



LEAD-FREE / RoHS-COMPLIANT

DIRECTIONAL COUPLER

C17-0R518

The C17-0R518 is a high power, broadband bidirectional coupler capable of operation to 18 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 ¹	Frequency Range (GHz)	Min	Typ	Max
Direct Line Insertion Loss (dB)	0.5		0.17	
	12		0.64	
	18		1	
				1.4 (1.6) ²
Mean Coupling (dB)	0.5-18		17.5	
Amplitude Flatness (dB) ³			±0.6	±1.2
VSWR	0.5-15		1.2	1.45 (2)
	15-18		1.35	
Directivity (dB)	0.5-15	15 (12)	20	
	15-18	12 (10)	16	
Average Power (W)				60
Weight (g) ⁴			600	

¹Specifications guaranteed when operated in a 50Ω system.

²Max and min values given for SMA (APC-7) connectors

³Deviation from average coupling.

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

Model Number	Description
C17-0R518	0.5-18 GHz 17.5 dB Directional Coupler with SMA connectors ¹ LEAD-FREE/RoHS COMPLIANT

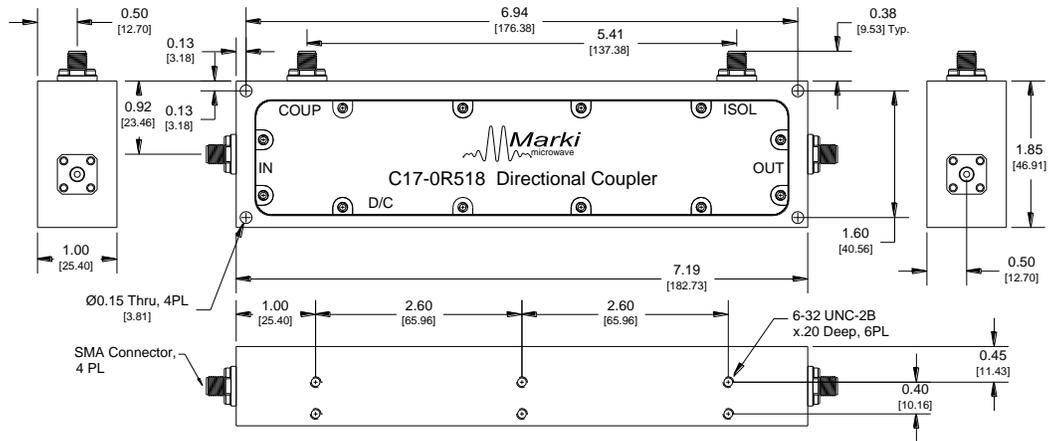
¹Default is SMA female connectors. Use suffix 'A' for APC-7 version. Consult factory for other connector options.

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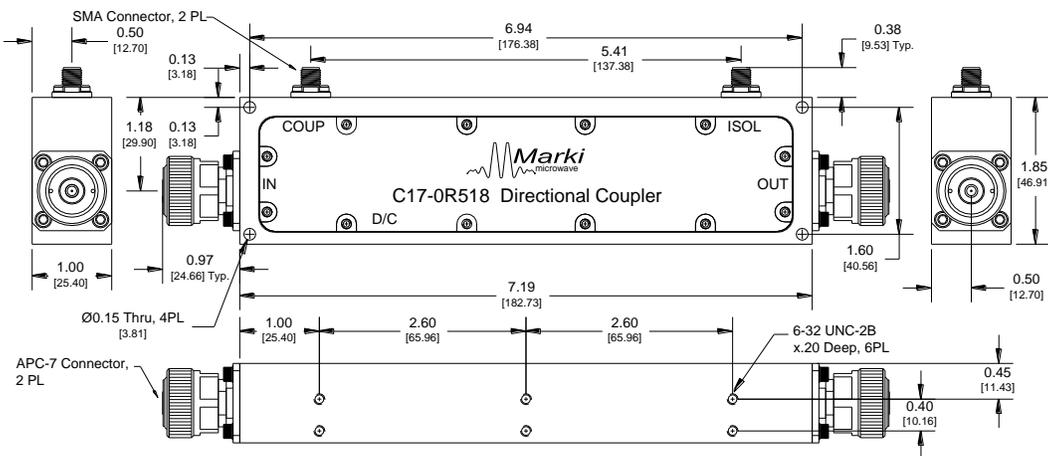
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C17-0R518 Package Outline



C17-0R518A Package Outline



Typical Performance

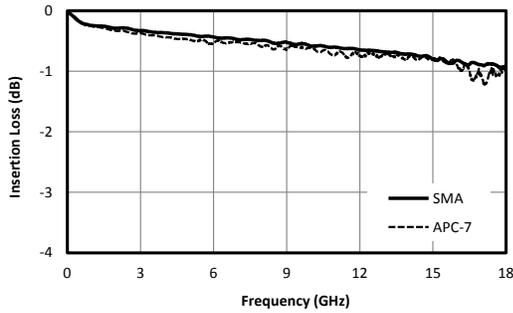


Fig. 1. Direct line insertion loss.

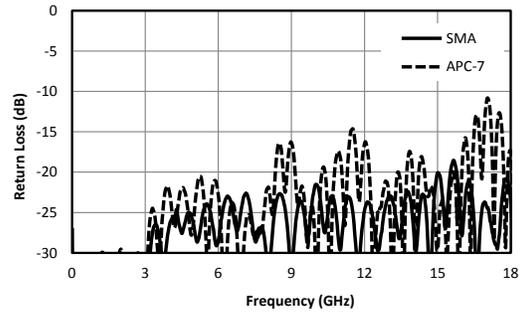


Fig. 2. Typical port return loss.

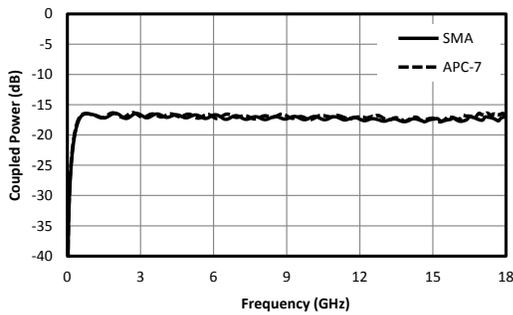


Fig. 3. Coupled port power.

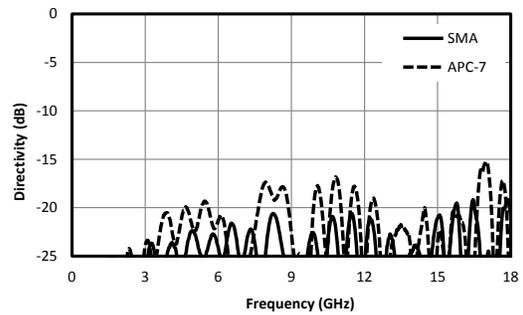


Fig. 4. Typical directivity.

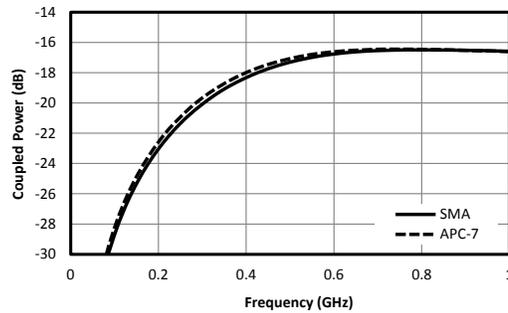


Fig. 5. Low frequency coupled port power

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