

High Power Directional Coupler 20 dB N Female from 698 MHz to 2.7 GHz

Directional Couplers Technical Data Sheet

CN-1727-20

Description

High Power Directional couplers are typically used at the output of a power amplifier to monitor the forward and reverse power, to adjust gain control loop and to provide a reflection monitor. Low insertion loss, excellent VSWR and high directivity are part of Werbel Microwave's design values.



The CN-1727-20 is part of Werbel Microwave's catalog of single and dual directional couplers that offer a wide range of coupling values and frequency ranges. Available with N female connectors.

Specification	Min	Typ.	Max	Units
Frequency	0.7		2.7	GHz
Impedance		50		Ohm
Coupling		20	± 1.0	dB
Frequency Sensitivity (Flatness)		± 0.13	± 1.0	dB
Insertion Loss Measured at Highest Frequency (above theoretical coupling/splitting loss)		0.28	0.40	dB
Directivity	20	25		dB
Main Line VSWR		1.20	1.35	:1
Secondary Line VSWR		1.20	1.35	:1
Input Power (CW) into 1.2:1 max load VSWR			100	Watts
Reverse Power (CW) into 1.2:1 max load VSWR			50	Watts
Termination			1	Watts

Mechanical

Connector Interface	N-Female
Operating Temperature*	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight	17 oz (482 g)
Humidity	10-90% non-condensing
Indoors Use Only	

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

Materials

RoHS and REACH Compliant

Enclosure	Aluminum
Connectors	Brass, Tri-Alloy Plated
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chem Film



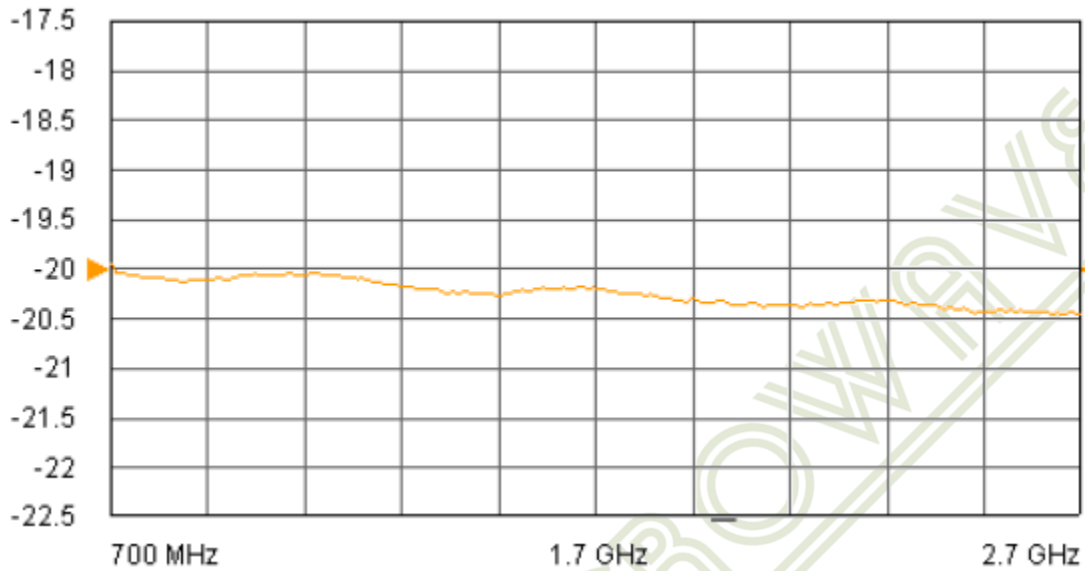
MADE IN USA

ISO 9001:2015

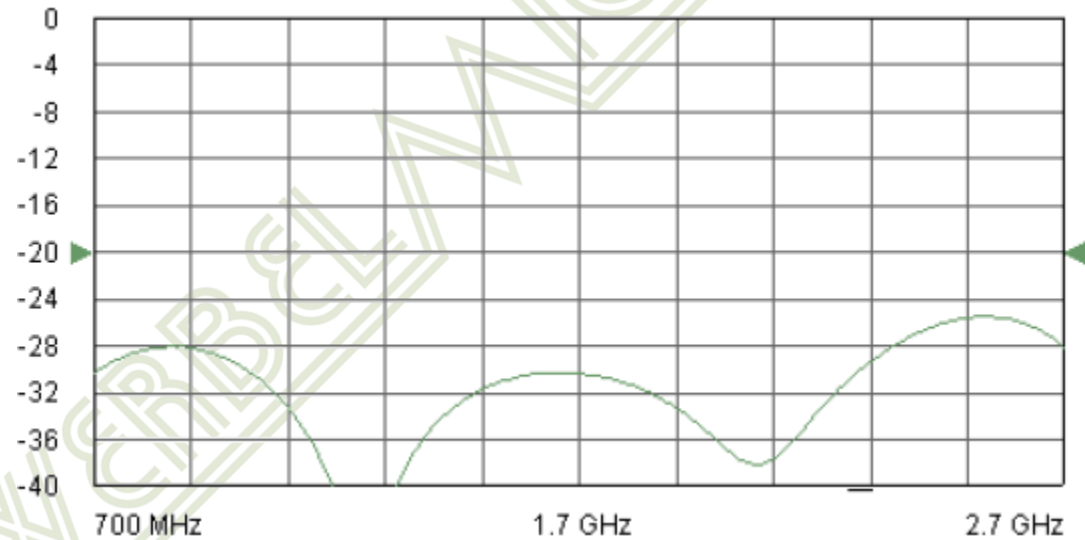
Certified Company

Typical Performance at +25 °C

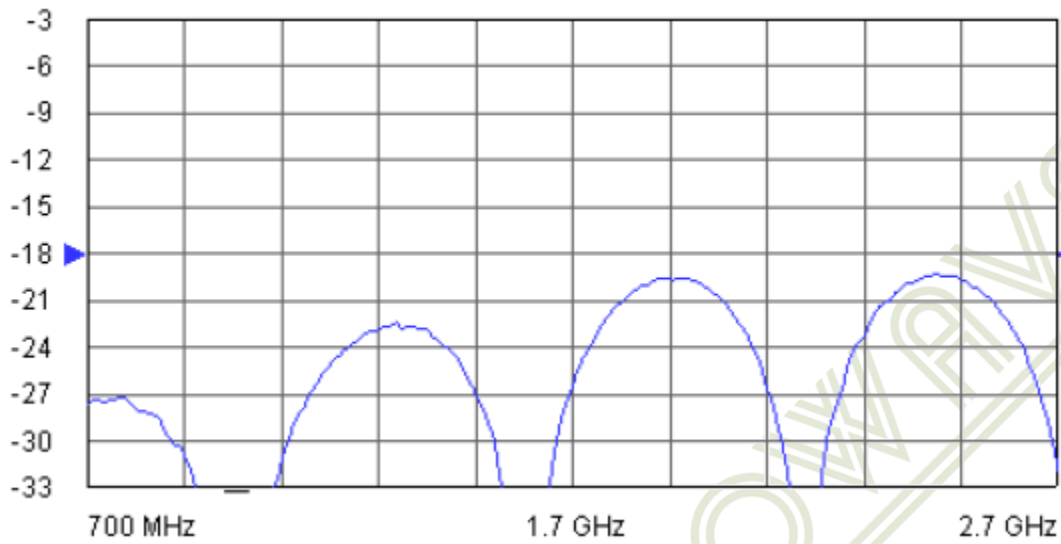
Coupling Value and Flatness



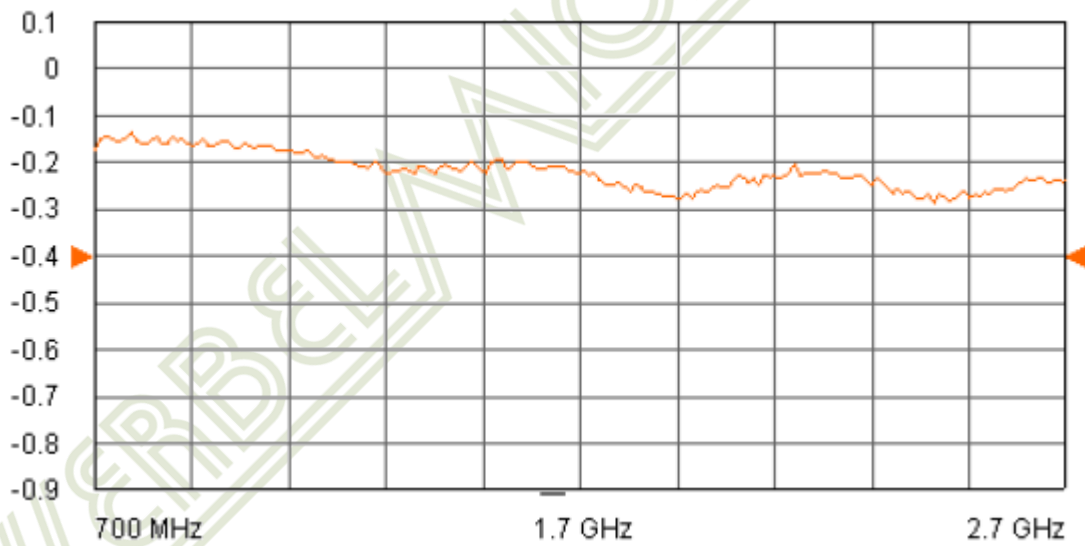
Directionality



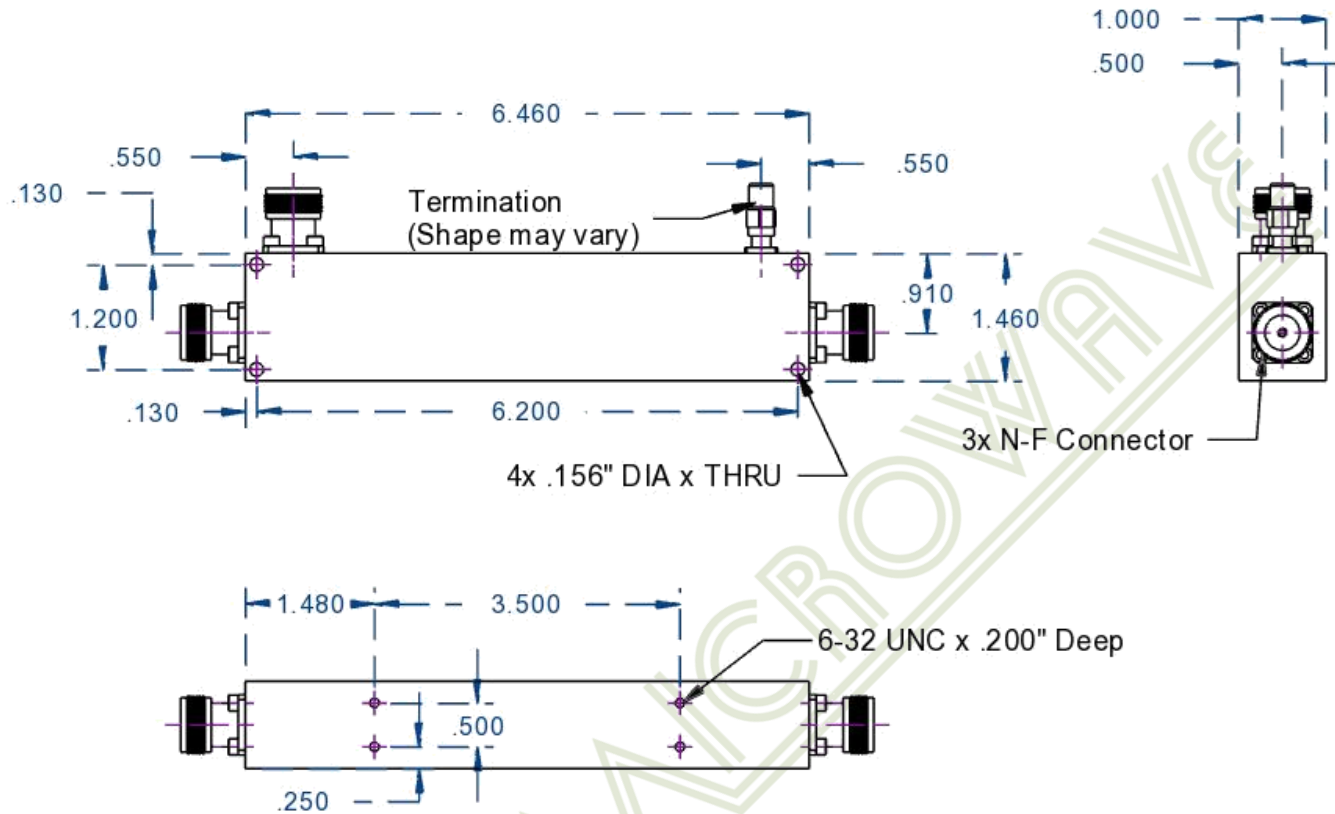
Return Loss



Insertion Loss



Outline Dimensions



Outline # OL-1760

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals: $\pm .03$. 3-pl decimals: $\pm .015$.

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