitude Balance	-	0.5	10	-	0.1	0.5	dB
Nominal Power Splitting (dB)	-	0.5	10	-	3	-	dB

^[1] Excess Insertion Loss = (Input Port to Common Port Insertion Loss) - 6dB
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

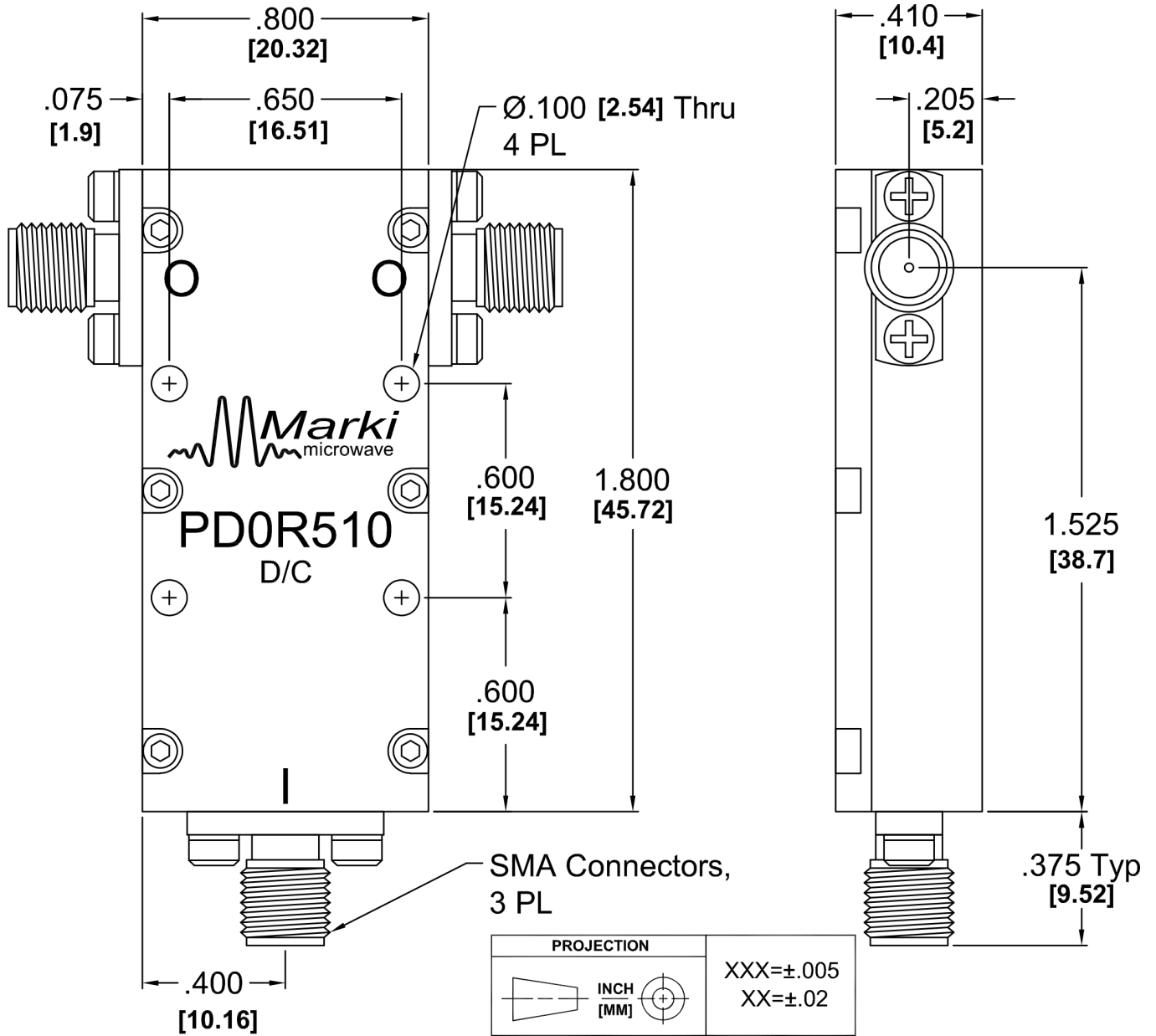
Typical Performance Plots



Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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