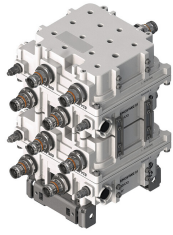


CBC78T-DS-43-2X | E14F05P50



4 Pack Diplexer 700MHz/850MHz, DC sense, 4.3-10 Connectors

- BTS-to-feeder and feeder-to-antenna application
- New 4.3-10 connectors for improved PIM performance and size reduction
- Convertible mounting brackets

Product Classification

Product Type Diplexer

General Specifications

Product Family CBC78

Color Gray

Common Port Label COMM

Modularity 4-Quad

Mounting Pole | Wall

Mounting Pipe Hardware Band clamps (2)

RF Connector Interface 4.3-10 Female

RF Connector Interface Body Style Long neck

Dimensions

Height 162 mm | 6.378 in

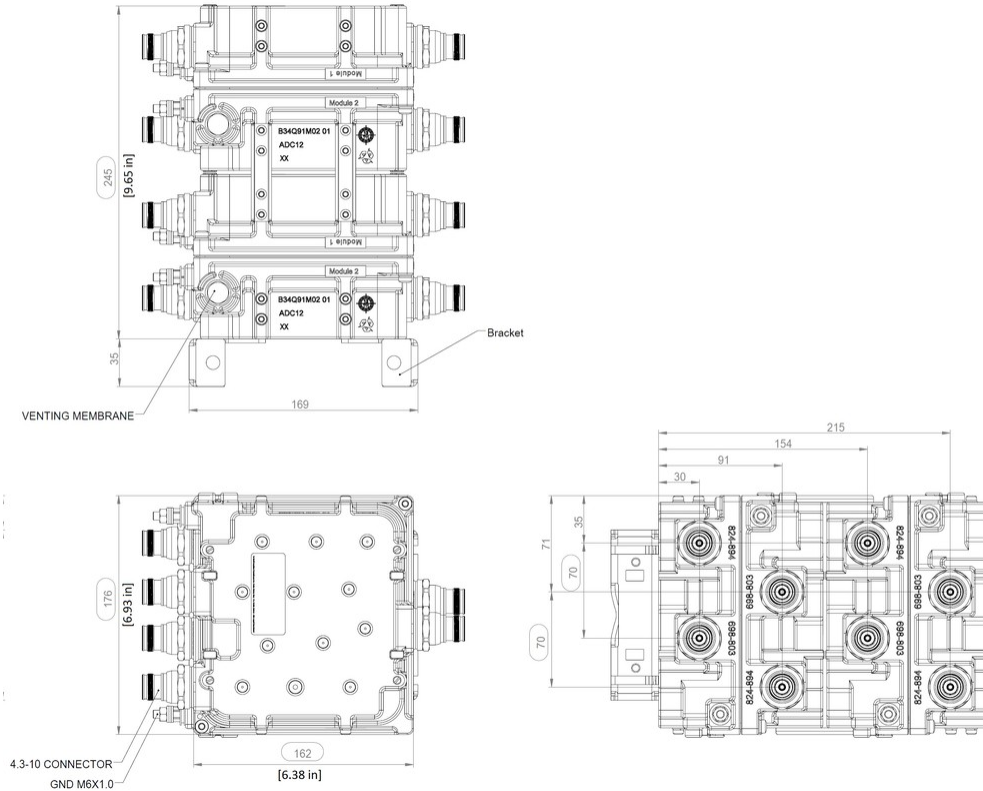
Width 176 mm | 6.929 in

Depth 245 mm | 9.646 in

Ground Screw Diameter 6 mm | 0.236 in

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Outline Drawing



Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	CEL 850 USA 700 USA 750

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

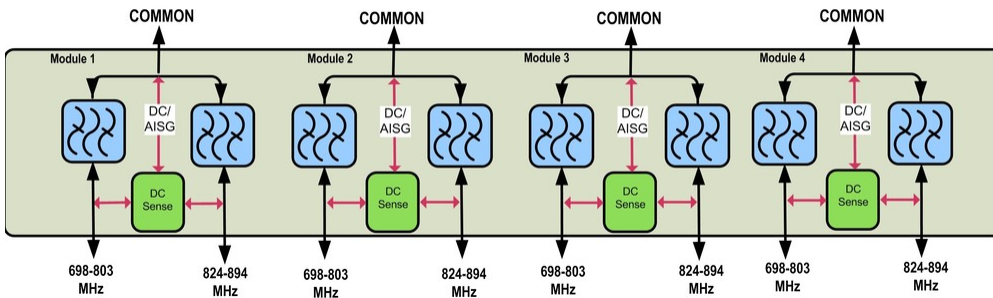
Electrical Specifications

Sub-module	1 2 3 4	1 2 3 4	1 2 3 4
Branch	1	1	2
Port Designation		698-803	824-894
License Band	USA 700, Band Pass	USA 700, Band Pass	CEL 850, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	698–798	698–803	824–894
Insertion Loss, typical, dB	0.2	0.3	0.2
Total Group Delay, maximum, ns		45	35
Return Loss, minimum, dB		22	22
Return Loss, typical, dB		24	24
Isolation, minimum, dB	50	35	50
Input Power, RMS, maximum, W		200	200
Input Power, PEP, maximum, W		2000	2000
3rd Order PIM, minimum, dBc		-161	-161
3rd Order PIM Test Method		2 x 20 W CW tones	2 x 20 W CW tones

Block Diagram



Logic Table

Combining Mode Operation (Ground Based)			
RF Ports Input Voltage			
700 MHz	800 MHz	COMMON	DC/AISG Path Selection
$7 \leq V \leq 30$	$V < 7$	$V < 7$	700 MHz to COMMON "ON" 800 MHz Port "OFF"
$V < 7$	$7 \leq V \leq 30$	$V < 7$	800 MHz to COMMON "ON" 700 MHz "OFF"
$7 \leq V \leq 30$	$7 \leq V \leq 30$	$V < 7$	700 MHz to COMMON "ON" 800 MHz "OFF"
$V < 7$	$V < 7$	$V < 7$	ALL ports OFF

Splitting Mode Operation (Tower Top)			
RF Ports Input Voltage			
700 MHz	800 MHz	COMMON	DC/AISG Path Selection
$V < 7$	$V < 7$	$7 \leq V \leq 30$	700 MHz to COMMON "ON" 800 MHz "OFF"

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	5%–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
Weight, without mounting hardware	9.4 kg 20.723 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

