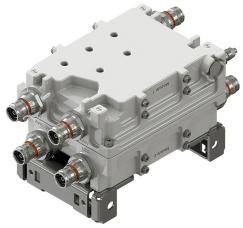
CBC1923T-DS-43 | E14F05P33



Twin Diplexer PCS/AWS+WCS, 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	Diplexer

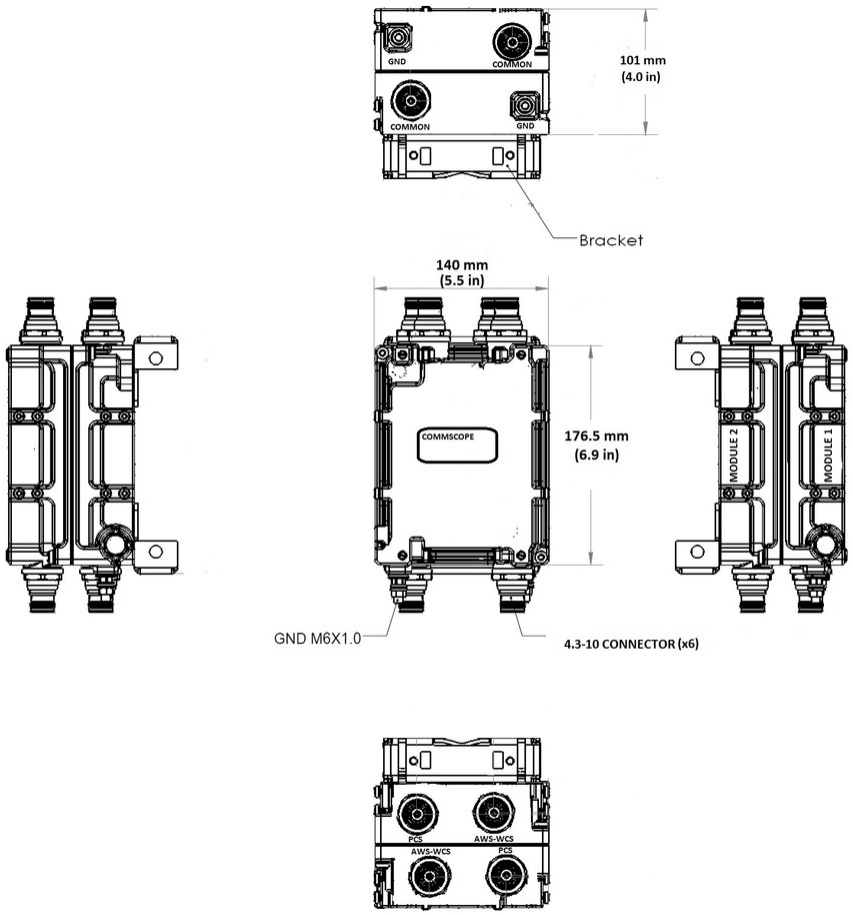
General Specifications

Product Family	CBC1923
Color	Gray
Common Port Label	Common
Modularity	2-Twin
RF Connector Interface	4.3-10 Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	176.5 mm | 6.949 in
Width	140 mm | 5.512 in
Depth	101 mm | 3.976 in
Ground Screw Diameter	6 mm | 0.236 in

Outline Drawing



Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	AWS 1700 | PCS 1900 | TDD 1900 | 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	10 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

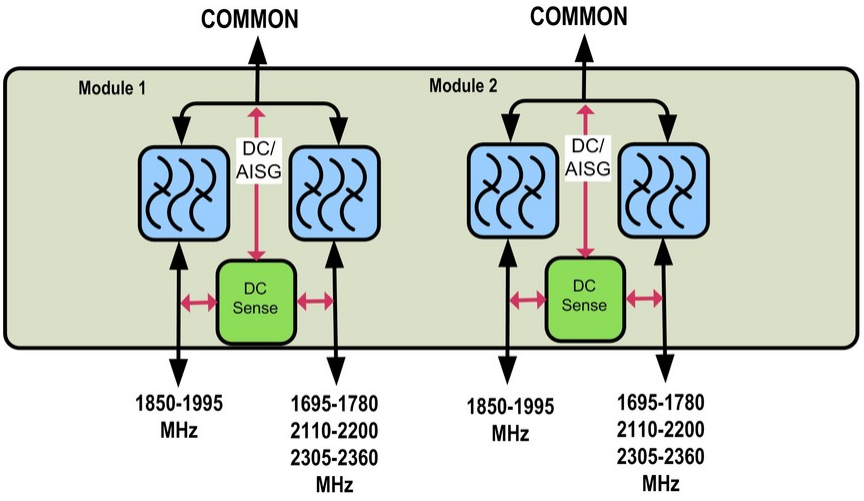
Electrical Specifications

Sub-module	**1 | 2**	**1 | 2**
Branch	1	2
Port Designation	PCS	AWS-WCS
License Band	PCS 1900, Band Pass	AWS 1700, Band Pass WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	**1850-1995**	**1695–1780** **2110–2200** **2305–2360**
Insertion Loss, typical, dB	0.2	0.2
Total Group Delay, typical, ns	13	12
Return Loss, typical, dB	22	22
Isolation, typical, dB	58	53
Input Power, RMS, maximum, W	200	200
Input Power, PEP, maximum, W	2000	2000
3rd Order PIM, minimum, dBc	-161	
3rd Order PIM Test Method	2 x 20 W CW tones	
Higher Order PIM, minimum, dBc		-161
Higher Order PIM Test Method		2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)			
RF Ports Input DC Voltage			
PCS	AWS/WCS	COMMON	DC/AISG Path Selection
7 ≤ V ≤ 30	<7	<7	PCS to COMMON "ON"
<7	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"
7 ≤ V ≤ 30	7 ≤ V ≤ 30	<7	AWS/WCS to COMMON "ON"

Splitting Mode Operation (Tower Top)			
RF Ports Impedance DC (Load sensing)			
PCS	AWS/WCS	COMMON	DC/AISG Path Selection
open/load	short	7 ≤ V ≤ 30	COMMON to PCS "ON"
short	open/load	7 ≤ V ≤ 30	COMMON to AWS/WCS "ON"
open/load	open/load	7 ≤ V ≤ 30	ALL ports ON
short	short	7 ≤ V ≤ 30	ALL ports OFF

Material Specifications

Finish Painted

Mechanical Specifications

Wind Loading @ Velocity, frontal 33.0 N @ 150 km/h (7.4 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral 13.0 N @ 150 km/h (2.9 lbf @ 150 km/h)

Environmental Specifications

Operating Temperature -40 °C to +65 °C (-40 °F to +149 °F)

Relative Humidity Up to 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 2.5 L

Weight, without mounting hardware 3.8 kg | 8.378 lb