

E14F10P12



Twin Quadplexer 700-800//900//1800//2100-2600 MHz, (DC Smart Bypass) with 4.3-10 connectors

- Industry leading PIM performance
- Designed for network modernization application, introduction of LTE700 and LTE800 on existing site
- Twin configuration
- Suitable for feeders cables reduction
- New 4.3-10 connectors for improved PIM performance and size reduction

Product Classification

Product Type Quadplexer

General Specifications

Product Family CBC791826

Color Gray

Common Port Label COM

Modularity 2-Twin

Mounting Pole | Wall

Mounting Pipe Hardware Band clamps (2)

RF Connector Interface 4.3-10 Female

RF Connector Interface Body Style Medium neck

Dimensions

Height 263 mm | 10.354 in

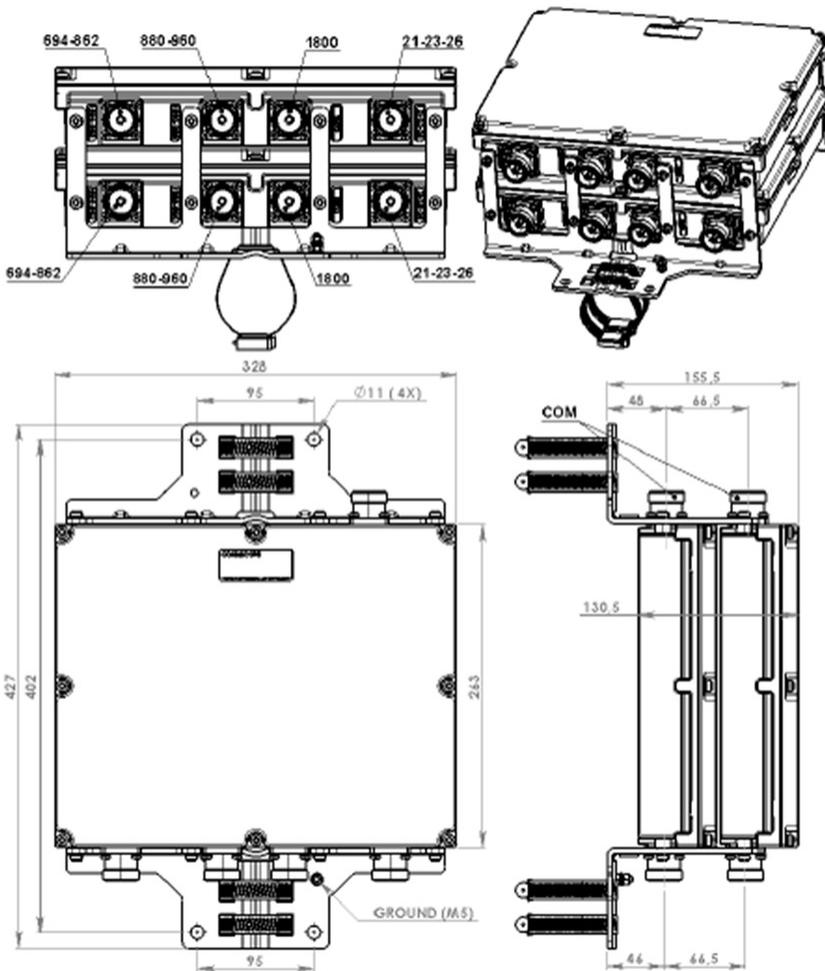
Width 328 mm | 12.913 in

Depth 131 mm | 5.157 in

Mounting Pipe Diameter Range 42.6–122 mm

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Outline Drawing



Electrical Specifications

Impedance	50 ohm
License Band, Band Pass	APT 700 CEL 900 DCS 1800 EDD 800 IMT 2100 IMT 2600

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method	Auto sensing
dc/AISG Pass-through Path	See logic table
dc/AISG Pass-through, combiner	dc Sensing
Lightning Surge Current	5 kA
Lightning Surge Current Waveform	8/20 waveform

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Electrical Specifications, AISG

AISG Carrier	2176 KHz ± 100 ppm
Insertion Loss, maximum	0.5 dB
Return Loss, minimum	10 dB

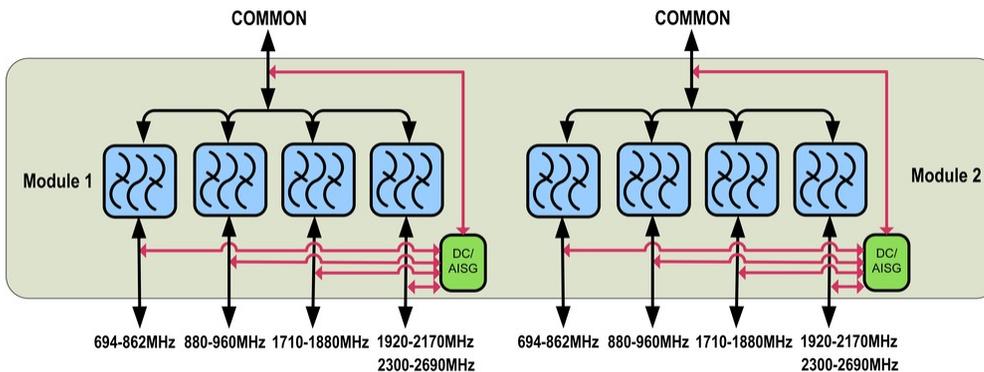
Electrical Specifications

Sub-module	1 2	1 2	1 2	1 2
Branch	1	2	3	4
Port Designation	DD2-800	900	1800	21-23-26
License Band	APT 700, Band Pass EDD 800, Band Pass	CEL 900, Band Pass	DCS 1800, Band Pass	IMT 2100, Band Pass IMT 2600, Band Pass

Electrical Specifications, Band Pass

Frequency Range, MHz	694-862	880-960	1710-1880	1920-2170 2300-2690
Insertion Loss, typical, dB	0.4	0.4	0.33	0.33
Return Loss, minimum, dB	18	18	18	18
Return Loss, typical, dB	22	22	22	22
Isolation, minimum, dB	50	50	50	50
Input Power, RMS, maximum, W	300	300	300	300
Input Power, PEP, maximum, W	3000	3000	3000	3000
3rd Order PIM, typical, dBc	-160	-160	-160	-160
3rd Order PIM Test Method	Two +43 dBm carriers			

Block Diagram



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Logic Table

COMBINER Mode: One of four Ports (1-4) is selected to the COM port														
MODE	COM	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26	COM	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26
COMBINER Mode	Input Voltage					Selected Port					Led			
	<7V	<7V	<7V	<7V	>7V	ON	OFF	OFF	OFF	ON	off	off	off	Green
	<7V	<7V	<7V	>7V	<7V	ON	OFF	OFF	ON	OFF	off	off	Green	off
	<7V	<7V	>7V	<7V	<7V	ON	OFF	ON	OFF	OFF	off	Green	off	off
	<7V	>7V	<7V	<7V	<7V	ON	ON	OFF	OFF	OFF	Green	off	off	off
	<7V	<7V	<7V	>7V	>7V	ON	OFF	OFF	OFF	ON	off	off	Red	Green
	<7V	<7V	>7V	<7V	>7V	ON	OFF	OFF	OFF	ON	off	Red	off	Green
	<7V	<7V	>7V	>7V	<7V	ON	OFF	ON	OFF	OFF	off	Green	Red	off
	<7V	<7V	>7V	>7V	>7V	ON	OFF	OFF	OFF	ON	off	Red	Red	Green
	<7V	>7V	<7V	<7V	>7V	ON	OFF	OFF	OFF	ON	Red	off	off	Green
	<7V	>7V	<7V	>7V	<7V	ON	ON	OFF	OFF	OFF	Green	off	Red	off
	<7V	>7V	<7V	>7V	>7V	ON	ON	OFF	OFF	ON	Red	off	Red	Green
	<7V	>7V	>7V	<7V	<7V	ON	ON	OFF	OFF	OFF	Green	Red	off	off
	<7V	>7V	>7V	<7V	>7V	ON	OFF	OFF	OFF	ON	Red	Red	off	Green
<7V	>7V	>7V	>7V	<7V	ON	ON	OFF	OFF	OFF	Green	Red	Red	off	
<7V	>7V	>7V	>7V	>7V	ON	ON	OFF	OFF	OFF	Green	Red	Red	Green	

Note: LED indication is referred to normal (no alarm state)

SPLITTER Mode: COM Port is split to Ports (1-4) with valid impedance														
MODE	COM	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26	COM	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26	PORT 1 694-862	PORT 2 880-960	PORT 3 1800	PORT 4 21-23-26
SPLITTER Mode	DC Port Impedance Ports 1,2,3,4 Voltage <7V					Selected Port					Led			
	>7V	short	short	short	open/load	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Green
	>7V	short	short	open/load	short	ON	OFF	OFF	ON	OFF	OFF	OFF	Green	OFF
	>7V	short	short	open/load	open/load	ON	OFF	OFF	ON	ON	OFF	OFF	Green*	Green*
	>7V	short	open/load	short	short	ON	OFF	ON	OFF	OFF	OFF	Green	OFF	OFF
	>7V	short	open/load	short	open/load	ON	OFF	ON	OFF	ON	OFF	Green*	OFF	Green*
	>7V	short	open/load	open/load	short	ON	OFF	ON	OFF	ON	OFF	Green*	Green*	OFF
	>7V	short	open/load	open/load	open/load	ON	OFF	ON	ON	ON	OFF	Green*	Green*	Green*
	>7V	open/load	short	short	short	ON	ON	OFF	OFF	OFF	Green	OFF	OFF	OFF
	>7V	open/load	short	short	open/load	ON	ON	OFF	OFF	ON	OFF	Green*	OFF	Green*
	>7V	open/load	short	open/load	short	ON	ON	OFF	ON	OFF	Green*	OFF	Green*	OFF
	>7V	open/load	short	open/load	open/load	ON	ON	OFF	ON	ON	Green*	OFF	Green*	Green*
	>7V	open/load	open/load	short	short	ON	ON	ON	OFF	OFF	Green*	Green*	OFF	OFF
	>7V	open/load	open/load	short	short	ON	ON	ON	OFF	ON	Green*	Green*	OFF	Green*
>7V	open/load	open/load	open/load	short	ON	ON	ON	ON	OFF	Green*	Green*	Green*	OFF	
>7V	open/load	open/load	open/load	open/load	ON	ON	ON	ON	ON	Green*	Green*	Green*	Green*	
>7V	short	short	short	short	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	

*If the input voltage is from 7V to 19V, the green LEDs will be on one at a time, each for 2 seconds indicating DC voltage is available at the RF port corresponding to the LED Green lighted

Alternating LEDs is merely a mechanism to save power consumption.

Mechanical Specifications

Wind Speed, maximum 216 km/h (134 mph)

Environmental Specifications

Operating Temperature -40 °C to +65 °C (-40 °F to +149 °F)

Relative Humidity 15%–100%

Corrosion Test Method IEC 60068-2-11, 30 days

Ingress Protection Test Method IEC 60529:2001, IP67

Vibration Test Method IEC 60068-2-6

Packaging and Weights

Included Mounting hardware

E14F10P12

Volume	11.3 L
Weight, net	12 kg 26.455 lb
Weight, without mounting hardware	10.4 kg 22.928 lb