Product Classification

Product Type
Diplexer

General Specifications

Product Family
CBC1921Y

Common Port Label
COM

RF Connector Interface
7-16 DIN Female

RF Connector Interface Body Style
Long neck

Dimensions

Height
482.6 mm | 19 in

Width
154.7 mm | 6.091 in

Depth
555.5 mm | 21.87 in

Outline Drawing
### Electrical Specifications

**Impedance**
- 50 ohm

**License Band, Band Pass**
- AWS 1700 | PCS 1900

### Electrical Specifications, dc Power/Alarm

- **dc/AISG Pass-through, combiner**: dc Sensing
- **dc/AISG Pass-through, demultiplexer**: Branch 1 | Branch 2

### Electrical Specifications

<table>
<thead>
<tr>
<th>Sub-module</th>
<th>Branch</th>
<th>Port Designation</th>
<th>License Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>AWS</td>
<td>AWS 1700, Band Pass</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>PCS</td>
<td>PCS 1900, Band Pass</td>
</tr>
</tbody>
</table>

### Electrical Specifications, Band Pass

<table>
<thead>
<tr>
<th>Frequency Range, MHz</th>
<th>Sub-module 1</th>
<th>Sub-module 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1695–1780</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>2110–2200</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>1850–1990</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total Group Delay, maximum, ns</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>
Return Loss, minimum, dB  
19  

Return Loss, typical, dB  
22  

Isolation, minimum, dB  
50  

Isolation, typical, dB  
53  

Input Power, RMS, maximum, W  
200  

Input Power, PEP, maximum, W  
3000  

3rd Order PIM, typical, dBC  
-155  

3rd Order PIM Test Method  
1 x 20 W AWS CW tone  
1 x 20 W PCS CW tone  
2 x 20 W CW tones

Block Diagram
### Logic Table

<table>
<thead>
<tr>
<th>Combining Mode Operation (Ground Based)</th>
<th>RF Ports Input Voltage</th>
<th>DC/AISG Path Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850-1990MHz</td>
<td>1695-1780 MHz 2110-2200 MHz</td>
<td>COMMON</td>
</tr>
<tr>
<td>7 ≤ V ≤ 30</td>
<td>&lt;7</td>
<td>&lt;7</td>
</tr>
<tr>
<td>&lt;7</td>
<td>7 ≤ V ≤ 30</td>
<td>&lt;7</td>
</tr>
<tr>
<td>V&lt;7 or V&gt;30</td>
<td>V&lt;7 or V&gt;30</td>
<td>V&lt;7 or V&gt;30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Splitting Mode Operation (Tower Top)</th>
<th>RF Ports Input Voltage</th>
<th>DC/AISG Path Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850-1990MHz</td>
<td>1695-1780 MHz 2110-2200 MHz</td>
<td>COMMON</td>
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</table>

* DC/AISG will pass to both Band RF Ports, External DC blocks required for proper installation

### Environmental Specifications

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

**Relative Humidity**
Up to 100%

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

### Packaging and Weights

**Weight, net**
30 kg | 66.139 lb