

CBC782123T-DS | E11F23P09



Twin Quadplexer, 700/850/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:

CQX782123T-DS-43
E14F15P26

Twin Quadplexer, 700/850/PCS-AWS/WCS,DC Sense, 4.3-10

Product Classification

Product Type Quadplexer

General Specifications

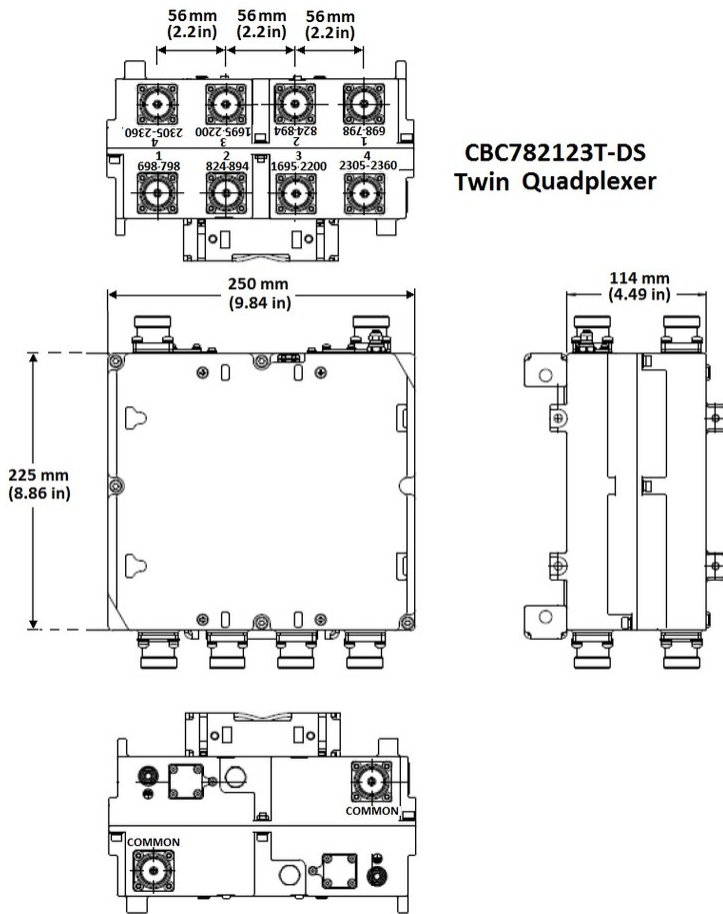
Product Family	CBC782123
Color	Gray
Common Port Label	COMMON
Modularity	2-Twin
Mounting	Pole Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	225 mm 8.858 in
Width	250 mm 9.843 in
Depth	114 mm 4.488 in
Ground Screw Diameter	6 mm 0.236 in
Mounting Pipe Diameter Range	40–160 mm

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Outline Drawing



**CBC782123T-DS
Twin 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 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

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Voltage 7–30 Vdc

Electrical Specifications, AISG

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

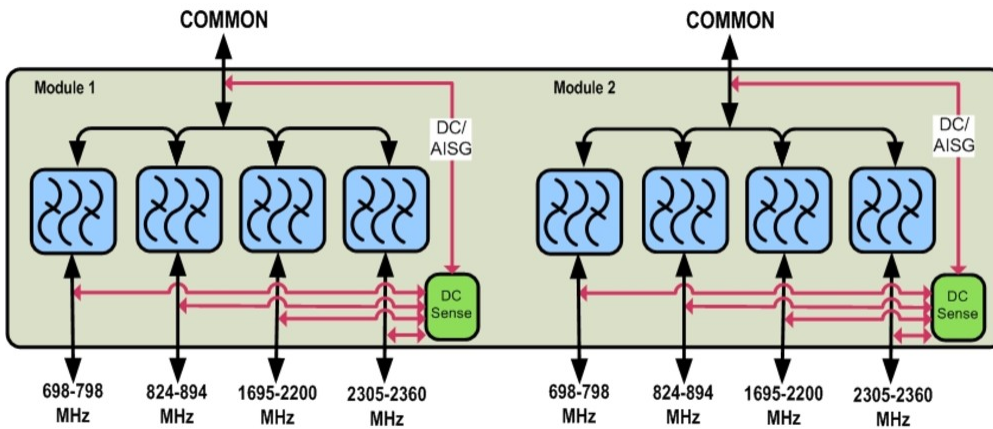
Electrical Specifications

Sub-module	1	1	1	1
Branch	1	2	3	4
Port Designation	698–798	824–894	AWS-PCS	WCS
License Band	LMR 750, Band Pass USA 700, Band Pass USA 750, Band Pass	CEL 850, Band Pass	AWS 1700, Band Pass PCS 1900, Band Pass	WCS 2300, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	698–798	824–894	1695–1780 1850–1990 2110–2200	2305–2360
Insertion Loss, typical, dB	0.35	0.35	0.3	0.3
Total Group Delay, maximum, ns	40	40	20	25
Total Group Delay, typical, ns	25	27	11	17
Return Loss, minimum, dB	20	20	20	20
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	
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones	1 x 20 W AWS CW tone 1 x 20 W PCS CW tone 2 x 20 W CW tones	
Higher Order PIM, minimum, dBc				-155
Higher Order PIM Test Method				2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Bottom)						
RF Ports Input Voltage					COMMON	DC/AISG Path Selection
698-798 MHz	824-894 MHz	1695-2200 MHz	2305-2360 MHz	COMMON		
$7 \leq V \leq 30$	<7	<7	<7	<7	698 - 798 MHz COMMON "ON" 824 - 894 MHz "OFF" 1695 - 2200 MHz "OFF" 2305 - 2360 MHz "OFF"	
<7	$7 \leq V \leq 30$	<7	<7	<7	698 - 798 MHz "OFF" 824 - 894 MHz to COMMON "ON" 1695 - 2200 MHz "OFF" 2305 - 2360 MHz "OFF"	
<7	<7	$7 \leq V \leq 30$	<7	<7	698 - 798 MHz "OFF" 824 - 894 MHz "OFF" 1695 - 2200 MHz to COMMON "ON" 2305 - 2360 MHz "OFF"	
<7	<7	<7	$7 \leq V \leq 30$	<7	698 - 798 MHz "OFF" 824 - 894 MHz "OFF" 1695 - 2200 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 $7 \leq V \leq 30$					ALL ports OFF	

Splitting Mode Operation (Tower Top)						
RF Ports Input Voltage					COMMON	DC/AISG Path Selection
698-798 MHz	824-894 MHz	1695-2200 MHz	2305-2360 MHz	COMMON		
<7	<7	<7	<7	$7 \leq V \leq 30$	ALL PORTS ON*	
$7 \leq V \leq 30$	<7	<7	<7	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)	
<7	$7 \leq V \leq 30$	<7	<7	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)	
<7	<7	$7 \leq V \leq 30$	<7	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)	
<7	<7	<7	$7 \leq V \leq 30$	$7 \leq V \leq 30$	ALL ports OFF (Verified at Start Up)	

* 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)
Corrosion Test Method	IEC 60068-2-11, 30 days
Ingress Protection Test Method	IEC 60529:2001, IP67

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Packaging and Weights

Included	Mounting hardware
Weight, net	9.2 kg 20.283 lb