

Ultra Compact Twin Diplexer PCS/AWS+WCS+BRS, DC AWS/WCS/BRS, 4.3-10

- Twin configuration
- Ideal for small cell applications
- DC/AISG pass on 1695-1780/2110-2700 MHz
- New 4.3-10 connectors for improved PIM performance and size reduction
- Industry leading PIM performance
- BTS-to-feeder and feeder-to-antenna application

#### **Product Classification**

Product Type Diplexer

#### General Specifications

**Color** Gray

Common Port LabelCommonModularity2-Twin

**RF Connector Interface** 4.3-10 Female

RF Connector Interface Body Style Long neck

#### **Dimensions**

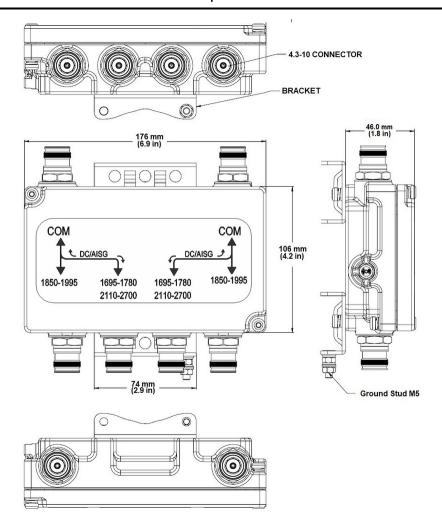
 Height
 106 mm | 4.173 in

 Width
 176 mm | 6.929 in

 Depth
 46 mm | 1.811 in

### Outline Drawing





### **Electrical Specifications**

**Impedance** 50 ohm

**License Band, Band Pass**AWS 1700 | IMT 2600 | PCS 1900 | TDD 1900 | TDD 2600 | WCS 2300

### Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through MethodFactory setdc/AISG Pass-through PathBranch 2dc/AISG Pass-through, combinerBranch 2dc/AISG Pass-through, demultiplexerBranch 2Lightning Surge Current5 kA

**Lightning Surge Current Waveform** 8/20 waveform

**Voltage** 7–30 Vdc



### Electrical Specifications, AISG

**AISG Carrier** 2176 KHz ± 100 ppm

### **Electrical Specifications**

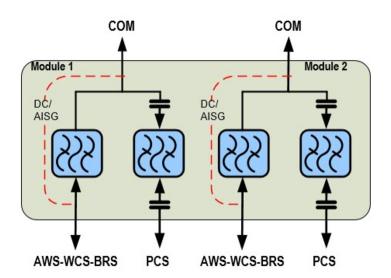
| Sub-module       | 1   2               | 1   2  |
|------------------|---------------------|--|
| Branch           | 1                   | 2  |
| Port Designation | PCS                 | AWS-WCS-BRS  |
| License Band     | PCS 1900, Band Pass | WCS 2300, Band Pass<br>AWS 1700, Band Pass<br>TDD 2600, Band Pass<br>IMT 2600, Band Pass |

## Electrical Specifications, Band Pass

| Frequency Range, MHz           | 1850-1995         | 1695-1780<br>2110-2700 |
|--------------------------------|-------------------|------------------------|
| Insertion Loss, typical, dB    | 0.2               | 0.15                   |
| Total Group Delay, maximum, ns | 15                | 15                     |
| Return Loss, typical, dB       | 22                | 22                     |
| Isolation, typical, dB         | 42                | 42                     |
| Input Power, RMS, maximum, W   | 100               | 100                    |
| Input Power, PEP, maximum, W   | 1500              | 1500                   |
| 3rd Order PIM, minimum, dBc    | -161              | -161                   |
| 3rd Order PIM Test Method      | 2 x 20 W CW tones | 2 x 20 W CW tones      |

# Block Diagram





#### Mechanical Specifications

 Wind Loading @ Velocity, frontal
 24.0 N @ 150 km/h (5.4 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 4.0 N @ 150 km/h (0.9 lbf @ 150 km/h)

#### **Environmental Specifications**

**Operating Temperature**  $-40 \, ^{\circ}\text{C} \text{ to } +65 \, ^{\circ}\text{C} \, (-40 \, ^{\circ}\text{F to } +149 \, ^{\circ}\text{F})$ 

**Relative Humidity** Up to 100%

Corrosion Test Method IEC 60068-2-11, 30 days
Ingress Protection Test Method IEC 60529:2001, IP67

### Packaging and Weights

Mounting Hardware Weight 0.2 kg | 0.441 lb

Volume 0.9 L

Weight, without mounting hardware 1.7 kg | 3.748 lb

## Regulatory Compliance/Certifications

#### Agency Classification

CHINA-ROHS Above maximum concentration value

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted





