

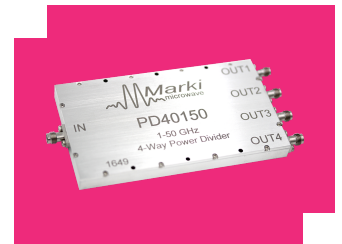
PD4-0150

Ultra-Wideband 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.



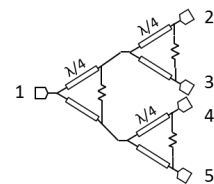
Features

- 1 to 50 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	Package	Packing Size	Green Status	Product Lifecycle	Export Classification
PD4-0150	Ultra-Wideband 4-Way Wilkinson Power Divider	-	-	RoHS	Released	EAR99

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Revision History

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

Port Configuration and Functions

Port Functions

Port	Function	Description	Equivalent Circuit for Package
In	Divider Common Input	Wilkinson Divider Common Input	-
Out 1	Divider Output 1	RF divided output 1 of the Wilkinson divider.	-
Out 2	Divider Output 2	RF divided output 2 of the Wilkinson divider.	-
Out 3	Divider Output 3	RF divided output 3 of the Wilkinson divider.	-
Out 4	Divider Output 4	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	-	220g
Dimensions	-	120.4 × 67.3 mm

Electrical Specifications

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

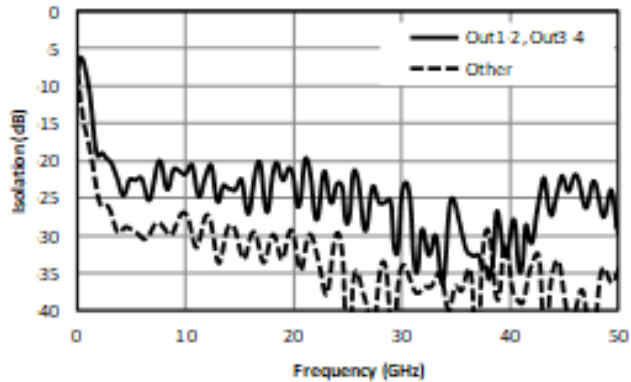
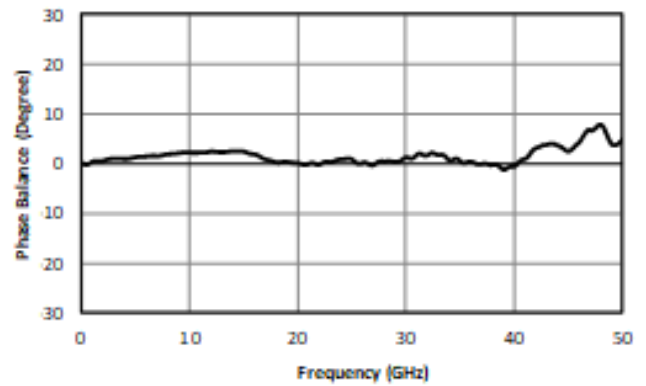
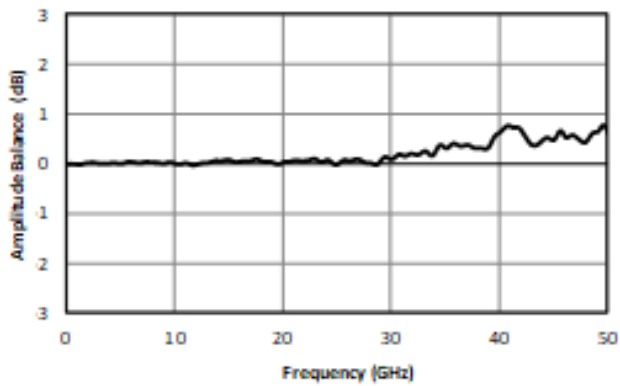
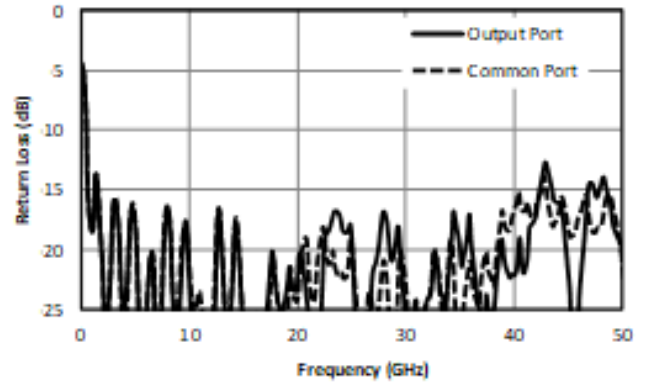
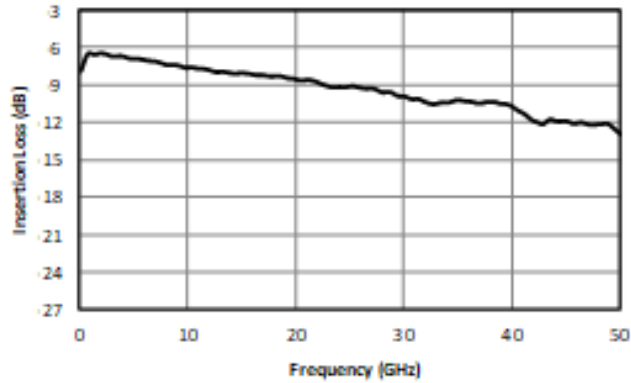
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Phase Balance	-	1	50	-	5	18	°
Insertion Loss ¹	-	1	50	-	4	-	dB
VSWR	-	1	50	-	1.55	-	-
Isolation	-	1	1.6	9	20	-	dB
Isolation	-	1.6	50	16	-	-	dB
Weight	-	-	-	-	220	-	g
Amplitude Balance	-	1	50	-	0.5	1.5	dB
Nominal Phase Balance	-	1	50	-	0	-	°
Nominal Power Splitting (dB)	-	1	50	-	6	-	dB

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

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Ultra-Wideband 4-Way Wilkinson Power Divider

Typical Performance Plots

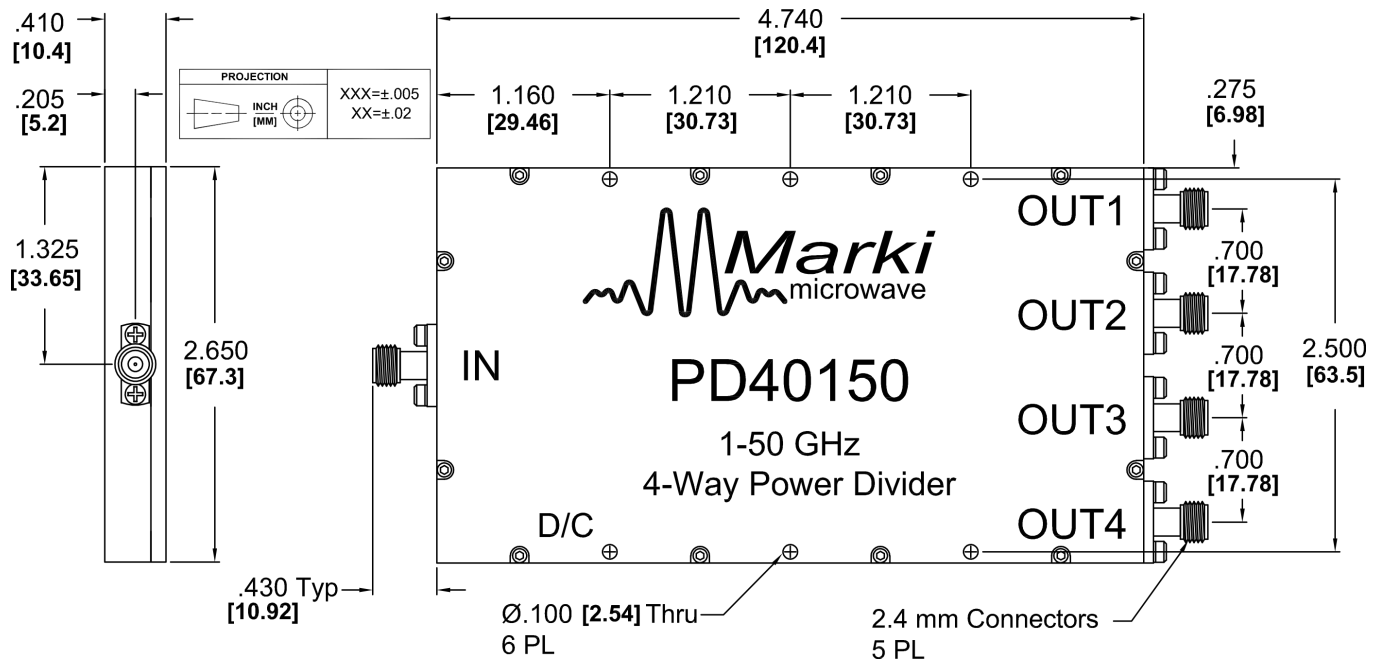


PD4-0150

Ultra-Wideband 4-Way Wilkinson Power
Divider

Mechanical Data

Outline Drawing



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