

CDX68-DS-43 | E14F05P90



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

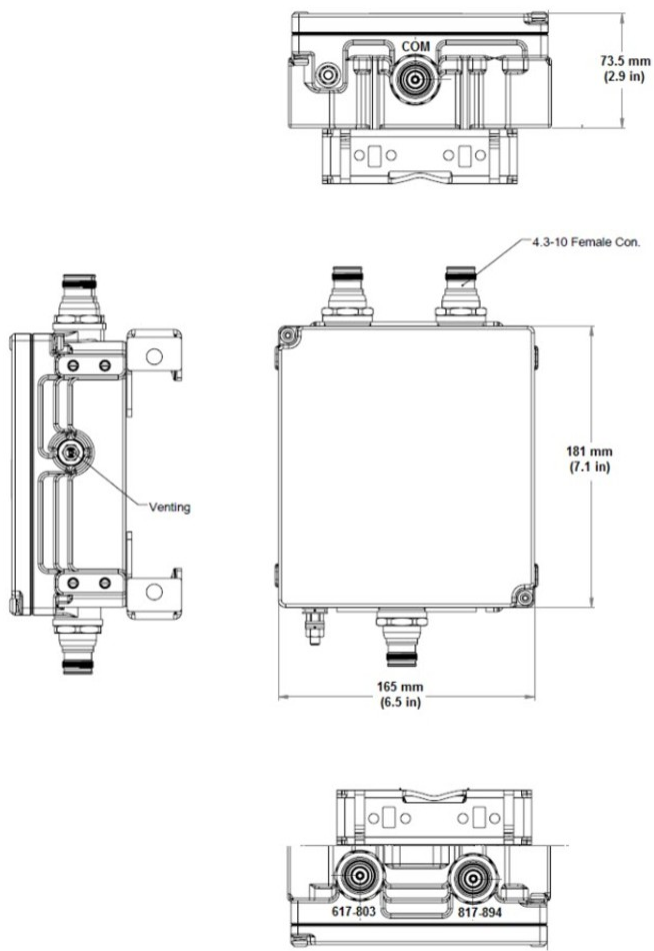
Width 165 mm | 6.496 in

Depth 73.5 mm | 2.894 in

Ground Screw Diameter 6 mm | 0.236 in

Outline Drawing

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Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	CEL 850 USA 700 USA 750

Electrical Specifications, Common Port

Composite Power, RMS	200 W
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Electrical Specifications, dc Power/Alarm

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

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Electrical Specifications, AISG

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

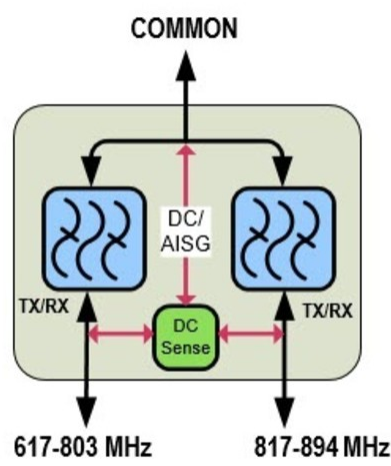
Electrical Specifications

Sub-module	1	1	1	1
Branch	1	1	2	2
Port Designation	617-803	617-803	817-894	817-894
License Band	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
Insertion Loss, maximum, dB	0.35	0.5	0.6	0.4
Insertion Loss, typical, dB	0.2	0.3	0.45	0.3
Total Group Delay, maximum, ns	40	60	65	40
Return Loss, minimum, dB	20			20
Return Loss, typical, dB	23			23
Isolation, typical, dB	50	40	40	50
Input Power, RMS, maximum, W	200			200
Input Power, PEP, maximum, W	2000			2000
3rd Order PIM, minimum, dBc	-161			-161
3rd Order PIM Test Method	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 ≤ V ≤ 30	<7	617–803 MHz "OFF" 817–894 MHz to COMMON "ON"
7 ≤ V ≤ 30	<7 V	<7	617–803 MHz "ON" 817–894 MHz "OFF"
7 ≤ V ≤ 30	7 ≤ V ≤ 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
<7 V	<7 V	>7 V	617–803 MHz "ON" 817–894 MHz to COMMON "OFF"
7 ≤ V ≤ 30	<7 V	>7 V	ALL ports OFF
<7 V	7 ≤ V ≤ 30	>7 V	ALL ports OFF

Environmental Specifications

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

Packaging and Weights

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