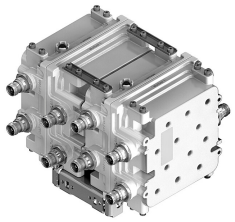
CBC6AE7LQ-DS-43 | E14F05P68



Quad Diplexer 600AE/700LABC, 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

OBSOLETE

This product was discontinued on: March 30, 2024

Replaced By:

E14F06P51	Quad Diplexer 617-698/703-960 MHz, 4.3-10 connectors

Product Classification

Product Type	Diplexer

General Specifications

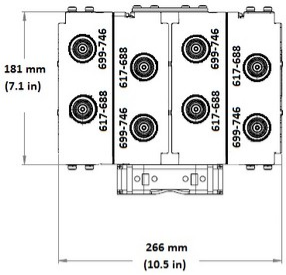
Color	Gray
Common Port Label	COMM
Modularity	4-Quad
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	4.3-10 Female
RF Connector Interface Body Style	Long neck

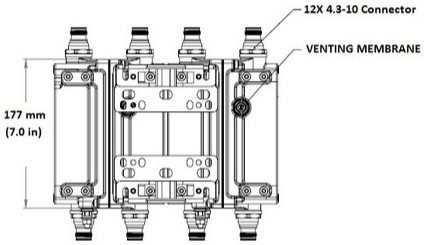
Dimensions

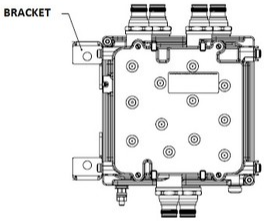
Height	181 mm | 7.126 in
Width	266 mm | 10.472 in
Depth	177 mm | 6.969 in
Ground Screw Diameter	6 mm | 0.236 in

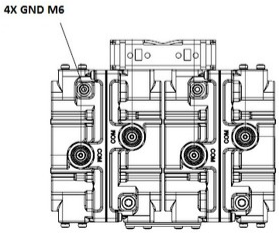
CBC6AE7LQ-DS-43 | E14F05P68

Outline Drawing









Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	CEL 850 | USA 600 | USA 700 | USA 750

Electrical Specifications, Common Port

Composite Power, PEP	250 W

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

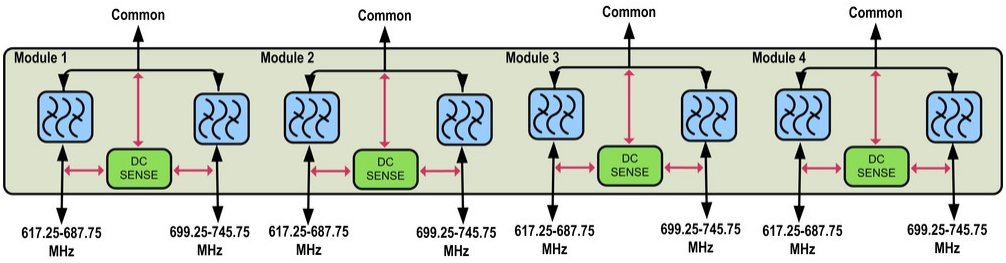
Electrical Specifications

Sub-module	**1 | 2 | 3 | 4**	**1 | 2 | 3 | 4**
Branch	1	2
Port Designation	617-688	699-746
License Band	USA 600, Band Pass	USA 700, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	**617.25–687.75**	**699.25–745.75**
Insertion Loss, maximum, dB	0.45	0.45
Insertion Loss, typical, dB	0.2	0.2
Total Group Delay, maximum, ns	75	70
Return Loss, typical, dB	22	22
Isolation, typical, dB	53	48
Input Power, RMS, maximum, W	200	200
Input Power, PEP, maximum, W	2000	2000
3rd Order PIM, typical, 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			
617.25 to 687.75 MHz	699.25 to 745.75 MHz	COMMON	DC/AISG Path Selection
7 ≤ V ≤ 30	<7	<7	617.25 to 687.75 MHz to COMMON "ON"
<7	7 ≤ V ≤ 30	<7	699.25 to 745.75 MHz to COMMON "ON"
7 ≤ V ≤ 30	7 ≤ V ≤ 30	<7	617.25 to 687.75 MHz to COMMON "ON"

Splitting Mode Operation (Tower Top)			
RF Ports Impedance DC (Load sensing)			
617.25 to 687.75 MHz	699.25 to 745.75 MHz	COMMON	DC/AISG Path Selection
open/load	short	7 ≤ V ≤ 30	COMMON to 617.25-687.75 "ON"
short	open/load	7 ≤ V ≤ 30	COMMON to 699.25-745.75 "ON"
open/load	open/load	7 ≤ V ≤ 30	ALL ports ON
short	short	7 ≤ V ≤ 30	ALL ports 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	10.7 kg | 23.589 lb

Regulatory Compliance/Certifications

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