

### Quadplexer, 555-894/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:

CQX6192123-DS-43 E12F23P03

Quadplexer, 617-894/PCS/AWS/WCS, DC Sense, 4.3-10

### Product Classification

Product Type Quadplexer

General Specifications

Product Family CBC6192123

**Color** Gray

Common Port LabelCommonModularity1-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

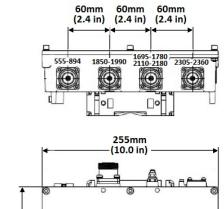
**Depth** 59 mm | 2.323 in

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

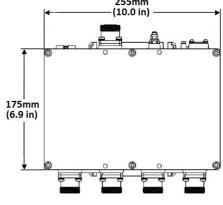
**Mounting Pipe Diameter Range** 40–160 mm

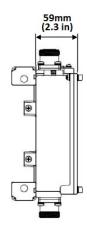
### Outline Drawing

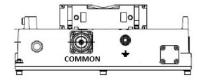




### CBC6192123-DS Quadplexer







### **Electrical Specifications**

**Impedance** 50 ohm

**License Band, Band Pass**AWS 1700 | CEL 850 | LMR 750 | PCS 1900 | USA 700 | USA 750 | WCS

2300

### Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through MethodAuto sensingdc/AISG Pass-through PathSee logic table

**Lightning Surge Current** 10 kA

**Lightning Surge Current Waveform** 8/20 waveform

Operating Current at Voltage 15 mA @ 12 V | 15 mA @ 24 V

Voltage 7–30 Vdc

**COMMSCOPE®** 

### Electrical Specifications, AISG

**AISG Carrier** 2176 KHz ± 100 ppm

1 dB Insertion Loss, maximum 15 dB Return Loss, minimum

## **Electrical Specifications**

Sub-module	1	1	1	1
Branch	1	2	3	4
Port Designation	555-894	AWS	PCS	WCS

**License Band** CEL 850, Band Pass LMR 750, Band Pass PCS 1900, Band Pass WCS 2300, Band Pass

USA 700, Band Pass

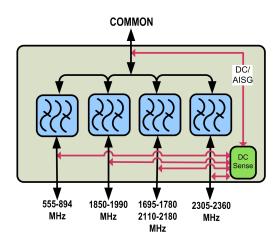
USA 700, Band Pass USA 750, Band Pass

USA 750, Band Pass USA 600, Band Pass

## Electrical Specifications, Band Pass

Frequency Range, MHz	555-894	1695-1780 2110-2180	1850-1990	2305-2360
Insertion Loss, typical, dB	0.06	0.3	0.3	0.2
Total Group Delay, maximum, ns	5	25	30	25
Total Group Delay, typical, ns		20	17	20
Return Loss, typical, dB	22	22	22	22
Isolation, minimum, dB	50	50	50	50
Input Power, RMS, maximum, W	200	200	200	200
Input Power, PEP, maximum, W	2000	2000	2000	2000
3rd Order PIM, typical, dBc	-155	-155	-155	-155
3rd Order PIM Test Method	2 x 20 W CW tones	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 (Bottom)					
RF Ports Input Voltage					
555-894 MHz	1850-1990 MHz	1695-2180 MHz	2305-2360 MHz COMMON		DC/AISG Path Selection
			-7	<7	555-894 MHz COMMON "ON"
<b>7</b> ≤ <b>V</b> ≤ <b>30</b> <7	.7	<7 <7			1850-1990 MHz "OFF"
	</td <td><!--</td--><td><!--</td--><td>1695-2180 MHz "OFF"</td></td></td>		</td <td><!--</td--><td>1695-2180 MHz "OFF"</td></td>	</td <td>1695-2180 MHz "OFF"</td>	1695-2180 MHz "OFF"
				2305-2360 MHz "OFF"	
<7 7≤V≤30	<7 <7	.7	<7	555-894 MHz "OFF"	
				1850-1990MHz to COMMON "ON"	
		</td <td>1695-2180MHz "OFF"</td>		1695-2180MHz "OFF"	
					2305-2360 MHz "OFF"
		7≤V≤30	<7	-7	555-894 MHz "OFF"
<7 <7	.7				824-894 MHz "OFF"
	/ \$ V \$ 30 </td <td><!--</td--><td rowspan="2">&lt;7</td><td>1695-2180 MHz to COMMON"ON"</td></td>	</td <td rowspan="2">&lt;7</td> <td>1695-2180 MHz to COMMON"ON"</td>	<7	1695-2180 MHz to COMMON"ON"	
				2305-2360 MHz "OFF"	
<7 <7	<7	7 ≤ V ≤ 30	<7	555-894 MHz "OFF"	
				1850-1990MHz "OFF"	
				1695-2180 MHz "OFF"	
					2305-2360 MHz to COMMON "ON"
V<7 or V>30	V<7 or V>30	V<7 or V>30	V<7 or V>30	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					
555-894 MHz	1850-1990 MHz	1695-2180 MHz	2305-2360 MHz	COMMON	DC/AISG Path Selection
<7	<7	<7	<7	7 ≤ V ≤ 30	ALL PORTS ON*
7 ≤ V ≤ 30	<7	<7	<7	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)
<7	7 ≤ V ≤ 30	<7	<7	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)
<7	<7	7 ≤ V ≤ 30	<7	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)
<7	<7	<7	7 ≤ V ≤ 30	7 ≤ V ≤ 30	ALL ports OFF (Verified at Start Up)

<sup>\*</sup> DC/AISG will pass to all 4 Band RF Ports, External DC blocks required for proper installation

### **Environmental Specifications**

**Operating Temperature** 

-40 °C to +65 °C (-40 °F to +149 °F)

**COMMSCOPE®** 

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** 0.3 kg | 0.661 lb

Weight, net  $5 \text{ kg} \mid 11.023 \text{ lb}$ 

Weight, without mounting hardware 4.7 kg | 10.362 lb

