

CA-18

AIR-LINE DIRECTIONAL COUPLER

DEVICE OVERVIEW

General Description

The CA-18 is a high power type N-connectorized bidirectional coupler capable of operation to 18 GHz. This coupler features a unique air-line construction that simultaneously enables extremely low loss and high directivity. This coupler can be used for low loss and high power applications. The useable operating frequencies extend below 1 GHz for applications where calibration of the frequency response is available.



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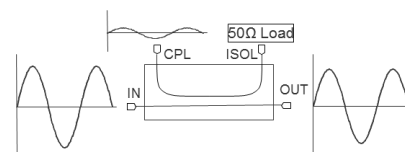
Features

- Low Insertion Loss
- High Power Handling
- Broadband Performance
- High Directivity

Applications

N/A

Functional Block Diagram



Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
CA-18	AIR-LINE DIRECTIONAL COUPLER	<u>Standard</u>	REACH RoHS	Released	EAR99

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Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-40	°C
Minimum Storage Temperature	-55	°C
RF Power Handling	200	W

Package Information

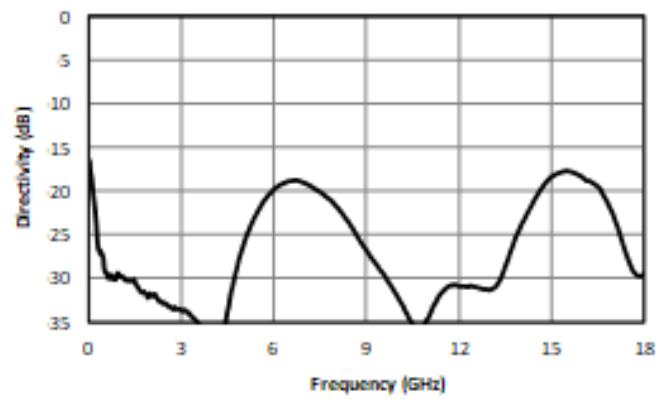
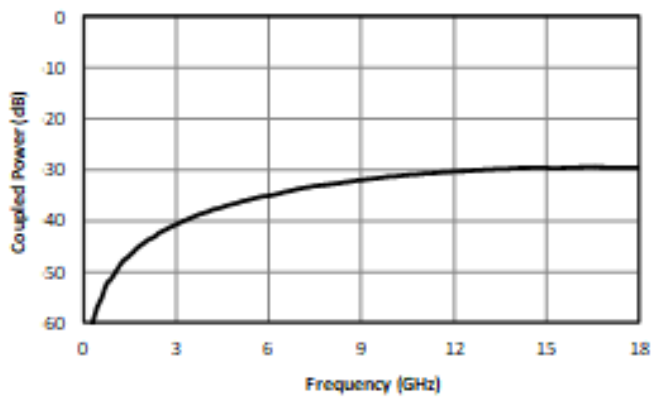
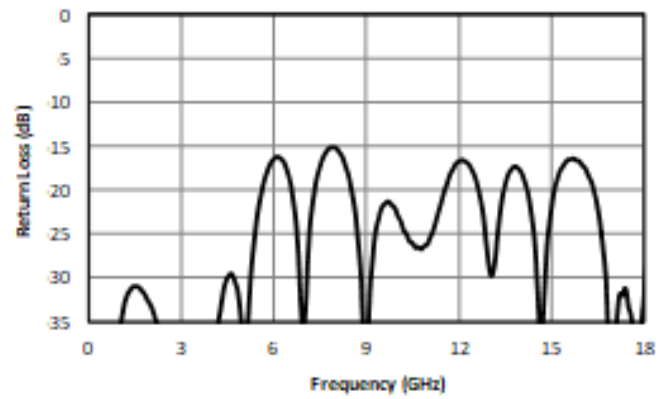
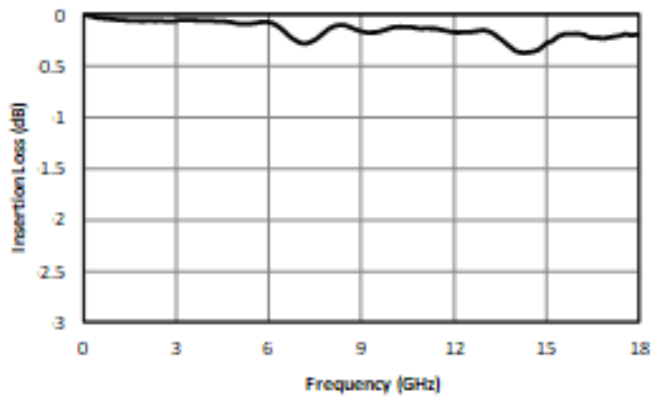
Parameter	Details	Rating
Weight	-	215g
Dimensions	-	50.8 × 42.67 mm

Electrical Specifications

Specifications guaranteed when operated in a 50Ω system.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Directivity	-	14	18	12	16	-	dB
Directivity	-	1	14	15	22	-	dB
Direct Line Insertion Loss	DC - 12 GHz	-	-	-	0.2	0.4	dB
Direct Line Insertion Loss	-	12	18	-	0.35	0.7	dB
Mean Coupling	-	1	1	-	50	-	dB
Mean Coupling	-	18	18	-	30	-	dB
VSWR	-	5	18	-	1.4	-	-
VSWR	-	1	5	-	1.2	1.35	-

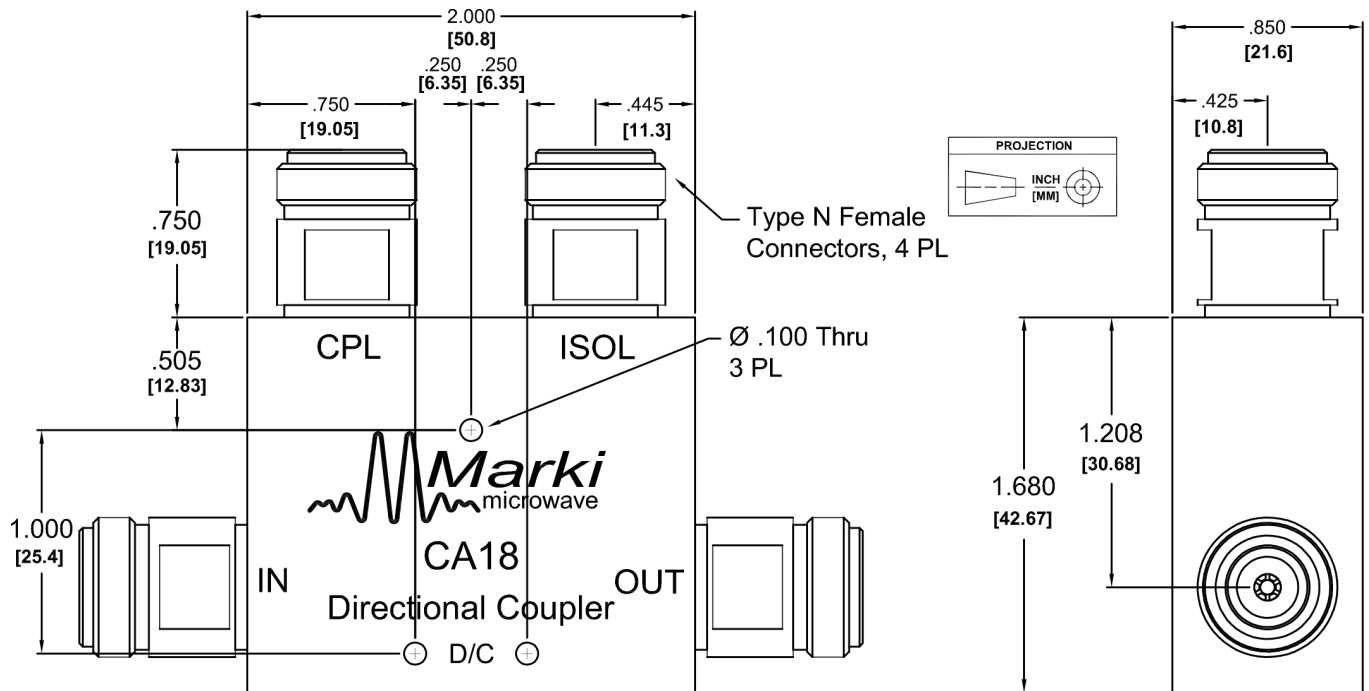
Typical Performance



Mechanical Data

Outline Drawing

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



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