Dual Band Bias Tee Surge Arrestor, 698–960 MHz and 1710–2170 MHz, with interface types DIN Female and DIN Male

Product Classification

Product Type: Surge arrestor
Ordering Note: CommScope® standard product in the United States and Canada

General Specifications

Antenna Interface Signal: RF | dc
BTS Interface Signal: RF | dc Blocked
Injector Port Interface: SMA Female
Injector Port Interface Signal: dc
Inner Contact Plating: Silver
Interface: 7-16 DIN Female
Interface 2: 7-16 DIN Male
Interface Port: Antenna
Interface 2 Port: BTS
Outer Contact Plating: Trimetal
Pressurizable: No

Dimensions

Height: 41.91 mm | 1.65 in
Width: 39.878 mm | 1.57 in
Length: 82.042 mm | 3.23 in

Electrical Specifications

3rd Order IMD: -116 dBm
3rd Order IMD Test Method: Two +43 dBm carriers
Insertion Loss, typical: 0.1 dB
Average Power at Frequency
350.0 W @ 1,940 MHz  |  500.0 W @ 883 MHz

Connector Impedance
50 ohm

dc Injector Port Inner Contact Plating
Gold

Injector Port to Antenna Isolation, minimum
-70 dB

Lightning Surge Capability
10 times @ 6 kA

Lightning Surge Current Waveform
8/20 waveform

Operating Frequency Band
1710 – 2000 MHz  |  2000 – 2170 MHz  |  698 – 960 MHz

Peak Power, maximum
12 kW

Throughput Current, typical
1 A

Voltage Range
-30 V to 30 V

VSWR/Return Loss

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>VSWR</th>
<th>Return Loss (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>698–960 MHz</td>
<td>1.13</td>
<td>24.29</td>
</tr>
<tr>
<td>1710–2000 MHz</td>
<td>1.14</td>
<td>24</td>
</tr>
<tr>
<td>2000–2170 MHz</td>
<td>1.14</td>
<td>24</td>
</tr>
</tbody>
</table>

Mechanical Specifications

Attachment Durability
25 cycles

Coupling Nut Proof Torque
220 in lb  |  24.857 N-m

Coupling Nut Retention Force
1,000.85 N  |  225 lbf

Coupling Nut Retention Force Method
MIL-C-39012C-3.25, 4.6.22

Interface Durability
500 cycles

Interface Durability Method
IEC 61169-16:9.5

Mechanical Shock Test Method
MIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature
-40 °C to +85 °C (-40 °F to +185 °F)

Storage Temperature
-40 °C to +85 °C (-40 °F to +185 °F)

Attenuation, Ambient Temperature
20 °C  |  68 °F

Average Power, Ambient Temperature
40 °C  |  104 °F

Corrosion Test Method
MIL-STD-202, Method 101, Test Condition B

Immersion Depth
1 m
<table>
<thead>
<tr>
<th>Description</th>
<th>Method/Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersion Test Mating</td>
<td>Mated</td>
</tr>
<tr>
<td>Immersion Test Method</td>
<td>IEC 60529:2001, IP68</td>
</tr>
<tr>
<td>Moisture Resistance Test Method</td>
<td>MIL-STD-202, Method 106</td>
</tr>
<tr>
<td>Water Jetting Test Mating</td>
<td>Mated</td>
</tr>
</tbody>
</table>

**Packaging and Weights**

| Weight, net                             | 0.517 kg | 1.14 lb |

**Regulatory Compliance/Certifications**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
</tr>
</tbody>
</table>

* Footnotes

- **Immersion Depth**: Immersion at specified depth for 24 hours
- **Insertion Loss, typical**: $0.05\sqrt{\text{freq (GHz)}}$ (not applicable for elliptical waveguide)