

# Twin 2-pak Diplexer, 380–960 MHz/1695-2690 MHz, dc pass low, with 4.3-10 connectors

- Industry leading PIM performance
- New 4.3-10 connectors for improved PIM performance and size reduction
- dc/AISG pass-through on low frequency ports
- Minimal Insertion Loss
- Ultra-wideband low-band combiner
- Ultra-wideband high-band combiner
- BTS-to-feeder and feeder-to-antenna application
- Twin configuration

#### Product Classification

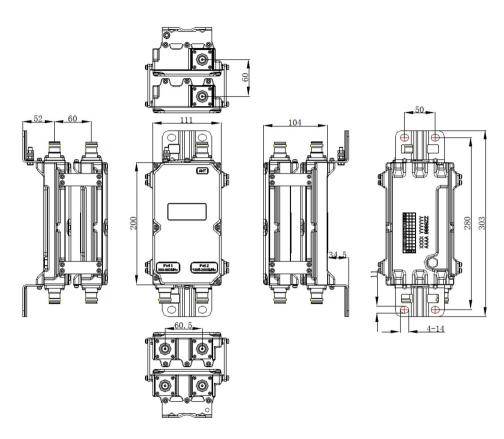
| Product Type                      | Diplexer         |
|-----------------------------------|------------------|
| General Specifications            |                  |
| Product Family                    | CBC426           |
| Color                             | Gray             |
| Common Port Label                 | ANT              |
| 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                            | 200 mm   7.874 i |

| Height                       | 200 mm   7.874 in |
|------------------------------|-------------------|
| Width                        | 111 mm   4.37 in  |
| Depth                        | 104 mm   4.094 in |
| Ground Screw Diameter        | 5 mm   0.197 in   |
| Mounting Pipe Diameter Range | 40-160 mm         |

Page 1 of 4



### Outline Drawing



### Electrical Specifications

| Impedance               | 50 ohm  |
|-------------------------|---|
| License Band, Band Pass | APT 700   AWS 1700   CEL 850   CEL 900   DCS 1800   EDD 800   IMT<br>2100   IMT 2600   LMR 750   LMR 800   LMR 900   PCS 1900   TDD<br>2300   TDD 2600   USA 700   USA 750   WCS 2300 |

### Electrical Specifications, dc Power/Alarm

| dc/AISG Pass-through Method         | Factory set   |
|-------------------------------------|---------------|
| dc/AISG Pass-through Path           | Branch 1      |
| dc/AISG Pass-through, combiner      | Branch 1      |
| dc/AISG Pass-through, demultiplexer | Branch 1      |
| Lightning Surge Current             | 10 kA         |
| Lightning Surge Current Waveform    | 8/20 waveform |

### Electrical Specifications, AISG

Page 2 of 4



| AISG Carrier            | 2176 KHz ± 100 ppm |
|-------------------------|--------------------|
| Insertion Loss, maximum | 0.5 dB             |
| Return Loss, minimum    | 15 dB              |

### **Electrical Specifications**

| Sub-module       | 1   2  | 1   2   |
|------------------|--|---|
| Branch           | 1  | 2   |
| Port Designation | PORT 1 380-960   | PORT 2 1695-2690  |
| License Band     | APT 700, Band Pass<br>CEL 850, Band Pass<br>CEL 900, Band Pass<br>EDD 800, Band Pass<br>LMR 750, Band Pass<br>LMR 800, Band Pass<br>UMR 900, Band Pass<br>USA 700, Band Pass | AWS 1700, Band Pass<br>DCS 1800, Band Pass<br>IMT 2100, Band Pass<br>IMT 2600, Band Pass<br>PCS 1900, Band Pass<br>TDD 2300, Band Pass<br>WCS 2300, Band Pass |

USA 750, Band Pass

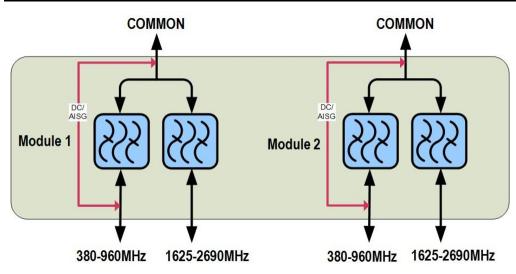
### Electrical Specifications, Band Pass

| Frequency Range, MHz           | 380-960           | 1695-2690         |
|--------------------------------|-------------------|-------------------|
| Insertion Loss, typical, dB    | 0.15              | 0.15              |
| Total Group Delay, maximum, ns | 10                | 10                |
| Return Loss, typical, dB       | 21                | 20                |
| Isolation, minimum, dB         | 50                | 50                |
| Input Power, RMS, maximum, W   | 500               | 500               |
| Input Power, PEP, maximum, W   | 5000              | 5000              |
| 3rd Order PIM, typical, dBc    | -160              | -160              |
| 3rd Order PIM Test Method      | 2 x 20 W CW tones | 2 x 20 W CW tones |

### Block Diagram

Page 3 of 4





#### **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 |
|-------------|-------------------|
| Volume      | 2.5 L             |
| Weight, net | 5 kg   11.023 lb  |

#### Regulatory Compliance/Certifications

#### Classification

ISO 9001:2015

Agency

Designed, manufactured and/or distributed under this quality management system

Page 4 of 4

