CBC192123-DS | E11F33P07

Triplexer, PCS/AWS/WCS, DC Sense

- BTS-to-feeder and feeder-to-antenna application
- Automatic dc switching with dc sense
- Convertible mounting brackets

OBSOLETE

This product was discontinued on: May 31, 2019

Replaced By:

CTX192126-DS-43 E14F60P08	Triplexer, PCS/AWS/WCS-BRS, DC Sense

Product Classification

Product Type	Triplexer

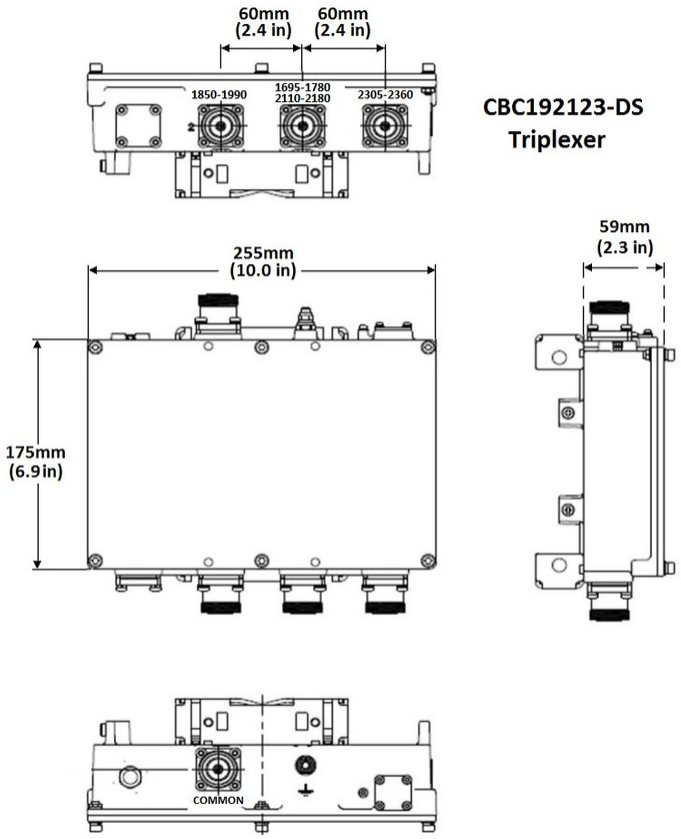
General Specifications

Product Family	CBC192123
Color	Gray
Common Port Label	COMMON
Modularity	1-Single
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	175 mm | 6.89 in
Width	255 mm | 10.039 in
Depth	59 mm | 2.323 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 | PCS 1900 | TDD 1900 | TDD 2000 | WCS 2300

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method	Auto sensing
dc/AISG Pass-through Path	See logic table
Lightning Surge Current	5 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	15 mA @ 12 V | 15 mA @ 24 V

Voltage	7–30 Vdc

Electrical Specifications, AISG

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

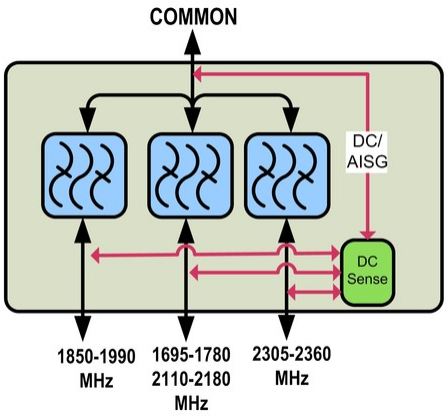
Electrical Specifications

Sub-module	**1**	**1**	**1**
Branch	1	2	3
Port Designation	AWS	PCS	WCS
License Band	AWS 1700, Band Pass	PCS 1900, Band Pass	WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	**1695–1780 2110–2180**	**1850–1990**	**2305–2360**
Insertion Loss, typical, dB	0.3	0.3	0.3
Total Group Delay, maximum, ns	25	30	25
Total Group Delay, typical, ns	19	18	19
Return Loss, typical, dB	23	23	23
Isolation, typical, dB	53	53	53
Input Power, RMS, maximum, W	200	200	200
Input Power, PEP, maximum, W	2000	2000	2000
3rd Order PIM, typical, dBc	-155	-155	
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones	
Higher Order PIM, typical, dBc			-155
Higher Order PIM Test Method			2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)				
RF Ports Input Voltage				
1850 to 1990 MHz	1695 to 1780 MHz 2110 to 2180 MHz	2305 to 2360 MHz	COMMON	DC/AISG Path Selection
7 ≤ V ≤ 30	<7	<7	<7	**1850 to 1990 MHz to COMMON "ON"** 1695 to 2180 MHz "OFF" 2305 to 2360 MHz "OFF"
<7	**7 ≤ V ≤ 30**	<7	<7	1850 to 1990 MHz "OFF" **1695 to 2180 MHz to COMMON "ON"** 2305 to 2360 MHz "OFF"
<7	<7	**7 ≤ V ≤ 30**	<7	1850 to 1990798 MHz "OFF" 1695 to 1710 MHz "OFF" 2110 to 2180 MHz **2305 to 2360 MHz to COMMON"ON"**
V<7 or V>30	V<7 or V>30	V<7 or V>30	V<7 or V>30	ALL ports OFF
Any 2 or more ports 7 ≤ V ≤ 30				ALL ports OFF

Splitting Mode Operation (Tower Top)				
RF Ports Input Voltage				
1850 to 1990 MHz	1695 to 1780 MHz 2110 to 2180 MHz	2305-2360 MHz	COMMON	DC/AISG Path Selection
<7	<7	<7	7 ≤ V ≤ 30	**ALL PORTS ON***
7 ≤ V ≤ 30	<7	<7	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)
<7	7 ≤ V ≤ 30	<7	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)
<7	<7	7 ≤ V ≤ 30	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)

*** DC/AISG will pass to all 3 Band RF Ports, External DC blocks required for proper installation**

Environmental Specifications

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

Packaging and Weights

Included	Mounting hardware
Volume	2.7 L
Weight, net	5 kg | 11.023 lb