

# E14F10P12

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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

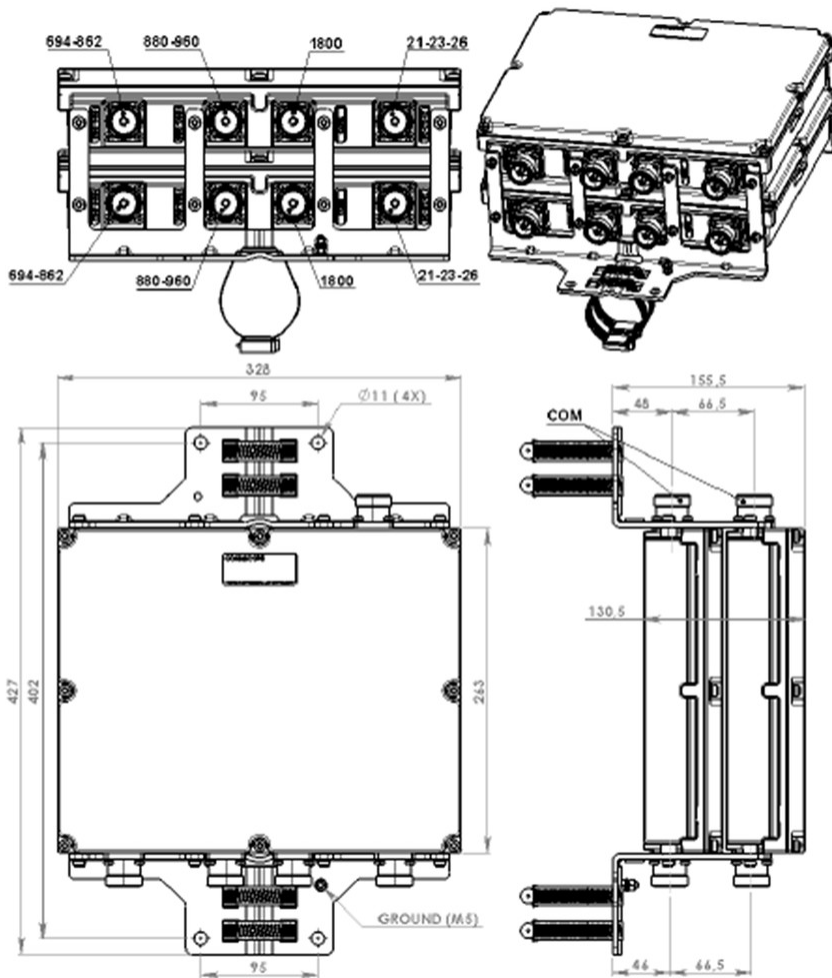
**Width** 328 mm | 12.913 in

**Depth** 131 mm | 5.157 in

**Mounting Pipe Diameter Range** 42.6–122 mm

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## Outline Drawing



## Electrical Specifications

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

## Electrical Specifications, dc Power/Alarm

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

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## Electrical Specifications, AISG

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

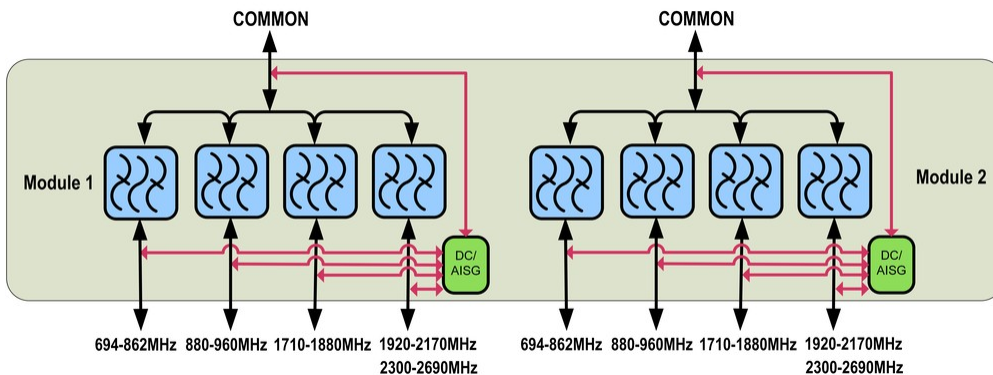
## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>	<b>1   2</b>	<b>1   2</b>	<b>1   2</b>
<b>Branch</b>	1	2	3	4
<b>Port Designation</b>	DD2-800	900	1800	21-23-26
<b>License Band</b>	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

<b>Frequency Range, MHz</b>	<b>694–862</b>	<b>880–960</b>	<b>1710–1880</b>	<b>1920–2170</b> <b>2300–2690</b>
<b>Insertion Loss, typical, dB</b>	0.4	0.4	0.33	0.33
<b>Return Loss, minimum, dB</b>	18	18	18	18
<b>Return Loss, typical, dB</b>	22	22	22	22
<b>Isolation, minimum, dB</b>	50	50	50	50
<b>Input Power, RMS, maximum, W</b>	300	300	300	300
<b>Input Power, PEP, maximum, W</b>	3000	3000	3000	3000
<b>3rd Order PIM, typical, dBc</b>	-160	-160	-160	-160
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers	Two +43 dBm carriers	Two +43 dBm carriers	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	OFF	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	OFF	OFF	OFF	ON	Red	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	OFF	Green
	>7V	short	short	open/load	short	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Green	OFF
	>7V	short	short	open/load	open/load	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Green*	Green*
	>7V	short	open/load	short	short	ON	OFF	ON	OFF	OFF	OFF	Green	OFF	OFF	OFF
	>7V	short	open/load	short	open/load	ON	OFF	ON	OFF	ON	OFF	Green*	OFF	OFF	Green*
	>7V	short	open/load	open/load	open/load	ON	OFF	ON	ON	ON	OFF	Green*	Green*	Green*	Green*
	>7V	open/load	short	short	short	ON	ON	OFF	OFF	OFF	Green	OFF	OFF	OFF	OFF
	>7V	open/load	short	short	open/load	ON	ON	OFF	OFF	ON	OFF	Green*	OFF	OFF	Green*
	>7V	open/load	short	open/load	short	ON	ON	OFF	ON	OFF	Green*	OFF	Green*	OFF	OFF
	>7V	open/load	short	open/load	open/load	ON	ON	OFF	ON	ON	Green*	OFF	Green*	Green*	Green*
	>7V	open/load	open/load	short	short	ON	ON	ON	OFF	OFF	Green*	Green*	OFF	OFF	OFF
	>7V	open/load	open/load	short	short	ON	ON	ON	ON	OFF	Green*	Green*	OFF	OFF	Green*
	>7V	open/load	open/load	open/load	short	ON	ON	ON	ON	OFF	Green*	Green*	Green*	OFF	OFF
	>7V	open/load	open/load	open/load	open/load	ON	ON	ON	ON	ON	Green*	Green*	Green*	Green*	Green*
>7V	short	short	short	short	ON	OFF	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 | 134.216 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

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<b>Volume</b>	11.3 L
<b>Weight, net</b>	12 kg   26.455 lb
<b>Weight, without mounting hardware</b>	10.4 kg   22.928 lb