

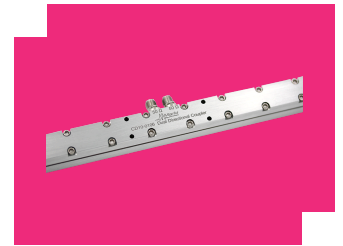
CD10-0106

DUAL DIRECTIONAL COUPLER

DEVICE OVERVIEW

General Description

The CD10-0106 is an ultra high directivity 0.8-6.3 GHz, 10 dB dual directional coupler. The multisection tri-plate stripline design exhibits excellent coupling flatness and VSWR at all ports. Applications include reflectometry (return loss) measurements, level monitoring, etc. Custom designs are also available, contact the factory for details.



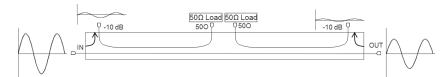
Features

- Dual Directional
- Ultra High Directivity
- Excellent Coupling Flatness
- Low VSWR

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
CD10-0106	DUAL DIRECTIONAL COUPLER	<u>Standard</u>	REACH RoHS	Released	EAR99

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Revision History

Revision Code	Revision Date	Comment
F	2020-04-01	Updated Direct Line IL specs
G	2025-01-07	Included Port Functions Table

Port Configuration and Functions

Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
-10dB	-10dB Coupled Output	SMAF	-10dB coupled output port	-
IN	RF Input	SMAF	RF Input Port	-
ISOL	Terminated	SMAF	Reversed termination	-
ISOL	Terminated	SMAF	Forward termination	-
OUT	RF Output	SMAF	RF Output Port	-

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
RF Power Handling	50	W

Package Information

Parameter	Details	Rating
Weight	-	132g
Dimensions	-	212.3 × 13.97 mm

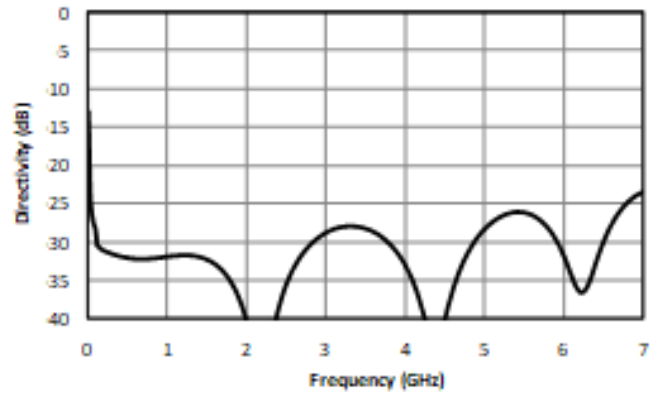
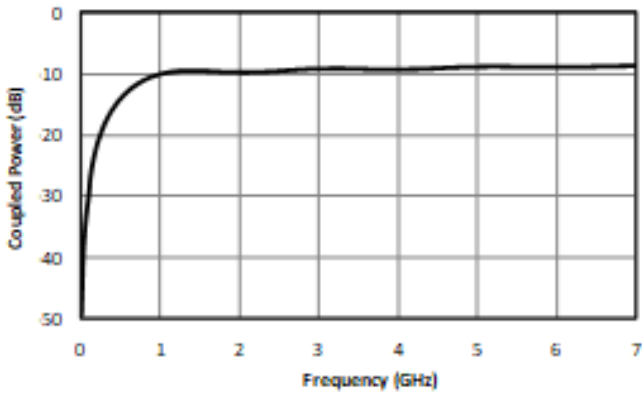
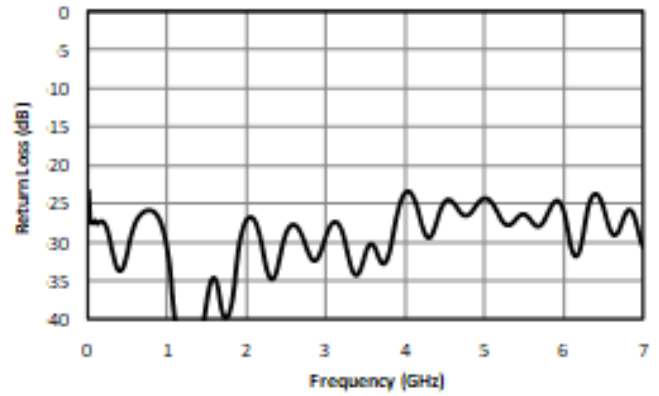
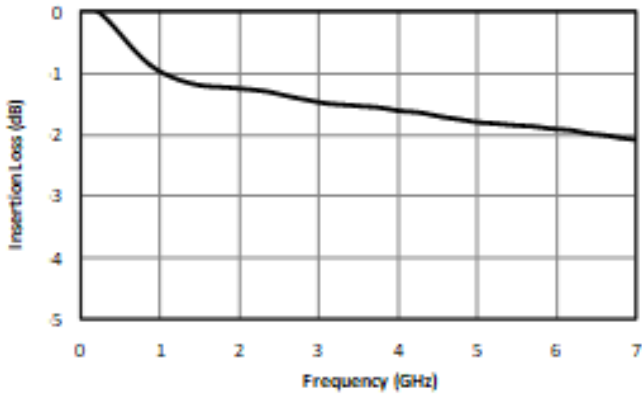
Electrical Specifications

Specifications guaranteed when operated in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Amplitude Flatness ¹	-	0.8	6.3	-	0.6	1.75	dB
Directivity	-	0.8	6.3	25	32	-	dB
Direct Line Insertion Loss	DC-6.3	-	-	-	-	2.4	dB
Mean Coupling	-	0.8	6.3	-	10	-	dB
VSWR	-	0.8	6.3	-	1.14	1.28	

^[1] Deviation from average coupling.

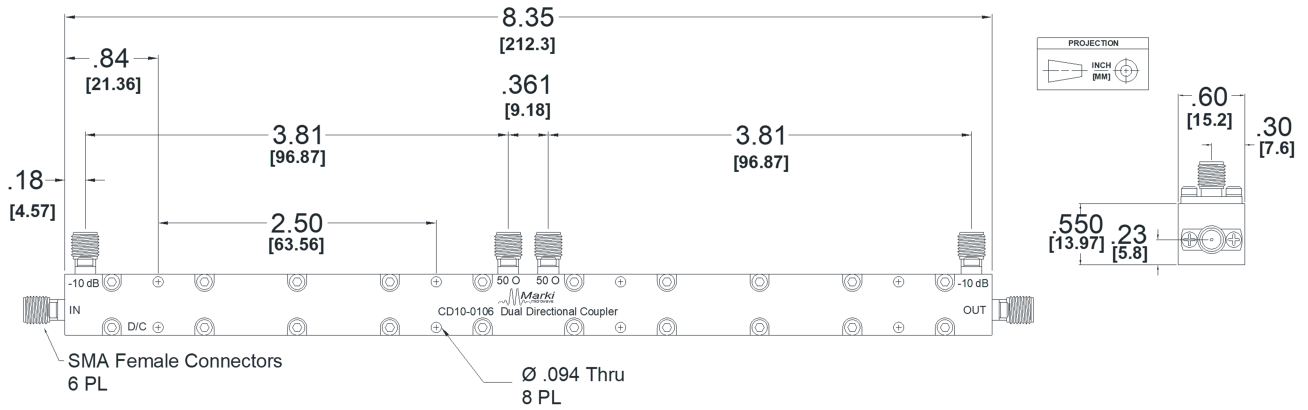
Typical Performance



Mechanical Data

Outline Drawing

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



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