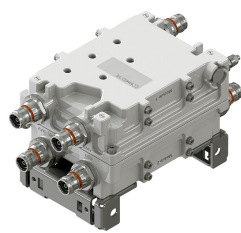


# CBC1923T-DS-43 | E14F05P33



## 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

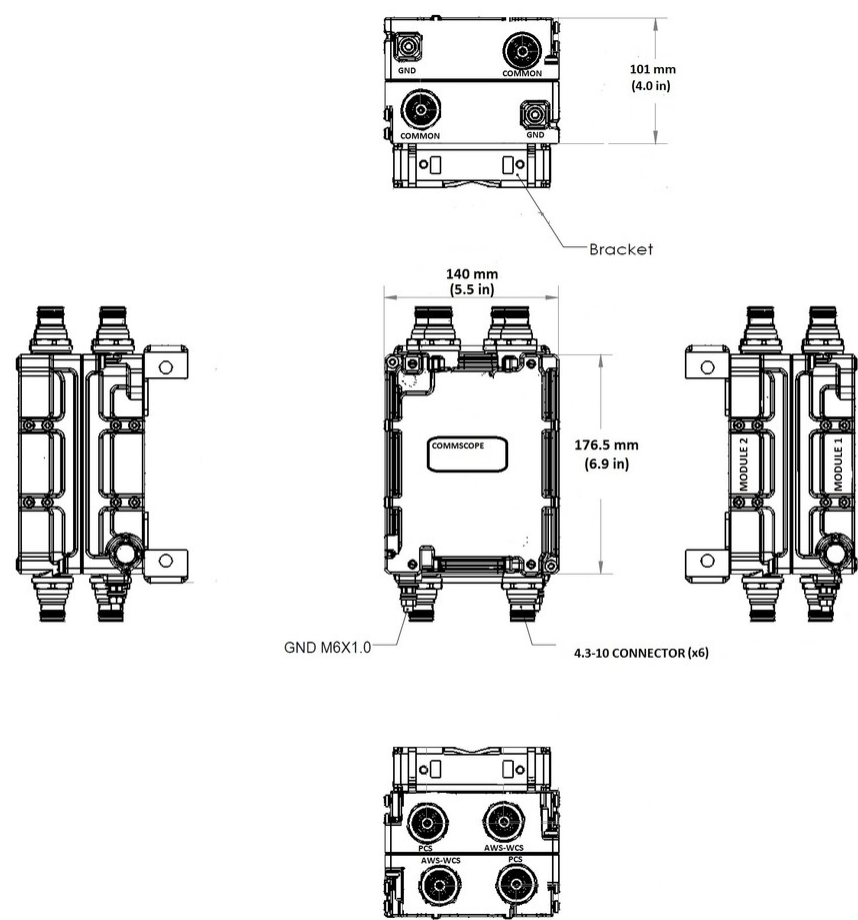
**Height** 176.5 mm | 6.949 in

**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
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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

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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

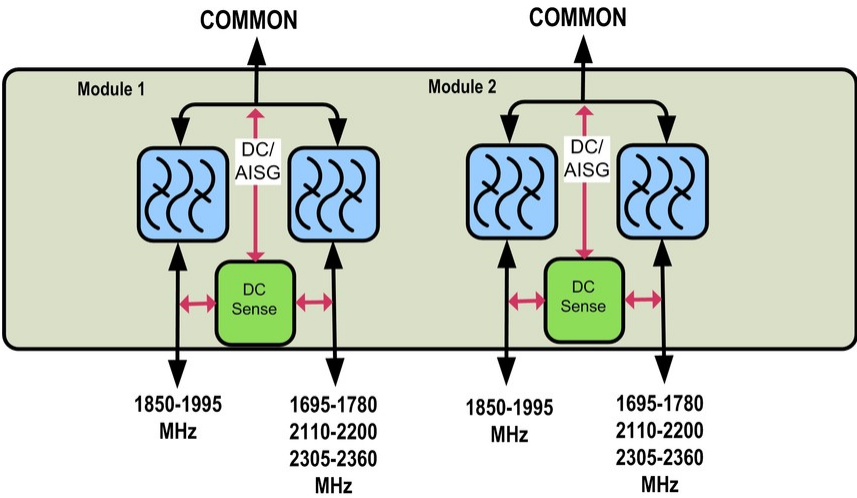
## Electrical Specifications

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
$7 \leq V \leq 30$	$<7$	$<7$	PCS to COMMON "ON"
$<7$	$7 \leq V \leq 30$	$<7$	AWS/WCS to COMMON "ON"
$7 \leq V \leq 30$	$7 \leq V \leq 30$	$<7$	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	$7 \leq V \leq 30$	COMMON to PCS "ON"
short	open/load	$7 \leq V \leq 30$	COMMON to AWS/WCS "ON"
open/load	open/load	$7 \leq V \leq 30$	ALL ports ON
short	short	$7 \leq V \leq 30$	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