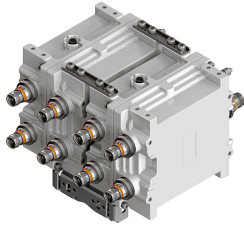


# CDX68Q-DS-43 | E14F05P92

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## 4 Pack Diplexer 617-803/817-894 MHz, DC Sense, 4.3-10

- Automatic dc switching with dc sense
- Convertible mounting brackets
- Stackable in multiples with included hardware

### Product Classification

**Product Type** Diplexer

### General Specifications

**Color** Gray

**Common Port Label** Common

**Modularity** 4-Quad

**Mounting** Pole | Wall

**Mounting Pipe Hardware** Band clamps (2)

**RF Connector Interface** 4.3-10 Female

**RF Connector Interface Body Style** Long neck

### Dimensions

**Height** 181 mm | 7.126 in

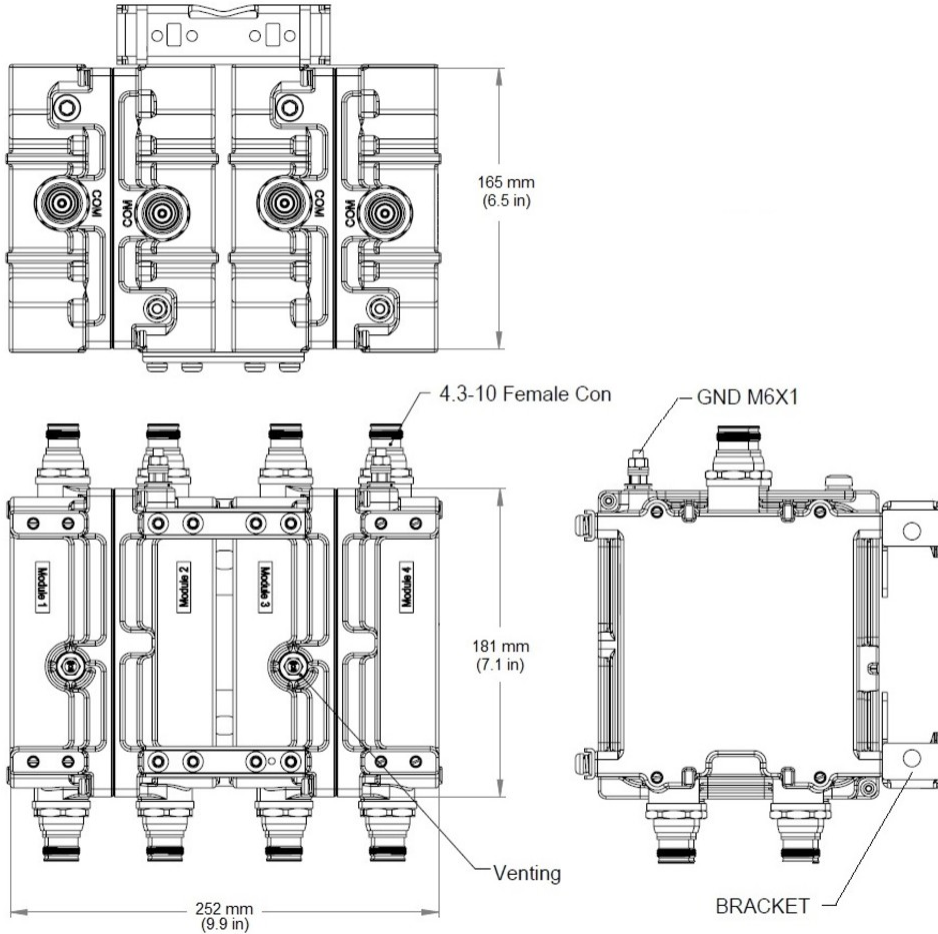
**Width** 165 mm | 6.496 in

**Depth** 252 mm | 9.921 in

**Ground Screw Diameter** 6 mm | 0.236 in

### Outline Drawing

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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>License Band, Band Pass</b>	CEL 850   USA 700   USA 750

## Electrical Specifications, Common Port

<b>Composite Power, RMS</b>	200 W
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## Electrical Specifications, dc Power/Alarm

<b>dc/AISG Pass-through Method</b>	Auto sensing
<b>dc/AISG Pass-through Path</b>	See logic table
<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform

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## Electrical Specifications, AISG

<b>AISG Carrier</b>	2176 KHz ± 100 ppm
<b>Insertion Loss, maximum</b>	1 dB
<b>Return Loss, minimum</b>	15 dB

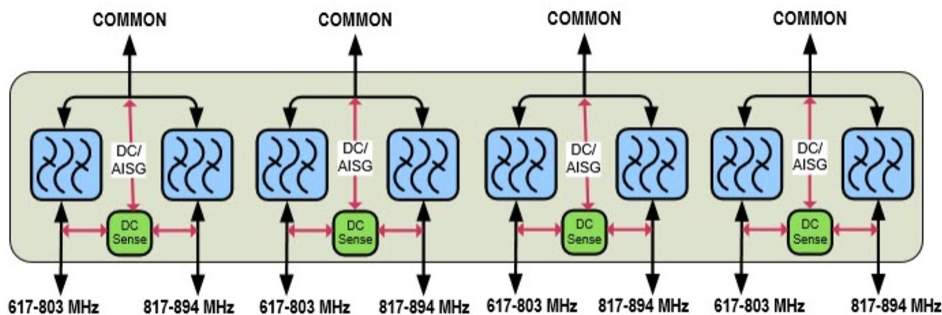
## Electrical Specifications

Sub-module	1   2   3   4	1   2   3   4	1   2   3   4	1   2   3   4
<b>Branch</b>	1	1	2	2
<b>Port Designation</b>	617-803	617-803	817-894	817-894
<b>License Band</b>	USA 700, Band Pass USA 750, Band Pass	USA 700, Band Pass USA 750, Band Pass	CEL 850, Band Pass	CEL 850, Band Pass

## Electrical Specifications, Band Pass

Frequency Range, MHz	617-798	798-803	817-824	824-894
<b>Insertion Loss, maximum, dB</b>	0.35	0.5	0.6	0.4
<b>Insertion Loss, typical, dB</b>	0.2	0.3	0.45	0.3
<b>Total Group Delay, maximum, ns</b>	40	60	65	40
<b>Return Loss, minimum, dB</b>	20			20
<b>Return Loss, typical, dB</b>	23			23
<b>Isolation, typical, dB</b>	50	40	40	50
<b>Input Power, RMS, maximum, W</b>	200			200
<b>Input Power, PEP, maximum, W</b>	2000			2000
<b>3rd Order PIM, minimum, dBc</b>	-161			-161
<b>3rd Order PIM Test Method</b>	2 x 20 W CW tones			2 x 20 W CW tones

## Block Diagram



## Logic Table

Combining Mode Operation (Ground Based)			
617–803 MHz	817–894 MHz	COMMON	DC/AISG Path Selection
<7 V	$7 \leq V \leq 30$	<7	617–803 MHz "OFF" 817–894 MHz to COMMON "ON"
$7 \leq V \leq 30$	<7 V	<7	617–803 MHz "ON" 817–894 MHz "OFF"
$7 \leq V \leq 30$	$7 \leq V \leq 30$	<7	617–803 MHz "ON" 817–894 MHz to COMMON "OFF"
V<7 or V>30	V<7 or V>30	<7	ALL ports OFF

Splitting Mode Operation (Tower top)			
RF Ports Input Voltage			DC/AISG Path Selection
617–803 MHz	817–894 MHz	COMMON	DC/AISG Path Selection
<7 V	<7 V	>7 V	617–803 MHz "ON" 817–894 MHz to COMMON "OFF"
$7 \leq V \leq 30$	<7 V	>7 V	ALL ports OFF
<7 V	$7 \leq V \leq 30$	>7 V	ALL ports OFF

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +65 °C (-40 °F to +149 °F)
<b>Relative Humidity</b>	5%–100%
<b>Corrosion Test Method</b>	IEC 60068-2-11, 30 days
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP67

## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Mounting Hardware Weight</b>	0.6 kg   1.323 lb
<b>Volume</b>	7.5 L
<b>Weight, without mounting hardware</b>	10 kg   22.046 lb