

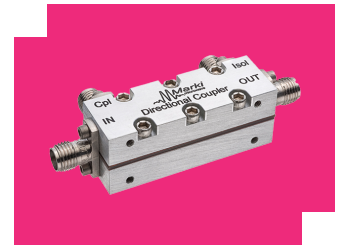
# C10-0667

## DIRECTIONAL COUPLER

### DEVICE OVERVIEW

#### General Description

The C10-0667 is a broadband 6-67 GHz, 10 dB directional coupler. The multisection tri-plate stripline design exhibits excellent coupling flatness and VSWR at all ports. Custom designs are also available, contact the factory for details.



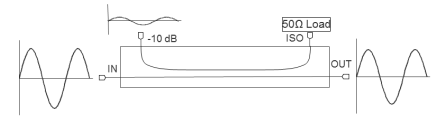
#### Features

- Ultra Broadband Performance
- Excellent Coupling Flatness
- High Directivity
- Low VSWR

#### Applications

N/A

#### Functional Block Diagram



#### Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
C10-0667	DIRECTIONAL COUPLER	<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
B	2020-04-01	Updated Direct Line IL specs

## Port Configuration and Functions

### Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
-10dB	-10dB Coupled Output	1.85F	-10dB coupled output port.	-
IN	RF Input	1.85F	RF input port.	-
ISOL	Isolated	1.85F	Isolated port.	-
OUT	RF Output	1.85F	RF output port.	-

**Specifications**

**Absolute Maximum Ratings**

Parameter	Maximum Rating	Unit
RF Power Handling	10	W
Maximum Operating Temperature	100	°C
Minimum Storage Temperature	-65	°C
Minimum Operating Temperature	-55	°C
Maximum Storage Temperature	125	°C

**Package Information**

Parameter	Details	Rating
Weight	-	25g
Dimensions	-	38.1 x 12.7 mm

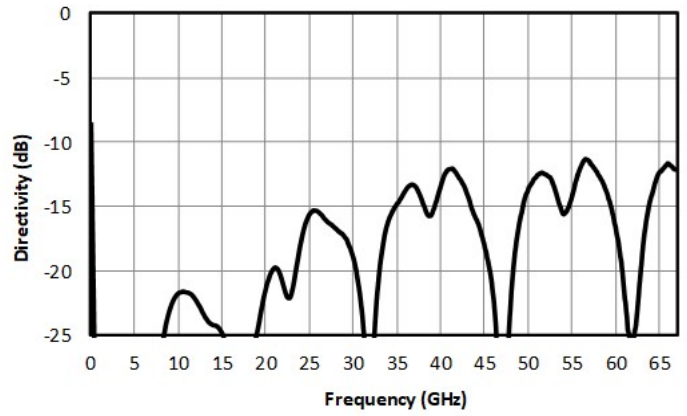
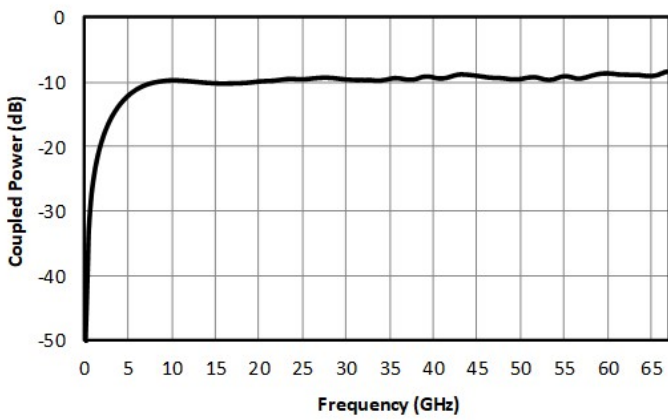
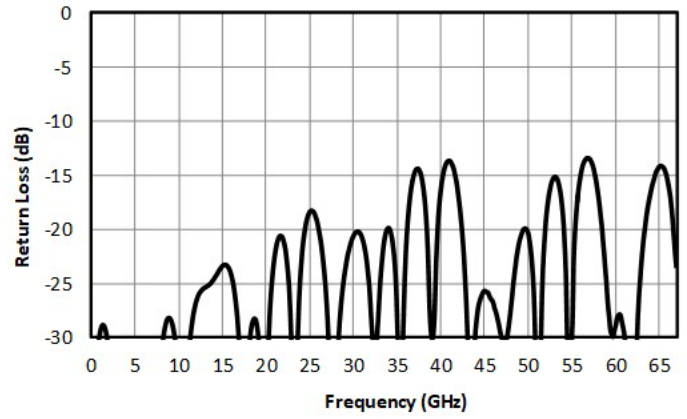
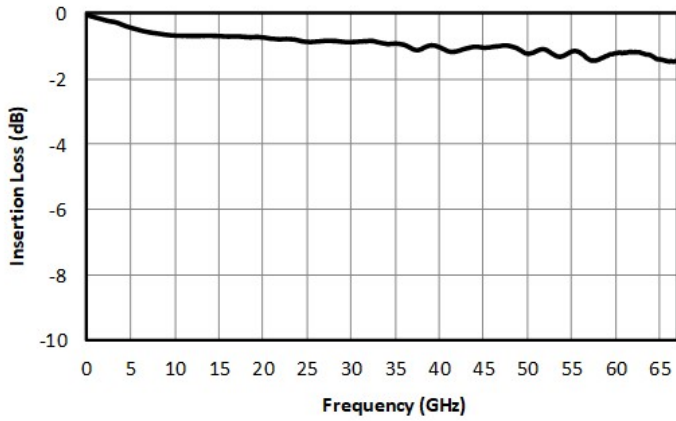
**Electrical Specifications**

The electrical specifications apply at TA=+25°C in a 50Ω system

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Amplitude Flatness <sup>1</sup>	-	6	67	-	0.8	-	dB
Directivity	-	30	67	8	13	-	dB
Directivity	-	6	30	13	17	-	dB
Direct Line Insertion Loss	DC-67	-	-	-	-	2.5	dB
Mean Coupling	-	6	67	-	10	-	dB
VSWR	-	30	67	-	1.5	-	
VSWR	-	6	30	-	1.2	1.45	

<sup>[1]</sup> Deviation from average coupling.

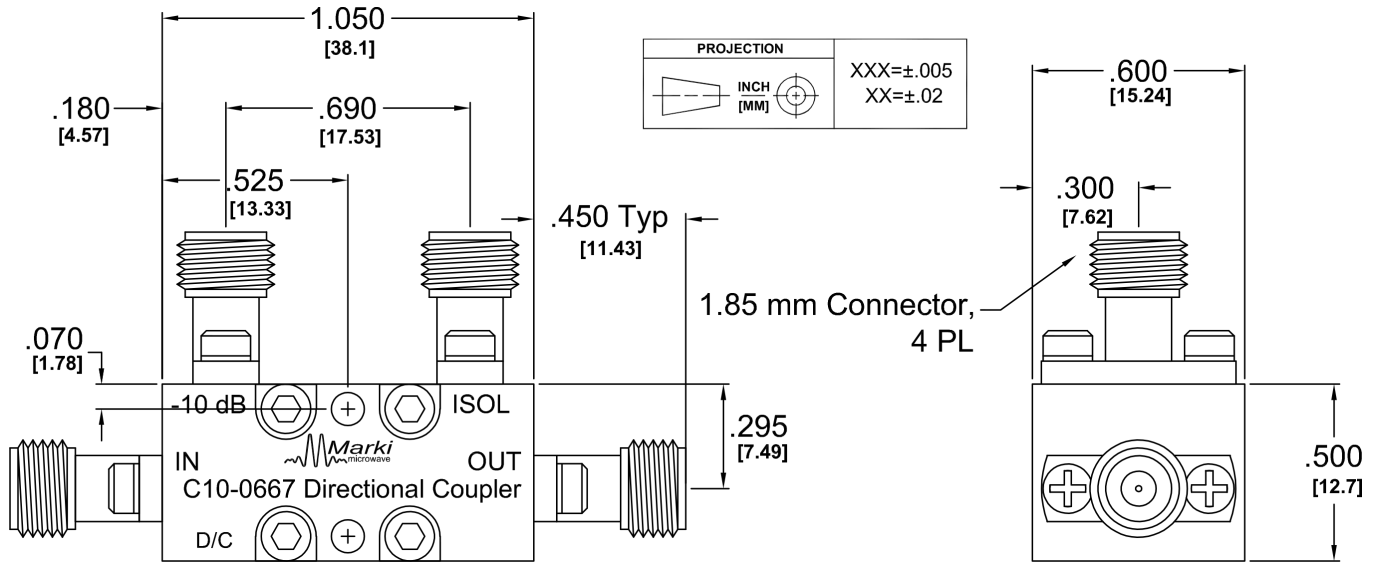
**Typical Performance Plots**



**Mechanical Data**

**Outline Drawing**

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



**DISCLAIMER**

MARKI MICROWAVE, LLC., (“MARKI”) PROVIDES TECHNICAL SPECIFICATIONS AND DATA (INCLUDING DATASHEETS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, AND OTHER INFORMATION AND RESOURCES “AS IS” AND WITH ALL FAULTS. MARKI DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

These resources are intended for developers skilled in the art designing with Marki products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards and other requirements. Marki makes no guarantee regarding the suitability of its products for any particular purpose, nor does Marki assume any liability whatsoever arising out of your use or application of any Marki product.

Marki grants you permission to use these resources only for development of an application that uses Marki products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Marki intellectual property or to any third-party intellectual property. Marki reserves the right to make changes to the product(s) or information contained herein without notice.

MARKI MICROWAVE and T3 MIXER are trademarks or registered trademarks of Marki Microwave, LLC. All other trademarks used are the property of their respective owners.

© 2020, Marki Microwave, LLC