AIR-LINE DIRECTIONAL COUPLER   CA-50

The CA-50 is a low loss directional coupler capable of operation to 50 GHz. This coupler features a unique air-line construction that simultaneously enables extremely low loss, minimal return loss, and outstanding directivity throughout the entire frequency range to 50 GHz. 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.
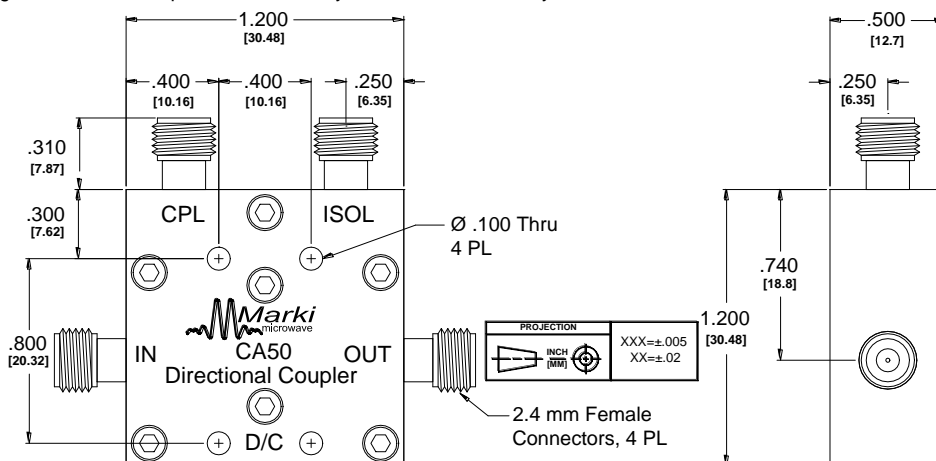
Features

- Low Insertion Loss and VSWR
- Broadband Performance
- High Directivity
- Compact Size and Lightweight
- Microwave Power Dividers & Couplers App Note

Electrical Specifications

Parameter[1]	Frequency Range (GHz)	Min	Typ	Max
Direct Line Insertion Loss (dB)	DC to 30		0.3	0.6
	30 to 50		0.5	1.0
Coupling (dB)	15-40	33	27	25
	1		53	
VSWR	1 to 18		1.1	1.4
	18 to 50		1.45	
Directivity (dB)	1 to 15	18	24	
	15 to 50	12	15	
Average Power (W)[2]				15
Weight (g)			36	

[1]Specifications guaranteed when operated in a 50Ω system. [2] Consult factory for more information.

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LEAD-FREE / RoHS-COMPLIANT
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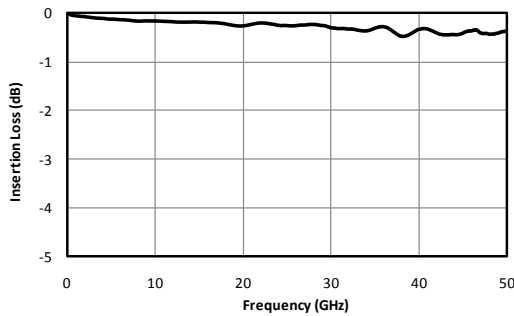## Typical Performance

Fig. 1. Direct line insertion loss.
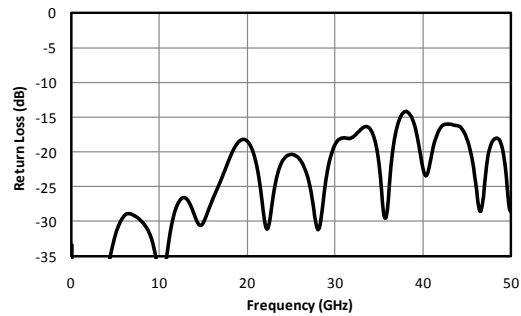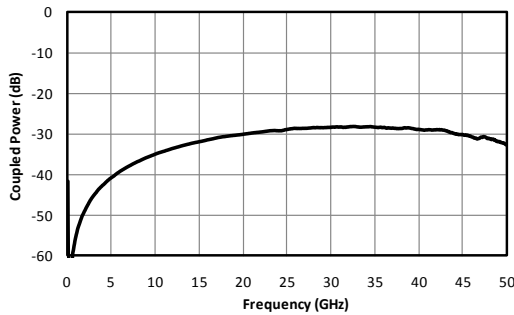

Fig. 2. Typical port return loss.
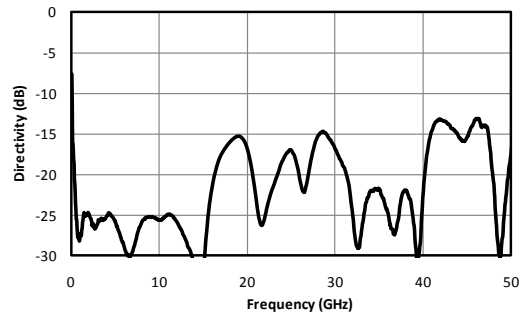

Fig. 3. Coupled port power.

Fig. 4. Typical directivity.

Model Number	Description
CA-50	Air-line Directional Coupler with 2.4 mm connectors operational to 50 GHz, LEAD-FREE/RoHS COMPLIANT

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ISO 9001
REGISTERED FIRM