WERBEL MICROWAVE LLC
622 Route 10W, Ste 9, Whippany, N.J. 07981
Tel. (973) 515-3001 – Fax (973) 515-3004
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Directional Coupler 20 dB SMA Female from 6 GHz to 18 GHz

Directional Couplers Technical Data Sheet C-1806-20

Description

Directional couplers are used in signal monitoring and feedback loops for test equipment, amplification, and signal sampling. Small size is critical and Werbel Microwave model C-1806-20 measures only 1.00 x 0.60 x 0.38 inches. The model features 20 dB coupling over the bandwidth of 6-18GHz with high directivity, low insertion loss and excellent VSWR. Designed to handle 50 watts in both directions at room temperature. Enclosure is aluminum. SMA female connectors are stainless steel. Painted gray. Made in USA.

Specification	Min	Typ.	Max	Units
Frequency	6		18	GHz
Impedance		50		Ohm
Coupling		20	±1.25	dB
Frequency Sensitivity (Flatness)		± 0.30	±1.00	dB
Insertion Loss Measured at Highest Frequency (above theoretical coupling/splitting loss)		0.56	0.65 (0.50)	dB
Directivity	12	16		dB
Main Line VSWR		<1.35	1.40	:1
Secondary Line VSWR		<1.40	1.50	:1
Input Power (CW) into 1.2:1 max load VSWR			50	Watts
Reverse Power (CW) into 1.2:1 max load VSWR			50	Watts
Termination			1	Watt

Mechanical

Connector Interface	SMA-Female
Operating Temperature*	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight	0.8 oz (22.7 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

RoHS and REACH Compliant

Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Gray Paint

* Design to meet based on materials. Production-tested at +25 °C. External heatsink and convection cooling recommended to maintain body temperature below +50 °C.

WERBEL MICROWAVE RoHS COMPLIANT REACH

MADE IN USA

ISO 9001:2015 Certified Company

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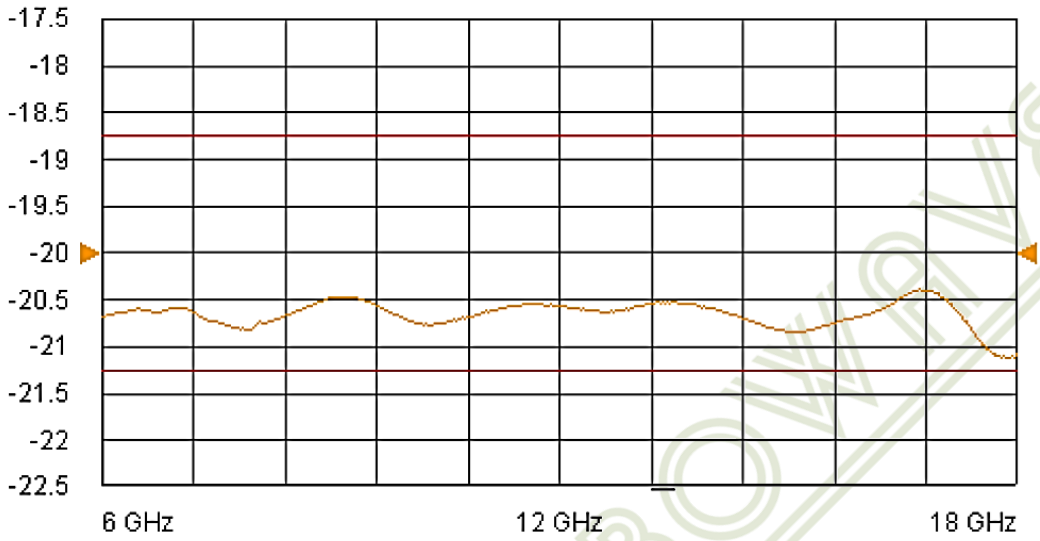
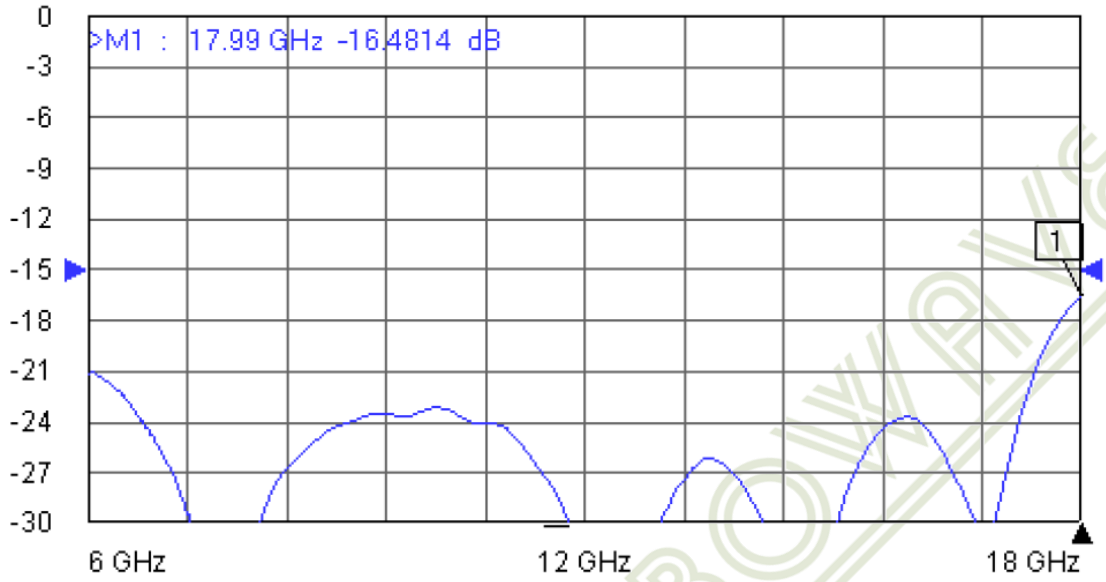
Typical Performance at +25 °C

Coupling Value and Flatness

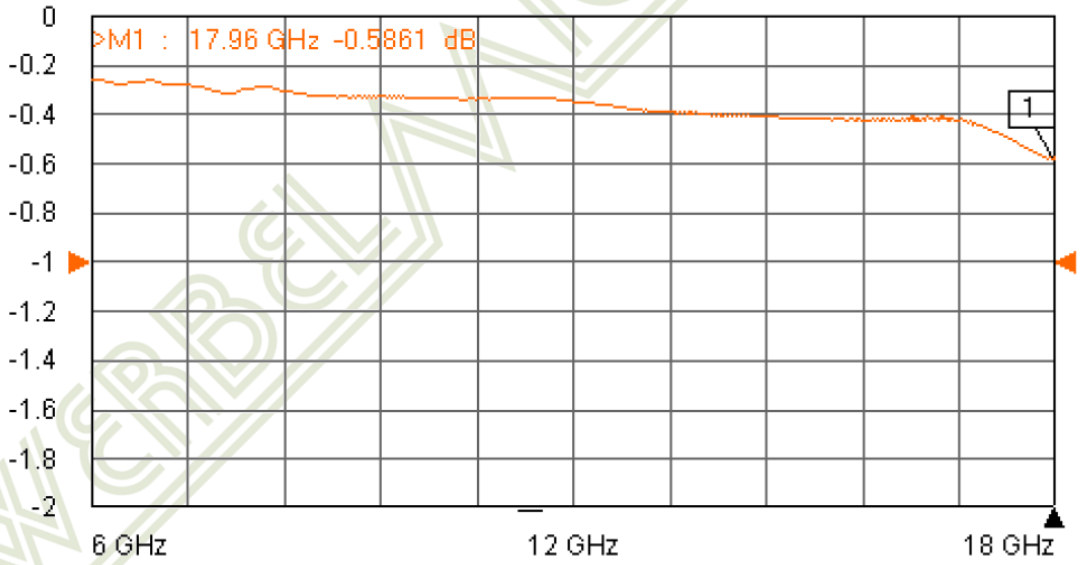


Directionality

Return Loss



Insertion Loss



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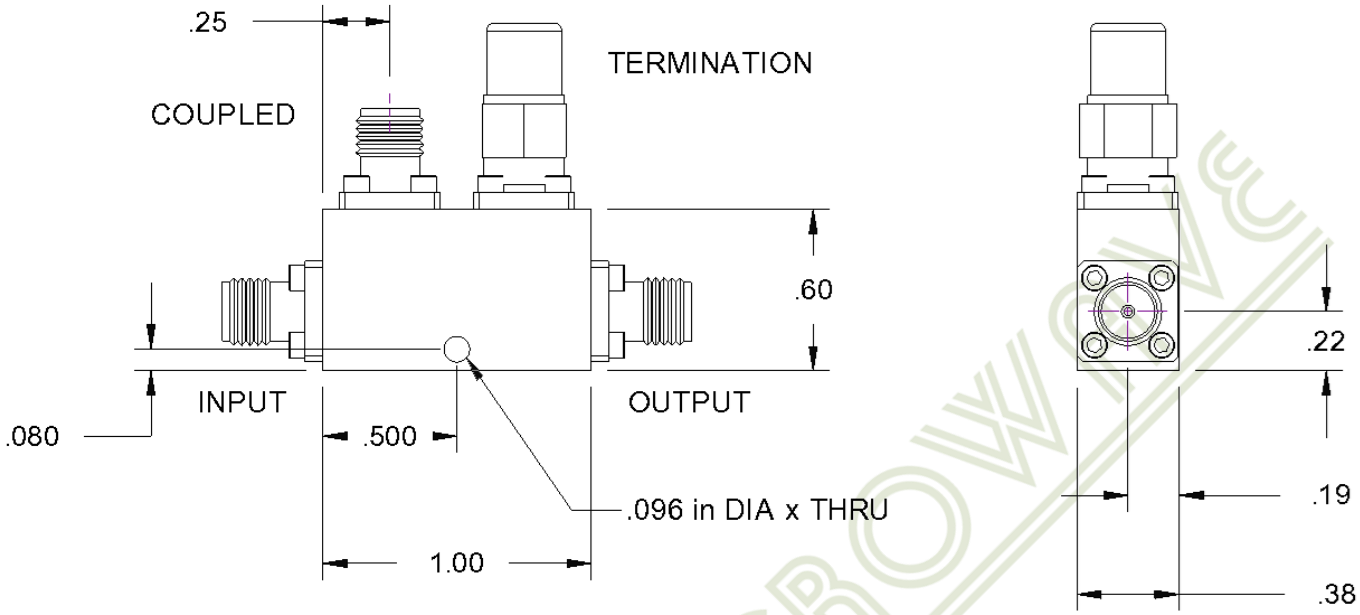
Outline Dimensions



Outline # OL-1006
Dimensions are in inches, [mm] shown for convenience.
Tolerances on 2-pl decimals: ±.03. 3-pl decimals: ± .015.