

E14F15P11



Single 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
- New 4.3-10 connectors for improved PIM performance and size reduction
- Suitable for feeders cables reduction
- DC/AISG SMART bypass functionality

This product will be discontinued on: December 30, 2024

Replaced By:

E14F15P09

Single Quadplexer 700-800/900/1800/2100-2600 MHz, with 4.3-10 connectors, dc bypass on all ports

Product Classification

Product Type Quadplexer

General Specifications

Product Family CBC791826

Color Gray

Common Port Label COM

Modularity 1-Single

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 64 mm | 2.52 in

Mounting Pipe Diameter Range 42.6–122 mm

Electrical Specifications

E14F15P11

| | |
|--------------------------------|--|
| 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 |

Electrical Specifications, AISG

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

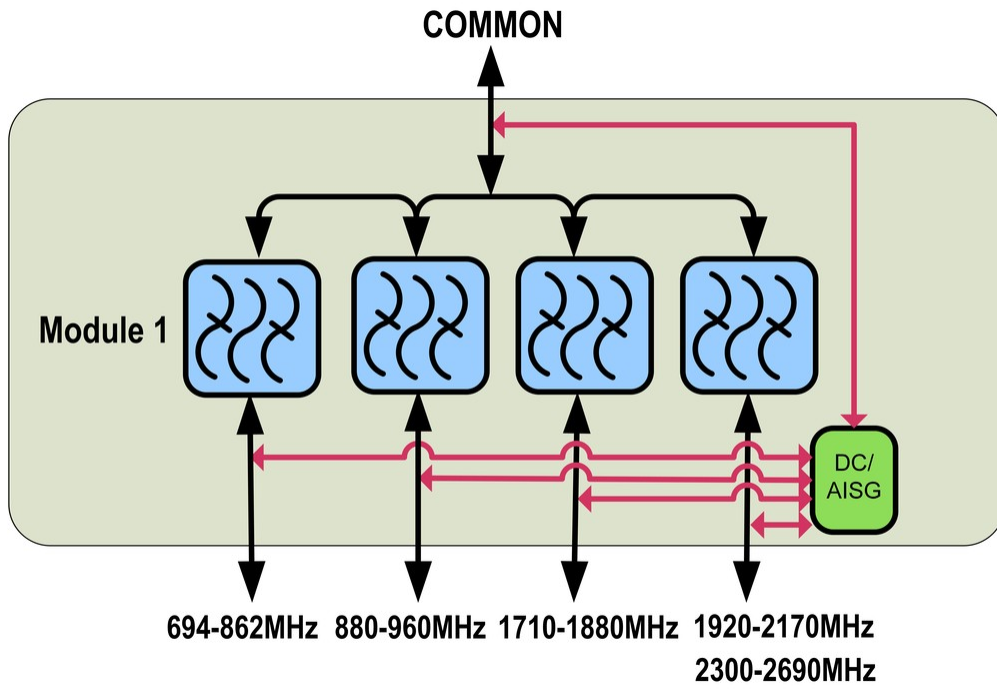
Electrical Specifications

| 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 | 0.3 | 0.3 | 0.25 | 0.25 |
| 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 | Two +43 dBm carriers | Two +43 dBm carriers | Two +43 dBm carriers |

Block Diagram



E14F15P11

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 | |
| <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 | 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 | Green* | OFF | 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

E14F15P11

| | |
|--|--------------------|
| Volume | 5.5 L |
| Weight, net | 6.6 kg 14.55 lb |
| Weight, without mounting hardware | 5.2 kg 11.464 lb |