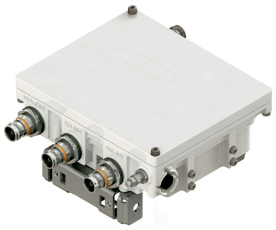
CBC7823-DS-43 | E14F60P03



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

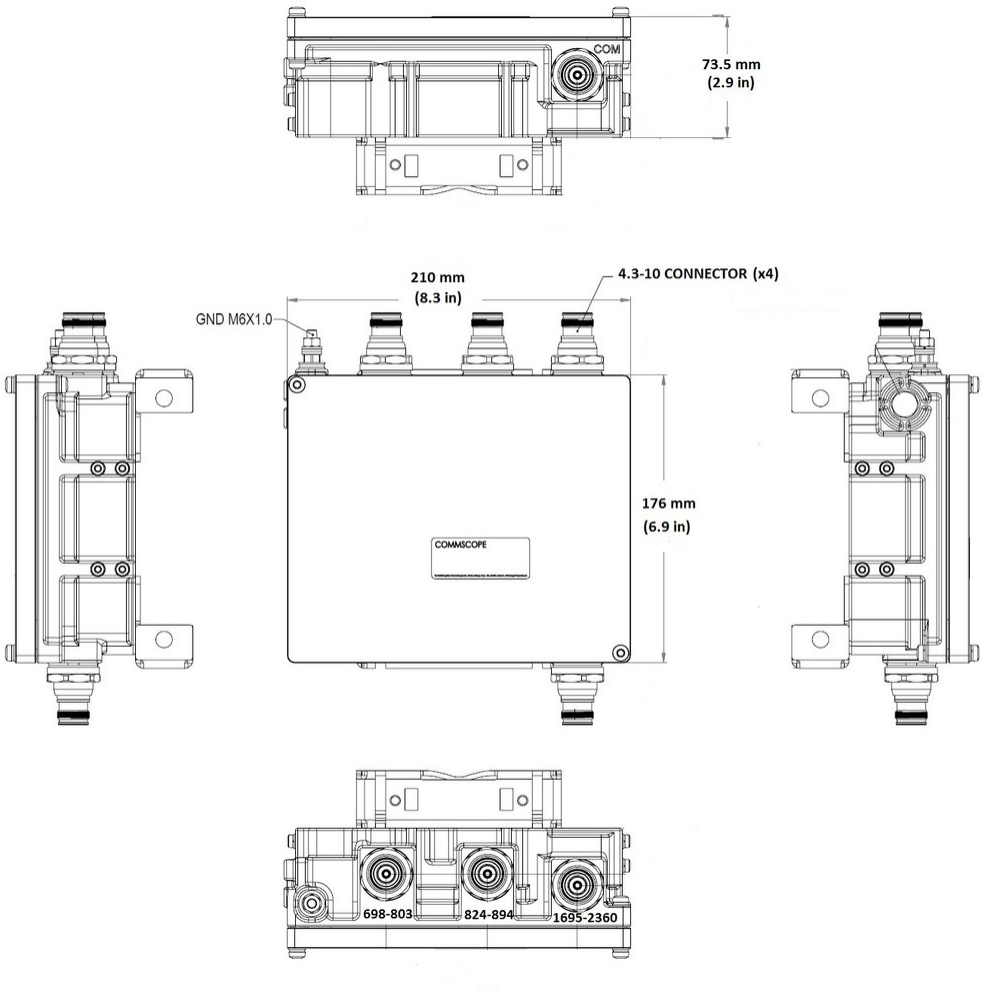
General Specifications

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

Outline Drawing



Electrical Specifications

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

Electrical Specifications, Common Port

Composite Power, RMS	250 W

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method	Auto sensing
dc/AISG Pass-through Path	See logic table

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

Electrical Specifications, AISG

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

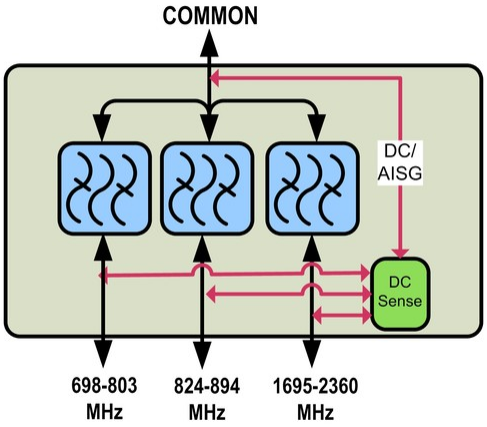
Electrical Specifications

Sub-module	**1**	**1**	**1**
Branch	1	2	3
Port Designation	698-803	824-894	1695-2360
License Band	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

Frequency Range, MHz	**698–803**	**824–894**	**1695–2360**
Insertion Loss, typical, dB	0.15	0.2	0.1
Total Group Delay, typical, ns	40	32	3
Return Loss, typical, dB	23	22	24
Isolation, typical, dB	55	50	65
Input Power, RMS, maximum, W	200	200	200
Input Power, PEP, maximum, W	2000	2000	2000
3rd Order PIM, minimum, dBc	-161	-161	-161
3rd Order PIM Test Method	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 ≤ V ≤ 30	<7	<7	<7	700 MHz to COMMON "ON"
<7	7 ≤ V ≤ 30	<7	<7	850 MHz to COMMON "ON"
<7	<7	7 ≤ V ≤ 30	<7	1695-2360MHz to COMMON"ON"
Any 2 or more ports active 7 ≤ V ≤ 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 ≤ V ≤ 30	COMMON to 700 MHz "ON"
short	open/load	short	7 ≤ V ≤ 30	COMMON to 850 MHz "ON"
short	short	open/load	7 ≤ V ≤ 30	COMMON to 1695-2360MHz "ON"
Any 2 or more ports open/load impedance			7 ≤ V ≤ 30	DC/AISG will be routed to ALL ports with open/load impedance

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

Included	Mounting hardware
Mounting Hardware Weight	0.5 kg | 1.102 lb
Volume	2.7 L
Weight, without mounting hardware	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