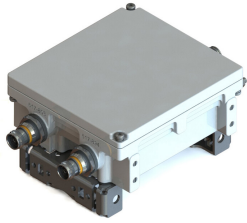


# CDX68-DS-43 | E14F05P90

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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** 1-Single

**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

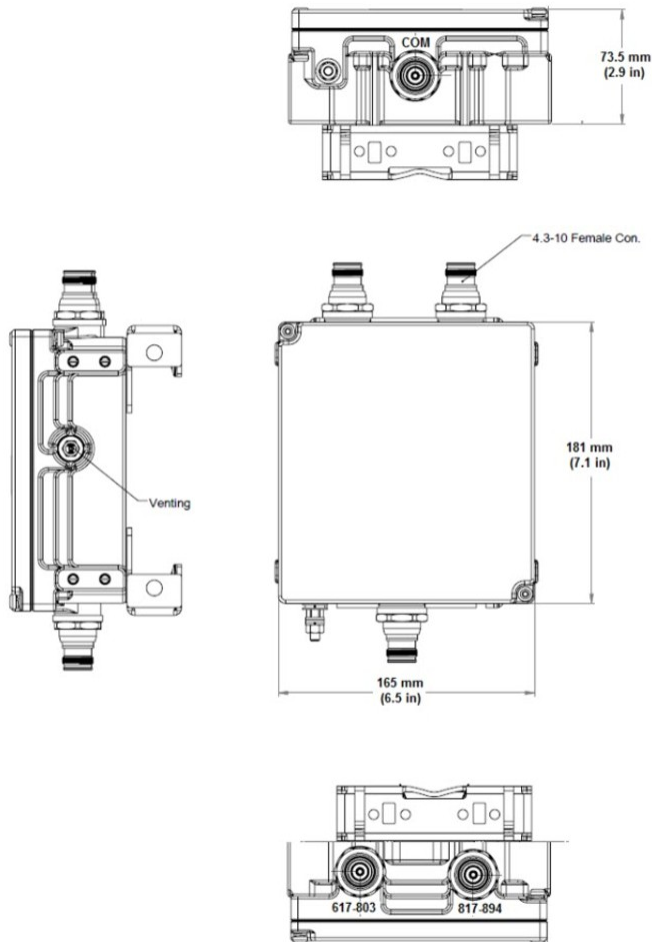
**Width** 165 mm | 6.496 in

**Depth** 73.5 mm | 2.894 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

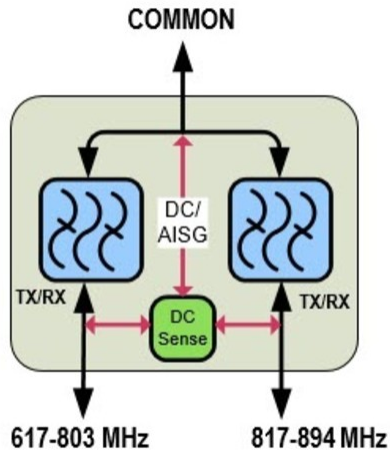
## Electrical Specifications

<b>Sub-module</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<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

<b>Frequency Range, MHz</b>	<b>617-798</b>	<b>798-803</b>	<b>817-824</b>	<b>824-894</b>
<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
$<7V$	$7 \leq V \leq 30$	$<7$	617-803 MHz "OFF" 817-894 MHz to COMMON "ON"
$7 \leq V \leq 30$	$<7V$	$<7$	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			
617-803 MHz	817-894 MHz	COMMON	DC/AISG Path Selection
$<7V$	$<7V$	$>7V$	617-803 MHz "ON" 817-894 MHz to COMMON "OFF"
$7 \leq V \leq 30$	$<7V$	$>7V$	ALL ports OFF
$<7V$	$7 \leq V \leq 30$	$>7V$	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

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<b>Included</b>	Mounting hardware
<b>Mounting Hardware Weight</b>	0.5 kg   1.102 lb
<b>Volume</b>	2.2 L
<b>Weight, without mounting hardware</b>	2.9 kg   6.393 lb