

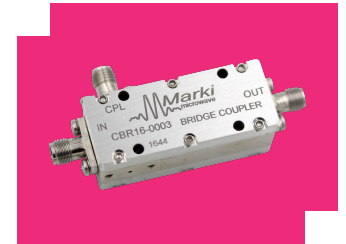
# CBR16-0003

## High Directivity Bridge Coupler

### DEVICE OVERVIEW

#### General Description

The CBR16-0003 offers the highest directivity of any standalone 3 GHz bridge coupler on the market. It provides an extremely high degree of measurement accuracy for forward power measurements, and can also be used to measure VSWR/return loss (see Directivity and VSWR Measurement App Note). The flat coupling ratio, high directivity, and broadband performance to 200 kHz make the CBR16-0003 an excellent 'black box' coupler for everyday lab use.



[Download s-parameters here](#)

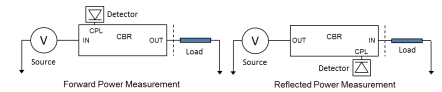
#### Features

- Broadband Performance
- High Directivity
- Low VSWR
- Excellent Coupling Flatness
- Compact Size and Lightweight

#### Applications

N/A

#### Functional Block Diagram



#### Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
CBR16-0003	High Directivity Bridge Coupler	<u>Standard</u>	REACH RoHS	Released	EAR99

**Table Of Contents**

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

**Revision History**

Revision Code	Revision Date	Comment
-	2019-06-06	Initial Date Release

**Specifications**

**Absolute Maximum Ratings**

Parameter	Maximum Rating	Unit
RF Power Handling	1	W

**Package Information**

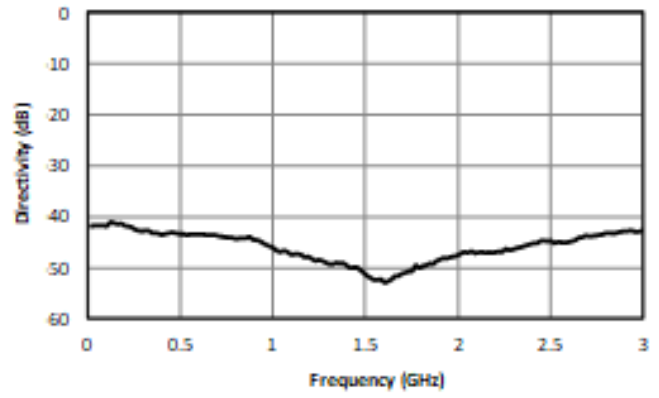
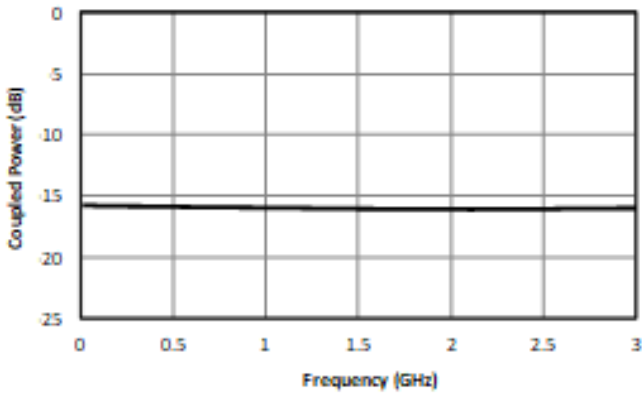
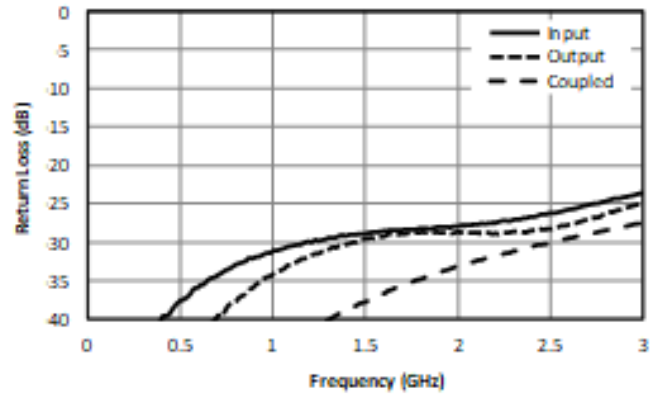
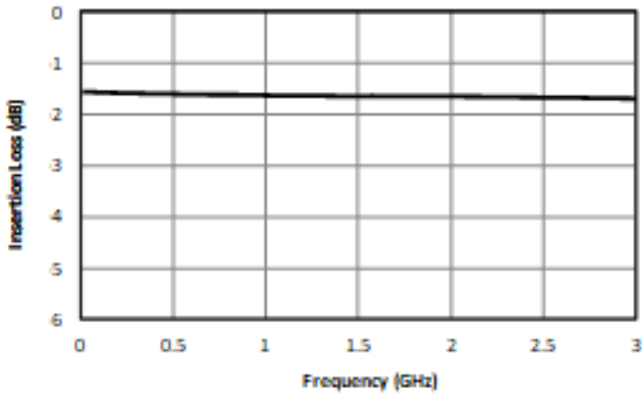
Parameter	Details	Rating
Weight	-	30g
Dimensions	-	43.18 x 17.53 mm

**Electrical Specifications**

Specifications guaranteed when operated in a 50Ω system.

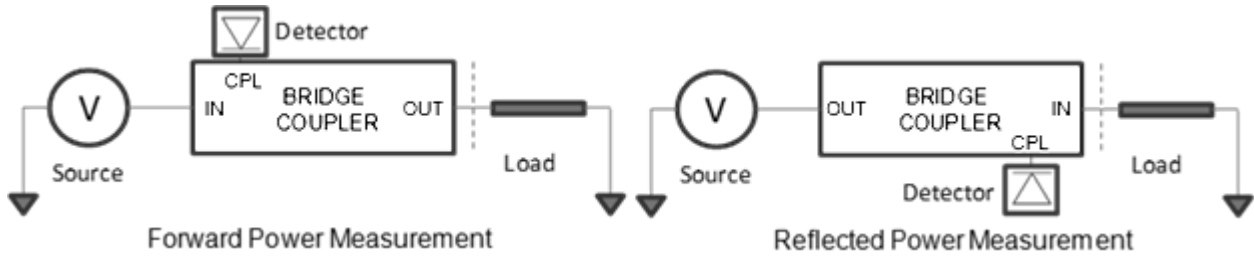
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Directivity	-	0.8	3	30	40	-	dB
Directivity	-	0.0002	0.8	-	25	-	dB
Direct Line Insertion Loss	-	0.0002	3	-	-	2.2	dB
Mean Coupling	-	0.0002	3	-	16	-	dB
VSWR	-	0.0002	3	-	1.1	1.4	

**Typical Performance Plots**



### Application Information

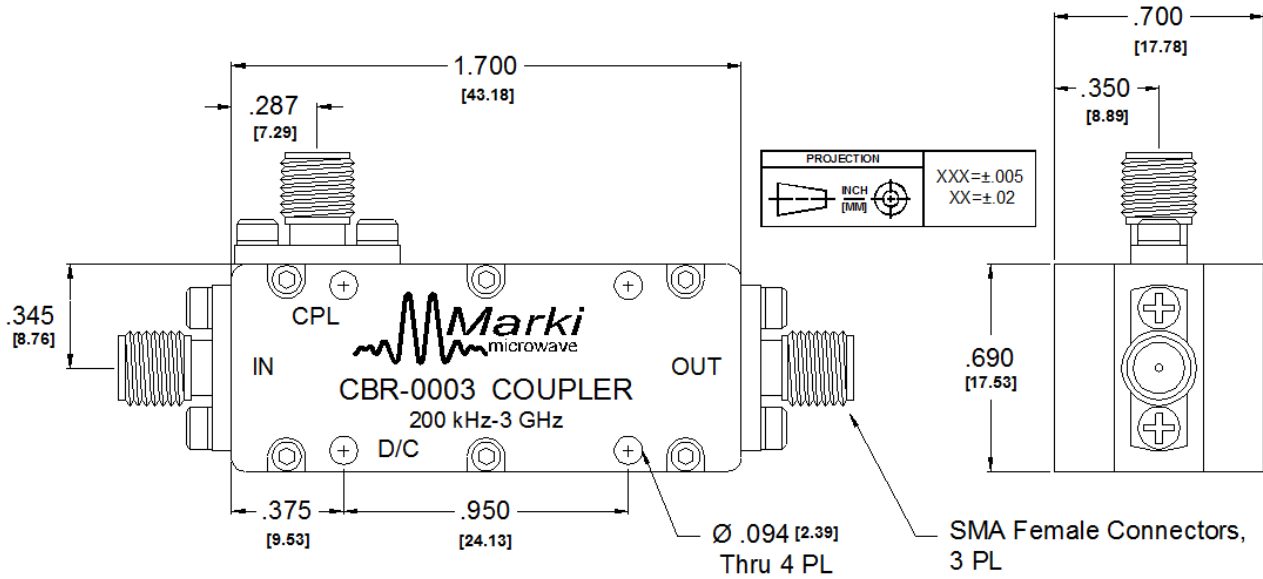
Forward & reflected power measurement using high directivity bridge coupler



**Mechanical Data**

**Outline Drawing**

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



**DISCLAIMER**

MARKI MICROWAVE, INC., ("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, Inc. All other trademarks used are the property of their respective owners.

© 2019, Marki Microwave, Inc