

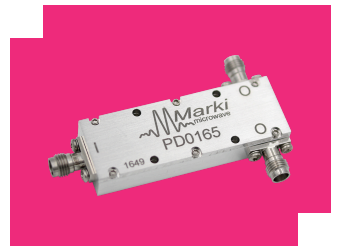
# PD-0165

## Ultra-Wideband 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.



[Download s-parameters here](#)

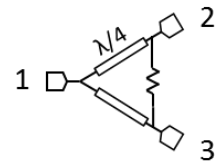
#### Features

- 1 to 65 GHz In-phase Power Splitting
- 20 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-0165	Ultra-Wideband 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
G	2020-10-01	RoHS Assembly
H	2025-12-17	Power Handling Updated

**Port Configuration and Functions**

**Port Functions**

Port	Function	Connector Type	Description	DC Equivalent Circuit
In	Divider Common Input	1.85F	Wilkinson Divider Common Input	-
Out 1	Divider Output 1	1.85F	RF divided output 1 of the Wilkinson divider.	-
Out 2	Divider Output 2	1.85F	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	-	35g
Dimensions	-	60.45 x 20.32 mm

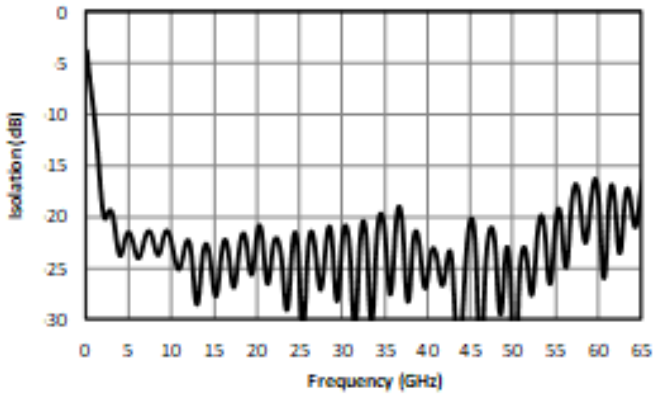
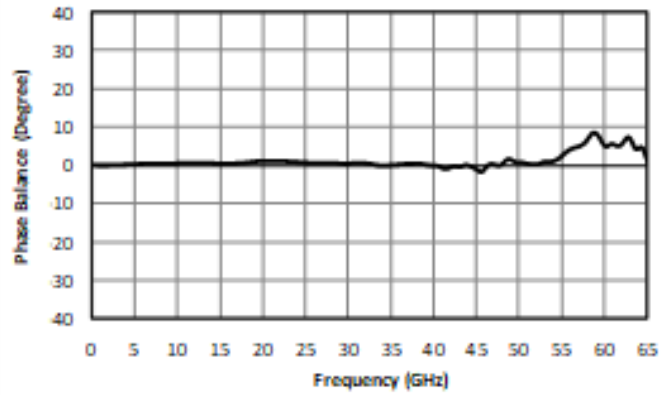
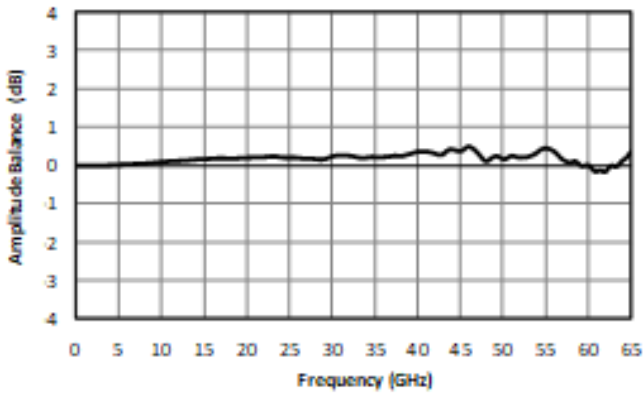
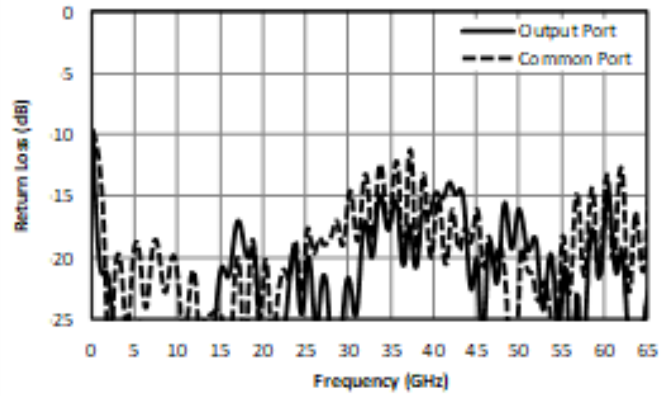
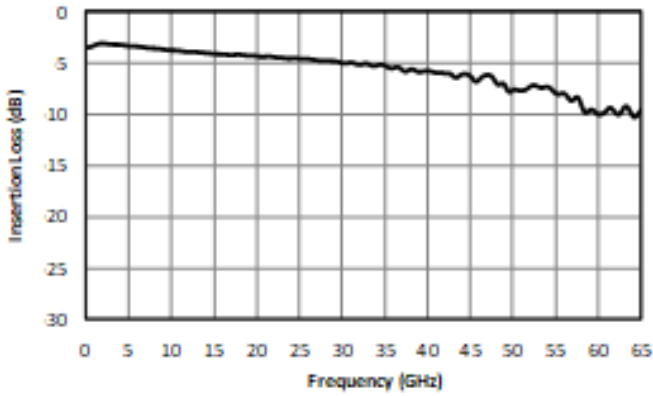
**Electrical Specifications**

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	-	1	65	-	0.25	1.5	dB
Excess Insertion Loss <sup>1</sup>	-	48	65	-	5	-	dB
Excess Insertion Loss <sup>2</sup>	-	1	48	-	2	5	dB
Isolation	-	52	65	-	16	-	dB
Isolation	-	1.8	52	15	20	-	dB
Isolation	-	1	1.8	-	16	-	dB
Nominal Phase Shift	-	1	65	-	0	-	°
Nominal Power Splitting	-	1	65	-	3	-	dB
Phase Balance	-	1	65	-	3	15	°
VSWR	-	1.8	30	-	1.3	1.6	
VSWR	-	1	1.8	-	1.6	-	
VSWR	-	30	65	-	1.6	-	

<sup>[1][2]</sup> Excess Insertion Loss = (Input Port to Common Port Insertion Loss) - 6dB

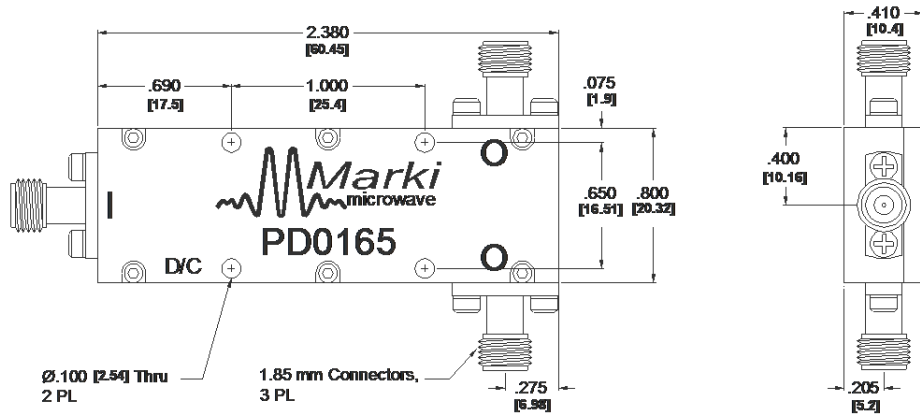
**Typical Performance Plots**



**Mechanical Data**

**Outline Drawing**

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



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