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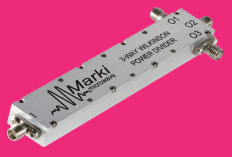
PD3-0R616

3-Way Wilkinson Power Divider

DEVICE OVERVIEW

General Description

3-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 4.77 dB 3-way splitting loss), excellent amplitude and phase balance, and high isolation across the entire operating band.



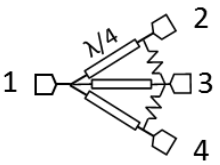
Features

- 0.6 to 16 GHz In-phase Power Splitting
- High Output to Output Isolation
- Closely Tracking Phase and Amplitude Balance

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
PD3-0R616	3-Way Wilkinson Power Divider	Standard	REACH RoHS	Released	EAR99

Table Of Contents

Revision History

Revision Code	Revision Date	Comment
-	2012-11-01	Initial Date Released
A	2025-12-17	Power Handling Updated

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
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.	-
Out 3	Divider Output 3	SMAF	RF divided output 3 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	-	62g
Dimensions	-	116.33 x 20.32 mm

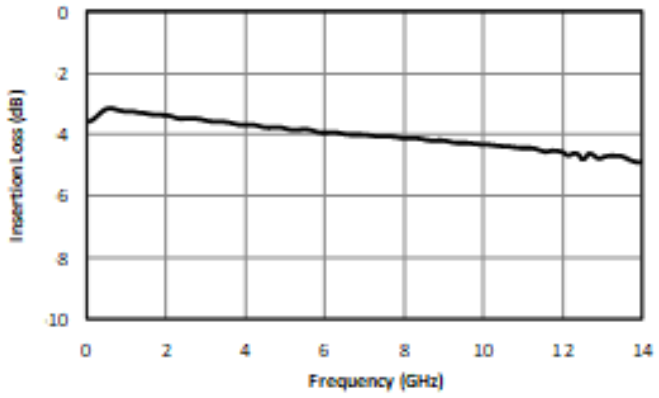
Electrical Specifications

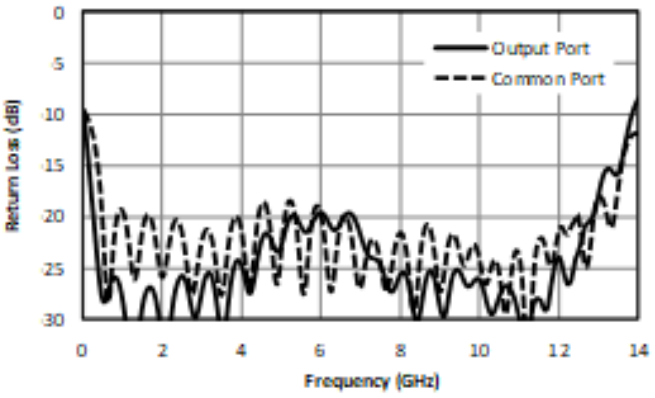
Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

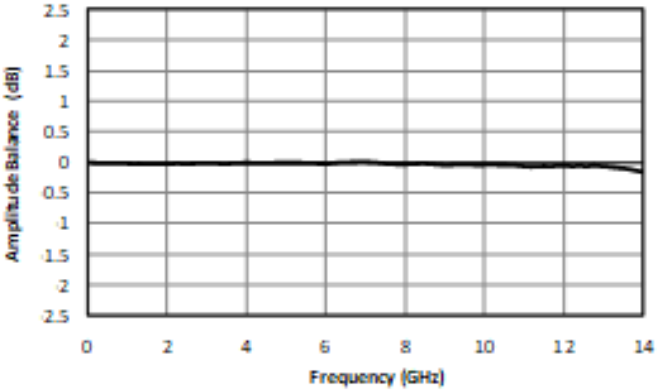
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Amplitude Balance	-	0.6	16	-	0.2	0.6	dB
Insertion Loss [1]	-	0.6	16	-	1.5	3	dB
Nominal Phase Shift	-	0.6	16	-	0	-	°
Nominal Power Splitting (dB)	-	0.6	16	-	4.77	-	dB
Phase Balance	-	0.6	16	-	2	10	°
VSWR	-	0.8	16	-	1.35	1.55	
VSWR	-	0.6	0.8	-	1.55	-	
Isolation	-	0.6	16	-	25	-	dB

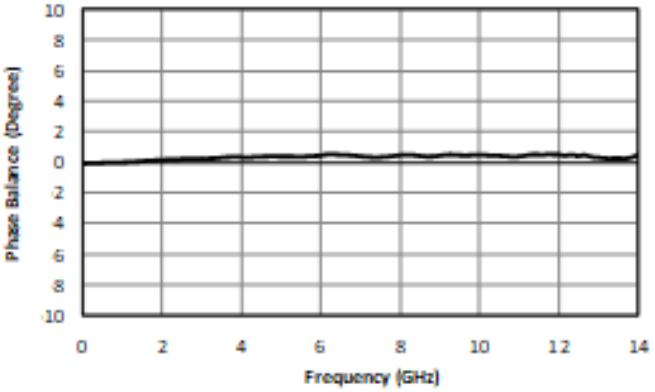
[1] Excess Insertion Loss = (Input Port to Common Port Insertion Loss) - 6dB

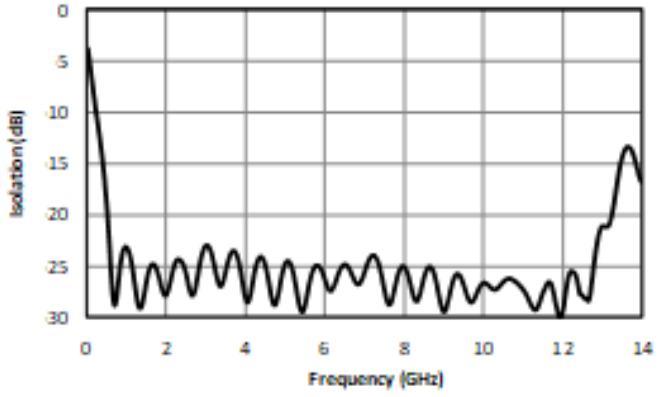
Typical Performance Plots







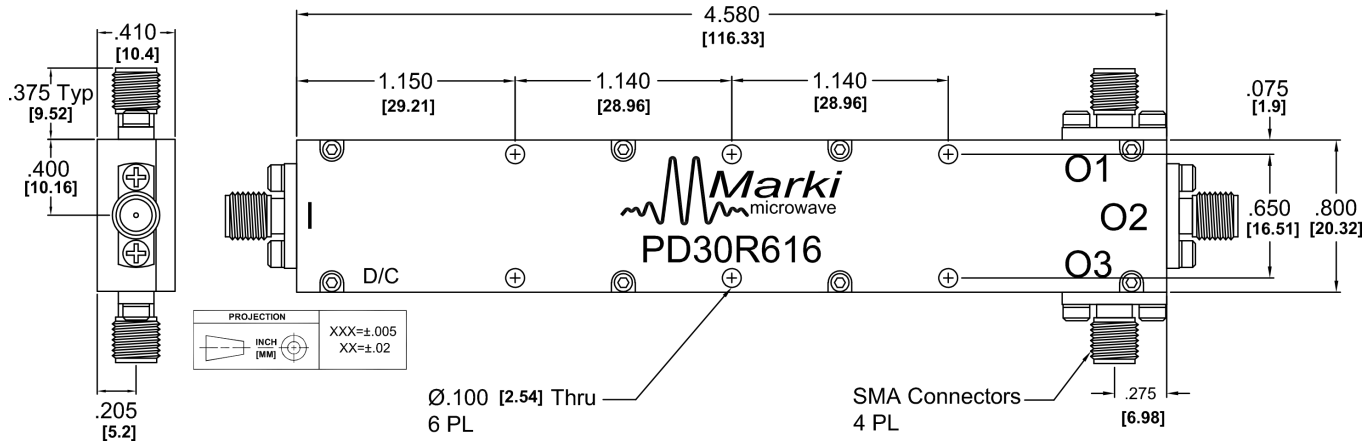




Mechanical Data

Outline Drawing

Download : Outline 2D Drawing | Outline 3D Drawing | Outline 3D STP



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