APTDC-10-00130052-N

High Power Directional Coupler 20 dB N Female 130 MHz to 520 MHz at 200 W

Directional Couplers Technical Data Sheet

Product Description

Directional couplers are important components for use in isolating, separating, replicating, and combining microwave signals. They can serve as accurate attenuator measurements as they eliminate reflections. They are incredibly useful in sampling RF signals for use in detectors, gain control and feedback loops.

The APTDC-20-00130052-N is part of AmpliTech's catalog of single and dual directional couplers that offer a wide range of coupling values and frequency ranges. The device comes with N female connectors.

Specifications	Min	Typ	Max	Min
Frequency	130		520	MHz
Impedance		50		Ohm
Coupling		20 ± 1.8		dB
Frequency Sensitivity (Flatness)			± 1.50	dB
Mainline Loss[1]			0.4	dB
Directivity	20	25		dB
Return Loss (In and Out)	17	24		dB
Return Loss (Coupling)	17	20		dB
Input Power (CW)[2]			200	Watts (CW)

Mechanical

Connector Interface	N-Female
Operating Temperature[2]	-55 to +85 °C
Storage Temperature	-55 to +100 °C
Weight Estimate	20 oz (570 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

Materials

RoHS /REACH Compliant[3]	Yes
Enclosure	Aluminum
Connectors	Brass, Tri-Alloy Plate
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish	Clear Chem Film

1. Mainline loss includes coupling loss.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR
3. Electrical specifications at +25 °C only.
4. To the best of our knowledge at the time of publication.
5. Non-RoHS solder is available upon request.

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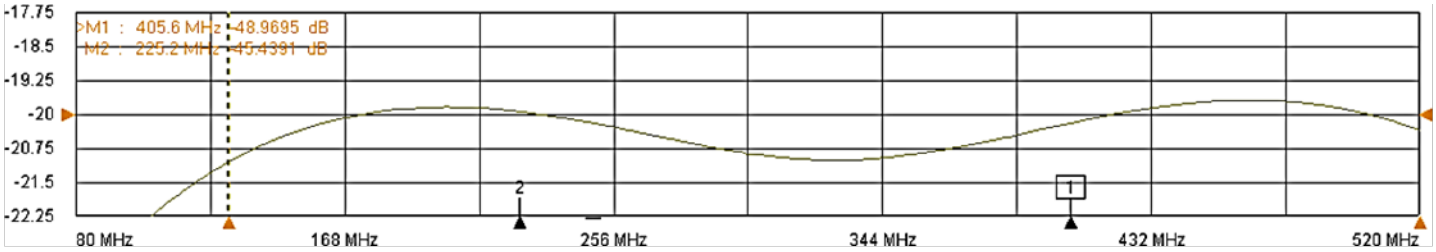
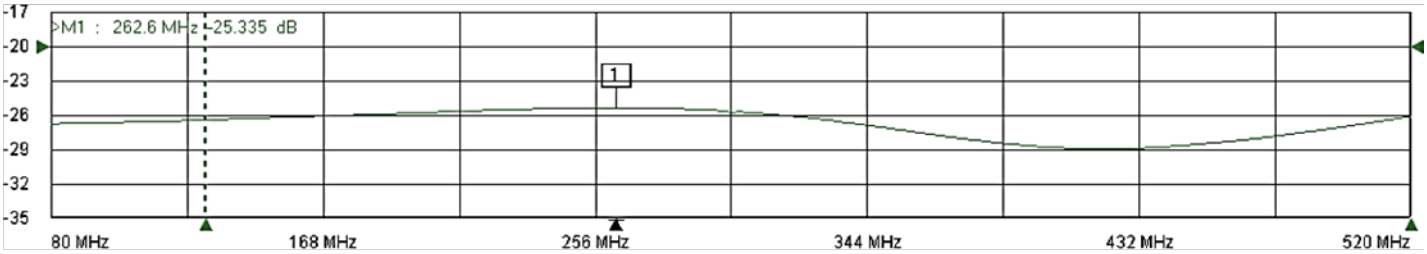
Typical Performance at +25 °C

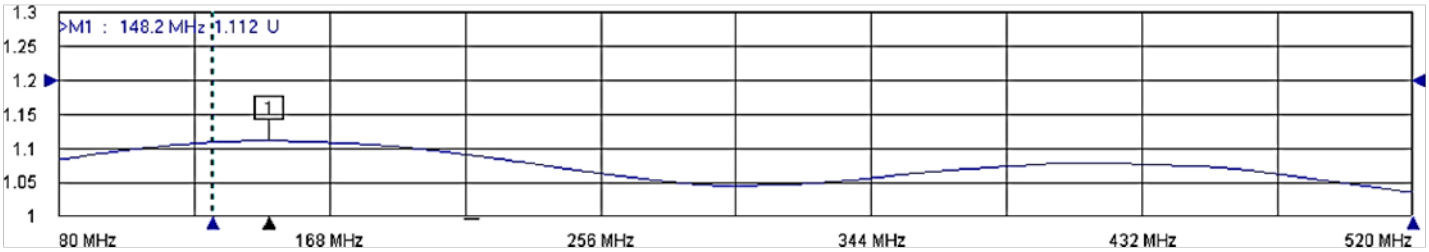
Coupling Value and Flatness



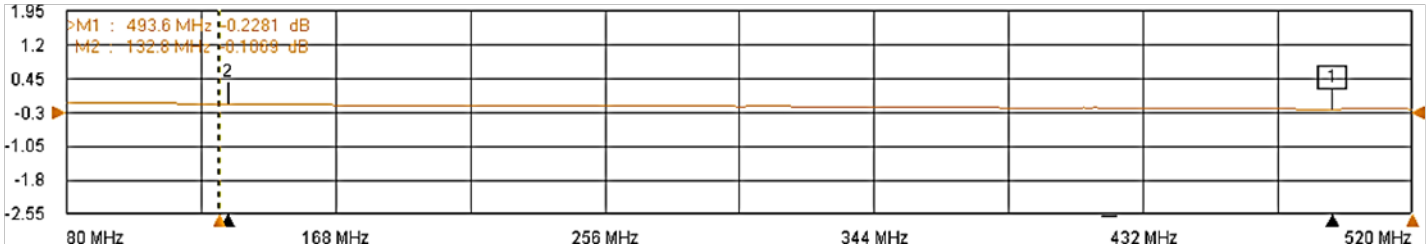
Directionality



Return Loss



Insertion Loss



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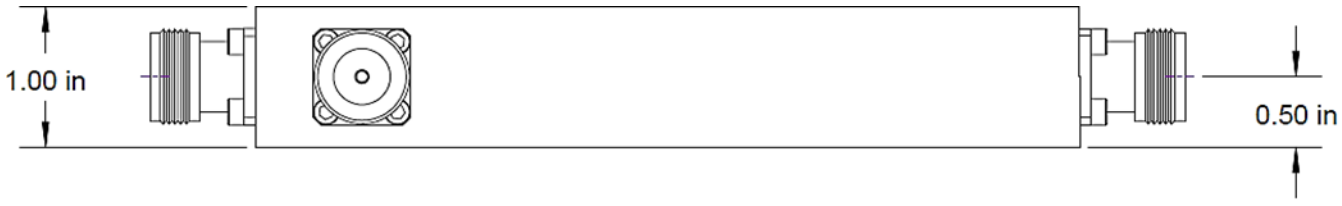
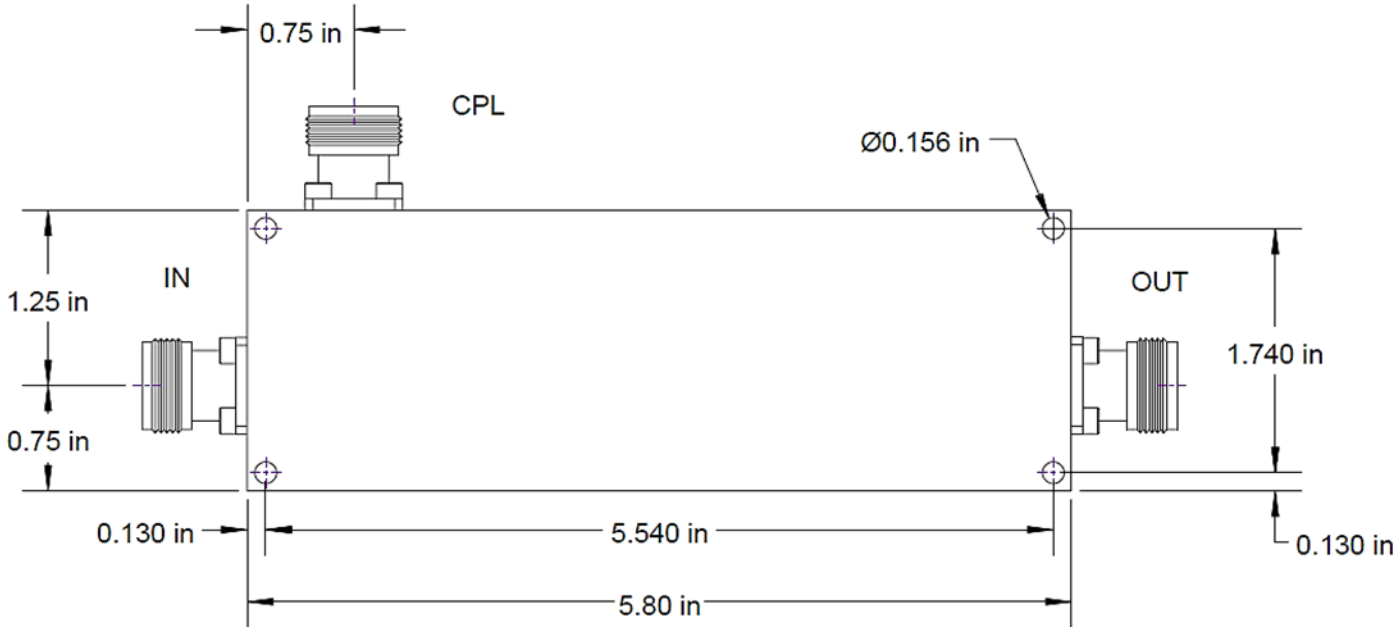
Outline Dimensions





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

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