

# CBC7823-DS-43 | E14F60P03

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## Triplexer 700/850/1695-2360,dc Sense, 4.3-10

- New 4.3-10 connectors for improved PIM performance and size reduction
- Automatic dc switching with dc sense
- BTS-to-feeder and feeder-to-antenna application
- Convertible mounting brackets

## Product Classification

**Product Type** Triplexer

## General Specifications

**Product Family** CBC7823

**Color** Gray

**Common Port Label** Common

**Modularity** 1-Single

**Mounting** Pole | Wall

**RF Connector Interface** 4.3-10 Female

**RF Connector Interface Body Style** Long neck

## Dimensions

**Height** 176 mm | 6.929 in

**Width** 210 mm | 8.268 in

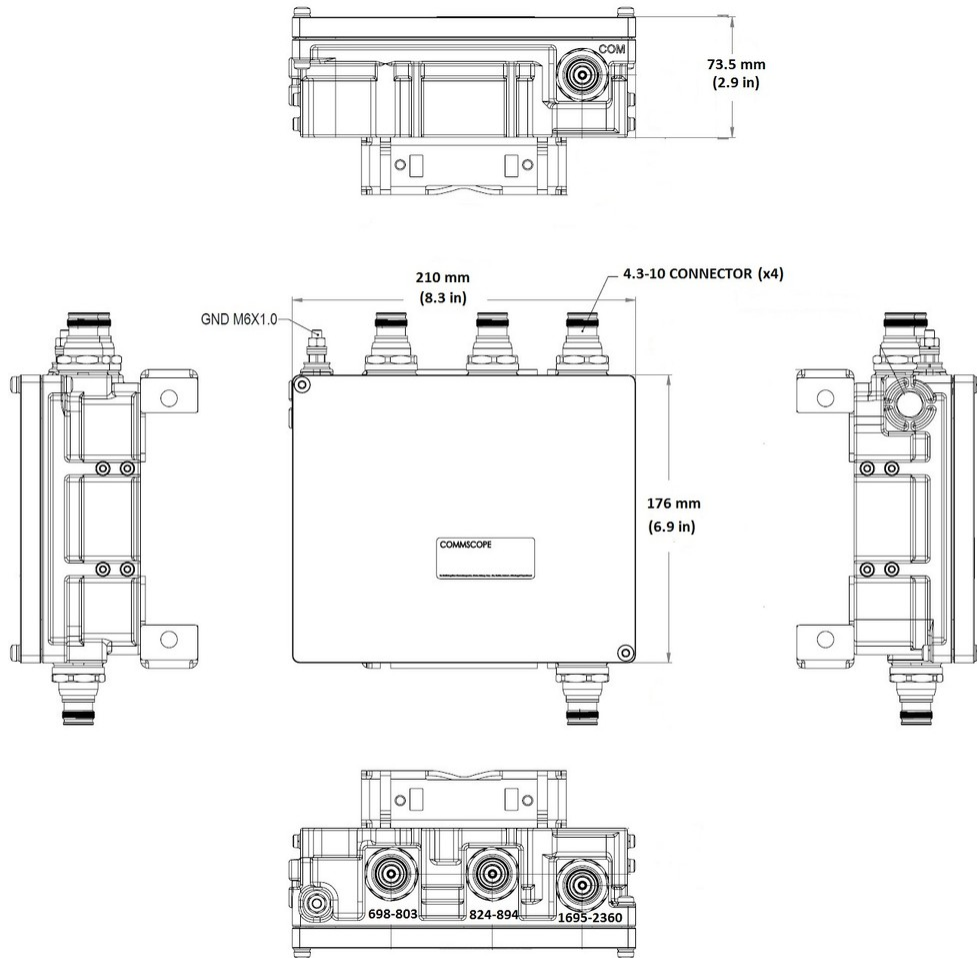
**Depth** 73.5 mm | 2.894 in

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

**Mounting Pipe Diameter Range** 40–160 mm

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## Outline Drawing



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>License Band, Band Pass</b>	AWS 1700   CEL 850   DCS 1800   IMT 2100   PCS 1900   USA 700   USA 750   WCS 2300

## Electrical Specifications, Common Port

<b>Composite Power, RMS</b>	250 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

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<b>Lightning Surge Current</b>	8 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Voltage</b>	7–30 Vdc

## 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

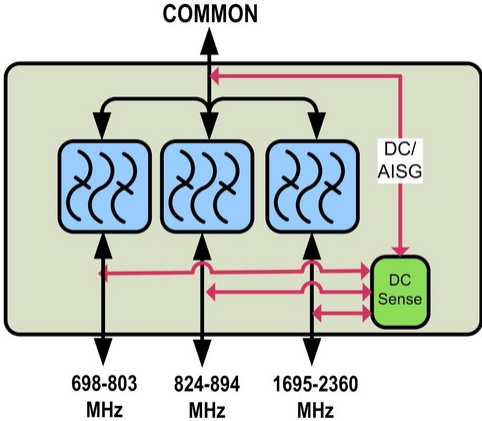
## Electrical Specifications

<b>Sub-module</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Branch</b>	1	2	3
<b>Port Designation</b>	698-803	824-894	1695-2360
<b>License Band</b>	USA 700, Band Pass USA 750, Band Pass	CEL 850, Band Pass	AWS 1700, Band Pass WCS 2300, Band Pass PCS 1900, Band Pass

## Electrical Specifications, Band Pass

<b>Frequency Range, MHz</b>	<b>698–803</b>	<b>824–894</b>	<b>1695–2360</b>
<b>Insertion Loss, typical, dB</b>	0.15	0.2	0.1
<b>Total Group Delay, typical, ns</b>	40	32	3
<b>Return Loss, typical, dB</b>	23	22	24
<b>Isolation, typical, dB</b>	55	50	65
<b>Input Power, RMS, maximum, W</b>	200	200	200
<b>Input Power, PEP, maximum, W</b>	2000	2000	2000
<b>3rd Order PIM, minimum, dBc</b>	-161	-161	-161
<b>3rd Order PIM Test Method</b>	2 x 20 W CW tones	2 x 20 W CW tones	2 x 20 W CW tones

## Block Diagram



## Logic Table

Combining Mode Operation (Ground Based)				
RF Ports Input Voltage				
700 MHz	850 MHz	1695-2360 MHz	COMMON	DC/AISG Path Selection
$7 \leq V \leq 30$	<7	<7	<7	700 MHz to COMMON "ON"
<7	$7 \leq V \leq 30$	<7	<7	850 MHz to COMMON "ON"
<7	<7	$7 \leq V \leq 30$	<7	1695-2360MHz to COMMON "ON"
Any 2 or more ports active $7 \leq V \leq 30$			<7	Path selection will follow below priority: 1695-2360MHz(1), 700MHz (2), 850MHz (3)

Splitting Mode Operation (Tower Top)				
RF Ports Impedance DC (Load sensing)				
700 MHz	850 MHz	1695-2360 MHz	COMMON	DC/AISG Path Selection
open/load	short	short	$7 \leq V \leq 30$	COMMON to 700 MHz "ON"
short	open/load	short	$7 \leq V \leq 30$	COMMON to 850 MHz "ON"
short	short	open/load	$7 \leq V \leq 30$	COMMON to 1695-2360MHz "ON"
Any 2 or more ports open/load impedance			$7 \leq V \leq 30$	DC/AISG will be routed to ALL ports with open/load impedance

## 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>	0.5 kg   1.102 lb
<b>Volume</b>	2.7 L
<b>Weight, without mounting hardware</b>	3.5 kg   7.716 lb

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

