

C09-0R412

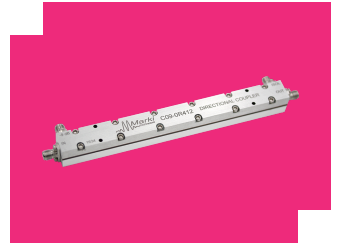
DIRECTIONAL COUPLER

DEVICE OVERVIEW

General Description

The C09-0R412 is a broadband 0.45-12 GHz, 9 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.

[Download s-parameters here](#)



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
C09-0R412	DIRECTIONAL COUPLER	<u>Standard</u>	REACH RoHS	Released	EAR99

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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
-9dB	-9dB Coupled Output	SMAF	-9dB coupled output port.	-
IN	RF Input	SMAF	Coupler RF input.	-
ISOL	Isolated	SMAF	Coupler isolated port.	-
OUT	RF Output	SMAF	Coupler output through port.	-

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
RF Power Handling	50	W
Minimum Operating Temperature	-55	°C
Maximum Operating Temperature	100	°C
Minimum Storage Temperature	-65	°C
Maximum Storage Temperature	125	°C

Package Information

Parameter	Details	Rating
Weight	-	90g
Dimensions	-	142.24 x 13.97 mm

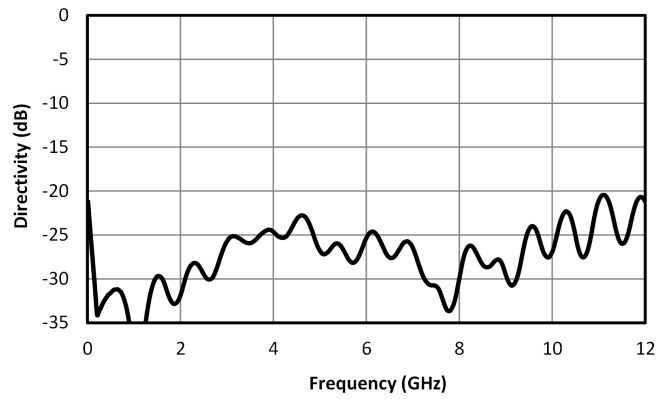
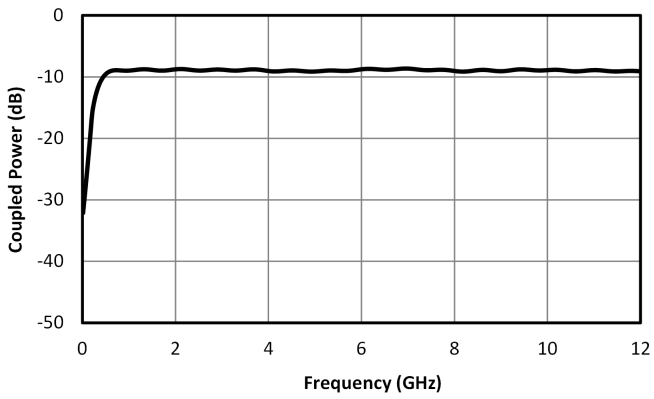
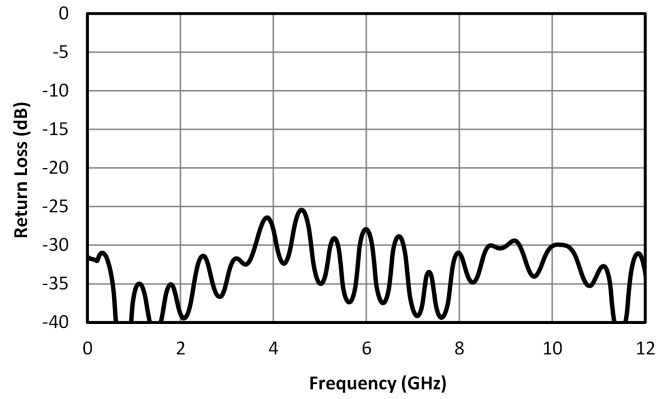
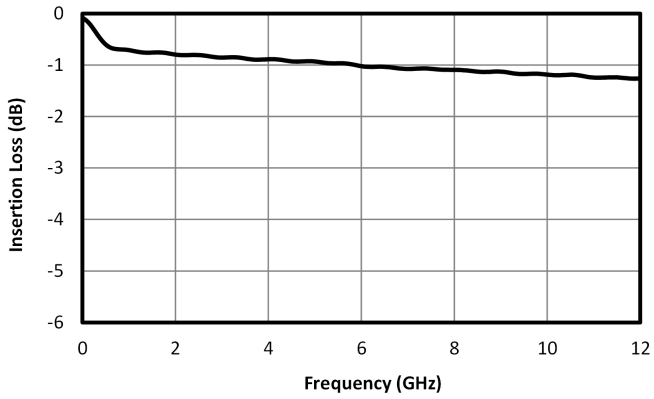
Electrical Specifications

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 ¹	-	0.45	12	-	0.7	1.4	dB
Directivity	-	0.45	12	15	22	-	dB
Direct Line Insertion Loss	DC -12 GHz	-	-	-	-	1.8	dB
Mean Coupling	-	0.45	12	-	9	-	dB
VSWR	-	0.45	12	-	1.15	1.4	

[1] Deviation from average coupling.

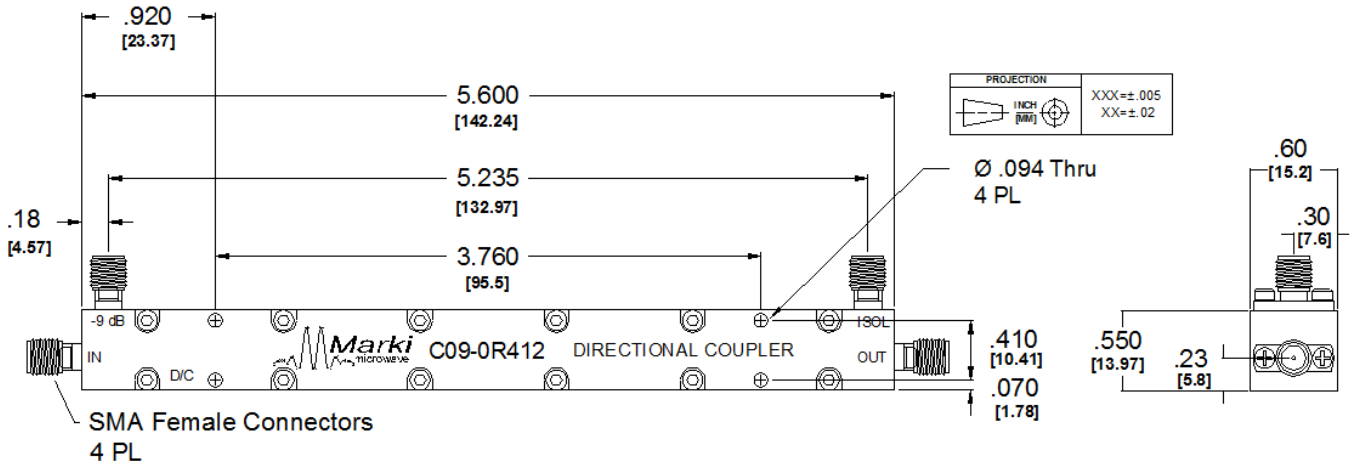
Typical Performance



Mechanical Data

Outline Drawing

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



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