

# Directional Coupler

Low PIM (-161 dBc), 600-6000 MHz, 500 W

ventev®

Connect, Protect, and Enable™

Ventev's Directional Couplers are ultra-wideband covering 600-6000 MHz of frequency range and supporting cellular networks in 2G, 3G, 4G LTE, and 5G FR1 technologies. Highly reliable design offers low insertion and higher isolation with ultra-low PIM (-161 dBc). It can handle up to 500 W of power and is suitable for indoor and outdoor deployments (IP65). Available in range of coupling values in 4.3-10 Female and N-Female connector options.

## Features & Benefits

- Ultra-wideband design covering 600-6000 MHz ideal for signal distributions in any wireless networks.
- Highly reliable design with low insertion loss.
- 500 W power rating and ultra-low PIM (-161 dBc).
- Suitable for indoor and outdoor applications (IP67).



## Available Models

Description	With 4.3-10 Female Connector		With N-type Female Connector	
	MFG Part #	SKU	MFG Part #	SKU
5 dB Coupling	VEN-05DC-660-4F	609885	VEN-05DC-660-NF	609882
6 dB Coupling	VEN-06DC-660-4F	609886	VEN-06DC-660-NF	609899
7 dB Coupling	VEN-07DC-660-4F	609887	VEN-07DC-660-NF	609898
8 dB Coupling	VEN-08DC-660-4F	609888	VEN-08DC-660-NF	609897
10 dB Coupling	VEN-10DC-660-4F	609889	VEN-10DC-660-NF	609896
13 dB Coupling	VEN-13DC-660-4F	609890	VEN-13DC-660-NF	609895
15 dB Coupling	VEN-15DC-660-4F	609891	VEN-15DC-660-NF	609894
20 dB Coupling	VEN-20DC-660-4F	609884	VEN-20DC-660-NF	609893
30 dB Coupling	VEN-30DC-660-4F	609883	VEN-30DC-660-NF	609892

## Mechanical Specifications

Dimensions	4.8 x 1.6 x 1.1 in. (122.5 x 41 x 29 mm)
Weight	0.7 lb. (0.3 kg)
Color & Material	Black Aluminum
Mounting	Using Mounting Tabs

## Environmental Specifications

Ingress Protection	IP67
Operating Temperature	-31° to 185°F (-35° to 85°C)
Operating Humidity	Up to 95%
Application	Indoor/Outdoor



All product specifications are subject to change without notice or obligation.

# Directional Coupler

Low PIM (-161 dBc), 600-6000 MHz, 500 W

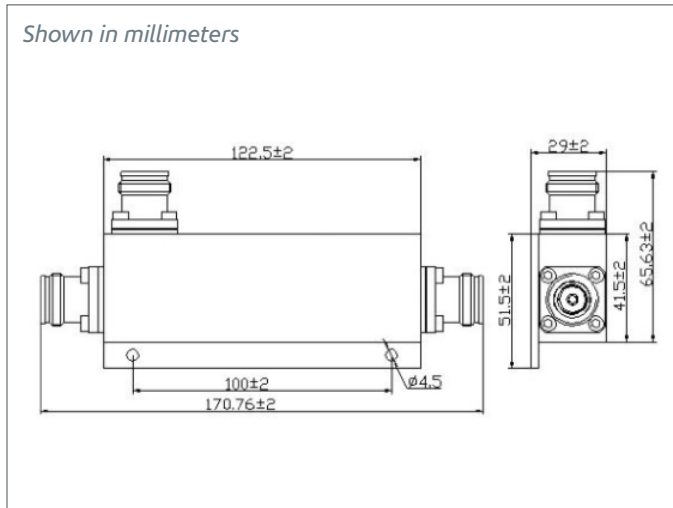


Connect, Protect, and Enable™

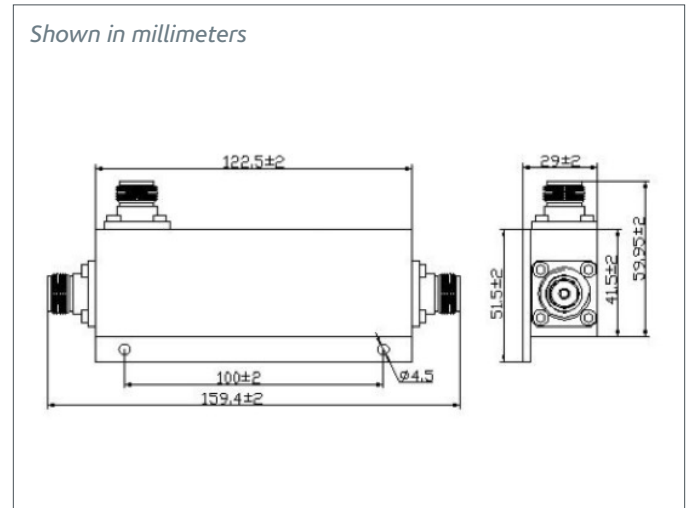
## Electrical Specifications

MFG Part #	VEN-05DC-660-xF	VEN-06DC-660-xF	VEN-07DC-660-xF	VEN-08DC-660-xF	VEN-10DC-660-xF	VEN-13DC-660-xF	VEN-15DC-660-xF	VEN-20DC-660-xF	VEN-30DC-660-xF
<b>Coupling</b>	5 dB	6 dB	7 dB	8 dB	10 dB	13 dB	15 dB	20 dB	30 dB
<b>Tolerance</b>	±1.3 dB	±1.3 dB	±1.4 dB	±1.4 dB	±1.4 dB	±1.5 dB	±1.5 dB	±1.6 dB	±1.7 dB
<b>Insertion Loss</b>	≤ 2.1 dB	≤ 1.8 dB	≤ 1.5 dB	≤ 1.2 dB	≤ 1.0 dB	≤ 0.7 dB	≤ 0.6 dB	≤ 0.4 dB	≤ 0.3 dB
<b>Isolation</b>	<b>600-2700</b>	≥ 24 dB	≥ 25 dB	≥ 26 dB	≥ 27 dB	≥ 29 dB	≥ 32 dB	≥ 33 dB	≥ 37 dB
	<b>2700-3800</b>	≥ 22 dB	≥ 23 dB	≥ 24 dB	≥ 25 dB	≥ 27 dB	≥ 30 dB	≥ 32 dB	≥ 35 dB
	<b>3800-4800</b>	≥ 20 dB	≥ 21 dB	≥ 22 dB	≥ 23 dB	≥ 25 dB	≥ 28 dB	≥ 30 dB	≥ 33 dB
	<b>4800-6000</b>	≥ 17 dB	≥ 18 dB	≥ 19 dB	≥ 20 dB	≥ 22 dB	≥ 25 dB	≥ 27 dB	≥ 30 dB
<b>VSWR</b>	<b>600-2700</b>	≤ 1.3	≤ 1.3	≤ 1.3	≤ 1.3	≤ 1.3	≤ 1.3	≤ 1.3	≤ 1.3
	<b>2700-6000</b>	≤ 1.35	≤ 1.35	≤ 1.35	≤ 1.35	≤ 1.35	≤ 1.35	≤ 1.35	≤ 1.35
<b>3rd Order PIM</b>	-161 dBc at 2x 43 dBm Carrier								
<b>Power Rating</b>	500 W (3 kW Peak)								
<b>Impedance</b>	50 Ohms								
<b>Connectors</b>	N-Female or 4.3-10 Female								

### 4.3-10 F Connector Dimensions



### N-F Connector Dimensions



All product specifications are subject to change without notice or obligation.