

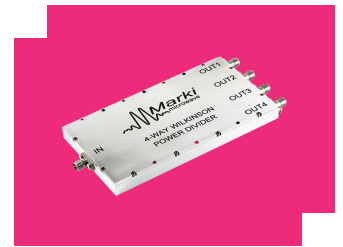
PD4-0R518

4-Way Wilkinson Power Divider

DEVICE OVERVIEW

General Description

4-Way Wilkinson power dividers can be used for both in-phase power splitting and power combining applications. These power dividers are realized as a cascade of two 1:2 Wilkinson power dividers integrated into a single package. 4-Way Wilkinson power dividers feature the lowest insertion loss (ideally 4 dB 4-way splitting loss), excellent amplitude and phase balance, and high isolation across the entire operating band.



[Download s-parameters here](#)

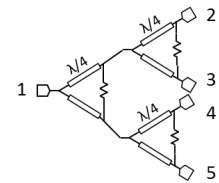
Features

- 0.5 to 18 GHz In-phase Power Splitting
- Outstanding 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
PD4-0R518	4-Way Wilkinson Power Divider	<u>Standard</u>	REACH RoHS	Released	EAR99

Table Of Contents

- **Device Overview**
 - General Description
 - Features
 - Applications
 - Functional Block Diagram
- **Port Configuration and Functions**
 - Port Functions
- **Revision History**
- **Specifications**
 - Absolute Maximum Ratings
 - Package Information
 - Electrical Specifications
 - Typical Performance Plots
- **Mechanical Data**
 - Outline Drawing

Revision History

Revision Code	Revision Date	Comment
-	2013-04-10	Initial Date Release
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.	-
Out 4	Divider Output 4	SMAF	RF divided output 4 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	-	135g
Dimensions	-	215.9x55.9 mm

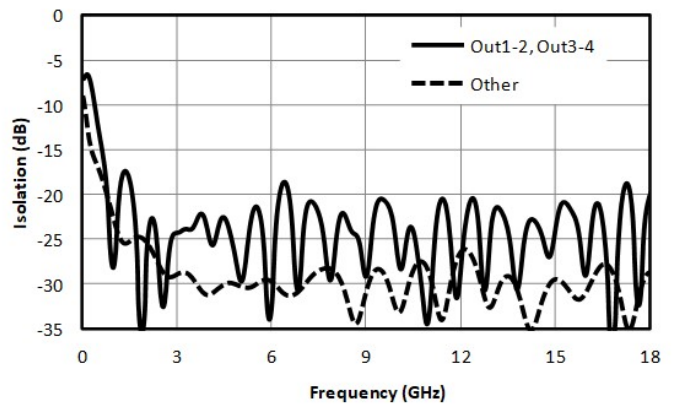
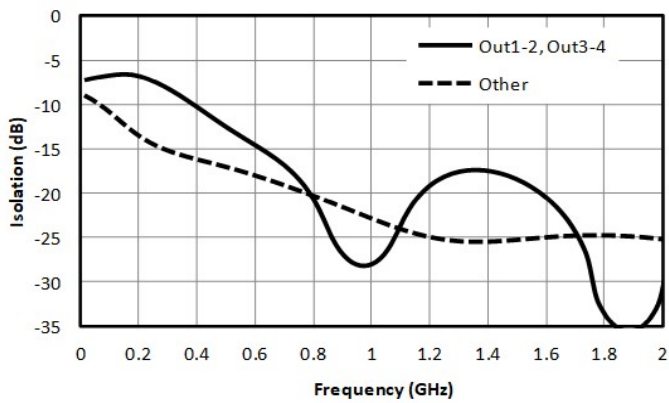
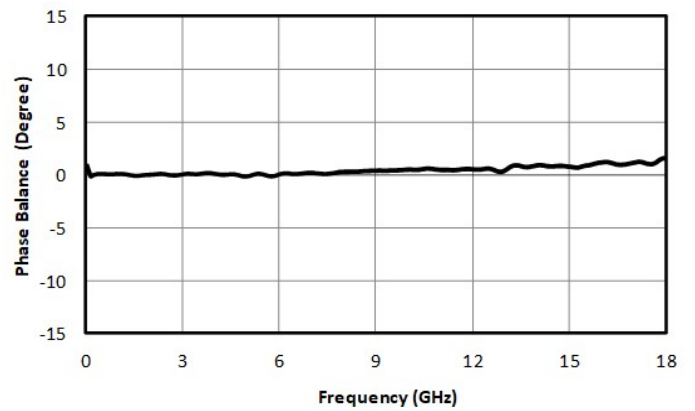
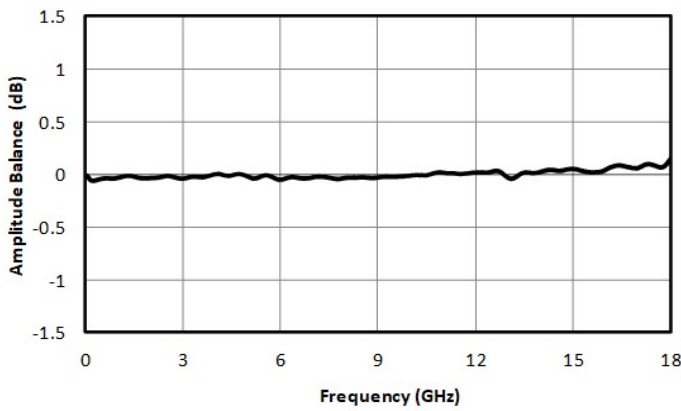
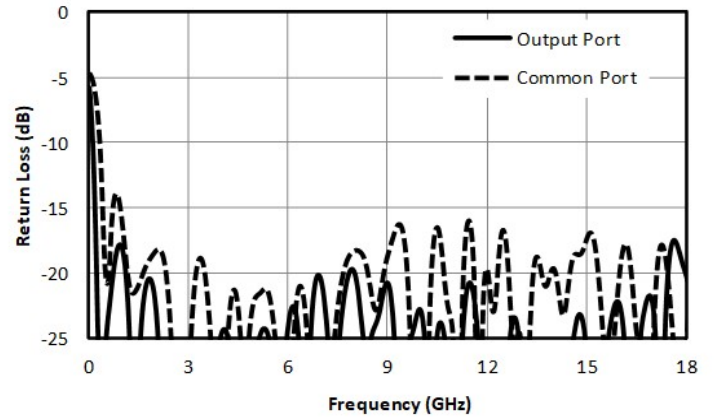
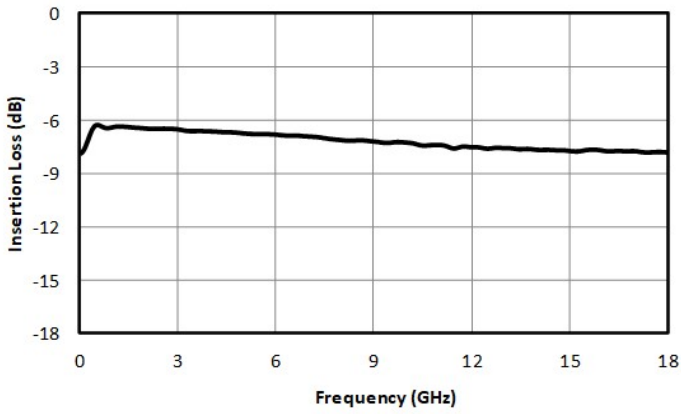
Electrical Specifications

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	-	0.5	18	-	0.25	0.75	dB
Excess Insertion Loss ¹	-	0.5	18	-	1.5	-	dB
Isolation	-	0.5	1	9	15	-	dB
Isolation	-	1	18	16	25	-	dB
Nominal Phase Shift	-	0.5	18	-	0	-	°
Nominal Power Splitting	-	0.5	18	-	6	-	dB
Phase Balance	-	0.5	18	-	3	10	°
VSWR	-	1	18	-	1.3	1.6	
VSWR	-	0.5	1	-	1.5	-	

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

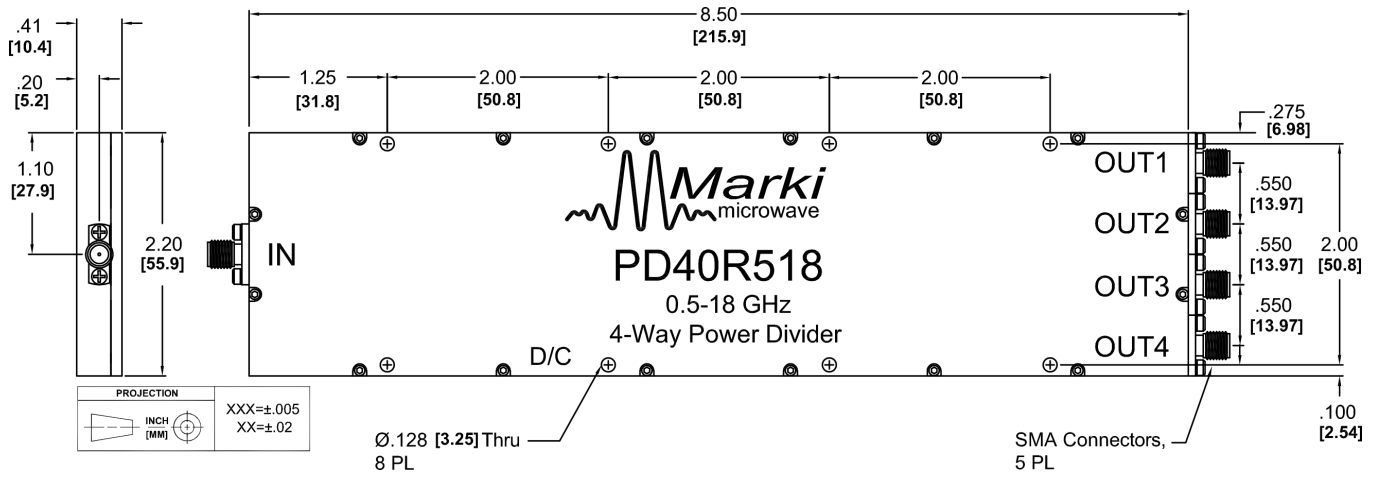
Typical Performance Plots



Mechanical Data

Outline Drawing

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



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