

## LEAD-FREE / RoHS-COMPLIANT DIRECTIONAL COUPLER

### C17-0R512

The C17-0R512 is a high power, broadband bidirectional coupler capable of operation to 12 GHz. The multisection stripline design exhibits excellent coupling flatness and VSWR at all ports. This coupler is available with SMA and APC-7 connector option.

#### Features

- Low Insertion Loss
- High Power Handling
- Broadband Performance
- High Directivity
- Low VSWR
- [Microwave Power Dividers & Couplers App Note](#)

#### Electrical Specifications

Parameter <sup>1</sup>	Frequency Range (GHz)	Min	Typ	Max
Direct Line Insertion Loss (dB)	0.5		0.17	
	12		0.64	
	0.5-12			
Mean Coupling (dB)			17	
Amplitude Flatness (dB) <sup>3</sup>			±0.6	±1.2
VSWR			1.2	1.5 (1.7) <sup>2</sup>
Directivity (dB)		13	20	
Average Power (W)				80
Weight (g) <sup>4</sup>			600	

<sup>1</sup>Specifications guaranteed when operated in a 50Ω system.

<sup>2</sup>Max and min values given for SMA (APC-7) connectors

<sup>3</sup>Deviation from average coupling.

<sup>4</sup>Weight listed is for SMA connectorized package. Each APC-7 connector is an additional 50 grams.

Model Number	Description
C17-0R512	0.5-12 GHz 17 dB Directional Coupler with SMA connectors <sup>1</sup> <b>LEAD-FREE/RoHS COMPLIANT</b>

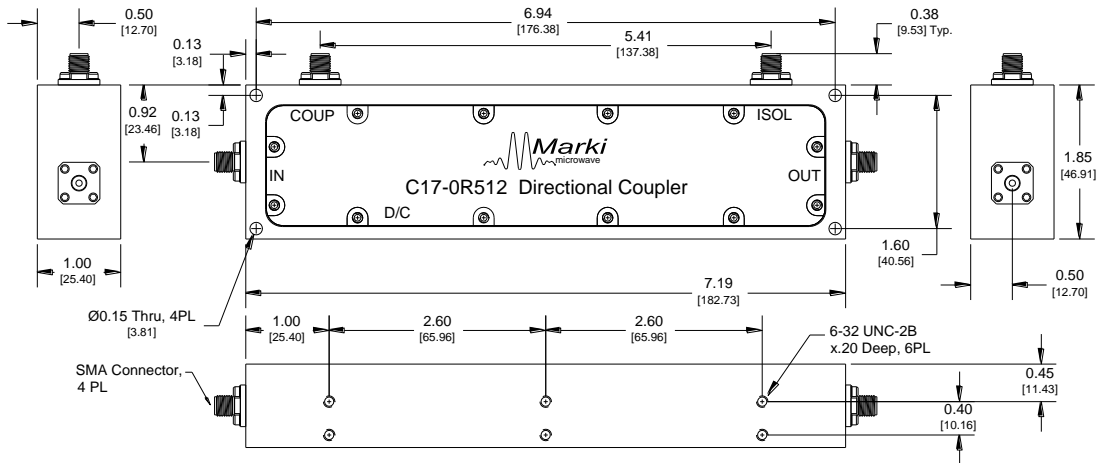
<sup>1</sup>Default is SMA female connectors. Use suffix 'A' for APC-7 version. Consult factory for other connector options.

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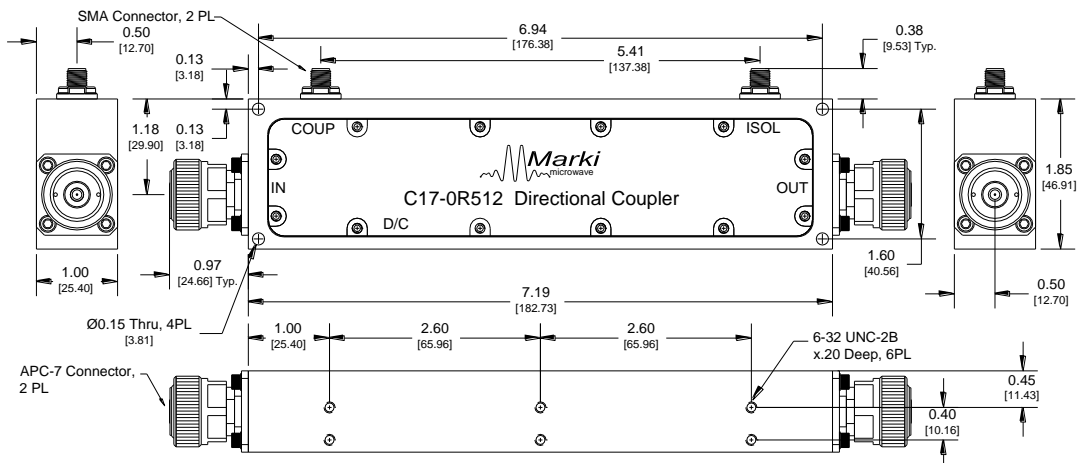
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## C17-0R512 Package Outline



## C17-0R512A Package Outline



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## Typical Performance

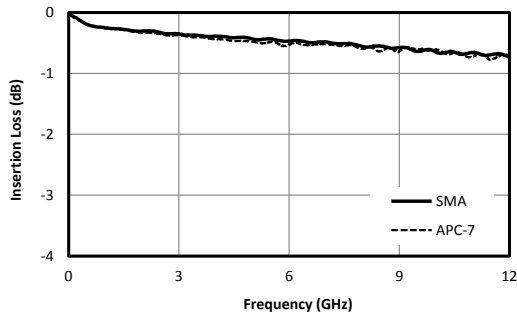


Fig. 1. Direct line insertion loss.

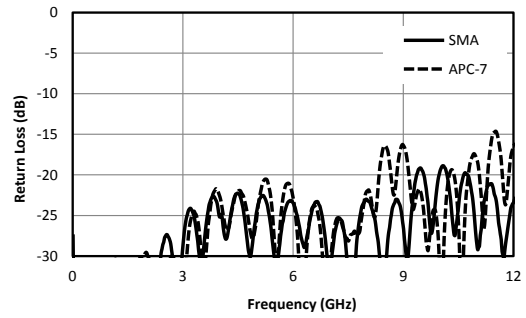


Fig. 2. Typical port return loss.

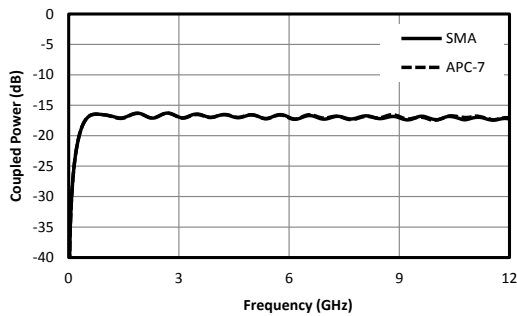


Fig. 3. Coupled port power.

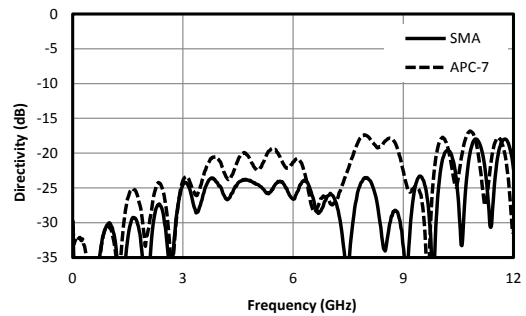


Fig. 4. Typical directivity.

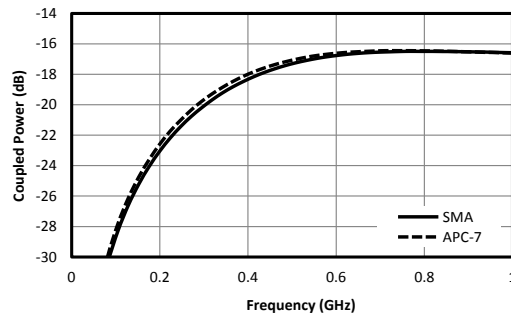


Fig. 5. Low frequency coupled port power



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### Revision History

Revision code	Revision Date	Comment
A	2/2021	Specs table update

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