4-port multibeam antenna, 4x 1710–2180 MHz, 2x 38° HPBW, RET compatible

- Enhances network capacity through six sectors site application with only three antenna faces
- Single panel design supporting two separate beams perfectly optimized at horizontal pointing angles of +27 degrees and -27 degrees from boresight
- Maximizes frequency spectrum utilization to increase Average Revenue Per User (ARPU)
- Reduces antenna count to minimize CapEx and OpEx costs
- High gain with excellent sector edge roll-off and azimuth sidelobe suppression
- Each antenna downtilt can be independently adjusted for greater flexibility in network optimization

### Electrical Specifications

<table>
<thead>
<tr>
<th>Frequency Band, MHz</th>
<th>1710–1880</th>
<th>1850–1990</th>
<th>1920–2180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain, dBi</td>
<td>19.3</td>
<td>19.6</td>
<td>19.9</td>
</tr>
<tr>
<td>Beam Centers, Horizontal, degrees</td>
<td>±27</td>
<td>±27</td>
<td>±27</td>
</tr>
<tr>
<td>Beamwidth, Horizontal, degrees</td>
<td>38</td>
<td>36</td>
<td>34</td>
</tr>
<tr>
<td>Beamwidth, Vertical, degrees</td>
<td>7.6</td>
<td>7.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Beam Tilt, degrees</td>
<td>0–10</td>
<td>0–10</td>
<td>0–10</td>
</tr>
<tr>
<td>Horizontal Sidelobe, dB</td>
<td>24</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>USLS (First Lobe), dB</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Gain Roll-off at Boresight, dB</td>
<td>10</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Gain Roll-off at Boresight Tolerance, dB</td>
<td>±0.7</td>
<td>±0.8</td>
<td>±0.9</td>
</tr>
<tr>
<td>Front-to-Back Ratio at 180°, dB</td>
<td>33</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Isolation, Cross Polarization, port to port, dB</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>VSWR</td>
<td>Return Loss, dB</td>
<td>1.43</td>
<td>1.43</td>
</tr>
<tr>
<td>PIM, 3rd Order, 2 x 20 W, dBc</td>
<td>-150</td>
<td>-150</td>
<td>-150</td>
</tr>
<tr>
<td>Input Power per Port, maximum, watts</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Polarization</td>
<td>±45°</td>
<td>±45°</td>
<td>±45°</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 ohm</td>
<td>50 ohm</td>
<td>50 ohm</td>
</tr>
</tbody>
</table>

### Electrical Specifications, BASTA*

<table>
<thead>
<tr>
<th>Frequency Band, MHz</th>
<th>1710–1880</th>
<th>1850–1990</th>
<th>1920–2180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain by all Beam Tilts, average, dBi</td>
<td>18.9</td>
<td>19.4</td>
<td>19.6</td>
</tr>
<tr>
<td>Gain by all Beam Tilts Tolerance, dB</td>
<td>±0.5</td>
<td>±0.3</td>
<td>±0.6</td>
</tr>
<tr>
<td>Gain by Beam Tilt, average, dBi</td>
<td>0°</td>
<td>18.7</td>
<td>0°</td>
</tr>
<tr>
<td>5°</td>
<td>19.0</td>
<td>5°</td>
<td>19.5</td>
</tr>
<tr>
<td>10°</td>
<td>18.9</td>
<td>10°</td>
<td>19.4</td>
</tr>
<tr>
<td>Beamwidth, Horizontal Tolerance, degrees</td>
<td>±1.5</td>
<td>±1.2</td>
<td>±2.1</td>
</tr>
<tr>
<td>Beamwidth, Vertical Tolerance, degrees</td>
<td>±0.4</td>
<td>±0.3</td>
<td>±0.5</td>
</tr>
<tr>
<td>USLS, beampeak to 20° above beampeak, dB</td>
<td>17</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>
HBXX-3817TB1-VTM | HBXX-3817TB1-A2M

Front-to-Back Total Power at 180° ± 30°, dB
- 29
- 30
- 28
CPR at Boresight, dB
- 24
- 24
- 18
CPR at Sector, dB
- 12
- 15
- 13

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs](#).

**General Specifications**

**Operating Frequency Band**
- 1710 – 2180 MHz

**Antenna Type**
- Multibeam

**Band**
- Single band

**Performance Note**
- Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN

**Mechanical Specifications**

**RF Connector Quantity, total**
- 4

**RF Connector Quantity, high band**
- 4

**RF Connector Interface**
- 7-16 DIN Female

**Color**
- Light gray

**Grounding Type**
- RF connector inner conductor and body grounded to reflector and mounting bracket

**Radiator Material**
- Low loss circuit board

**Radome Material**
- Fiberglass, UV resistant

**Reflector Material**
- Aluminum

**RF Connector Location**
- Bottom

**Wind Loading, frontal**
- 202.0 N @ 150 km/h
- 45.4 lbf @ 150 km/h

**Wind Loading, lateral**
- 166.0 N @ 150 km/h
- 37.3 lbf @ 150 km/h

**Wind Loading, maximum**
- 388.0 N @ 150 km/h
- 87.2 lbf @ 150 km/h

**Wind Speed, maximum**
- 241 km/h | 150 mph

**Dimensions**

**Length**
- 1390.0 mm | 54.7 in

**Width**
- 301.0 mm | 11.9 in

**Depth**
- 181.0 mm | 7.1 in

**Net Weight, without mounting kit**
- 13.6 kg | 30.0 lb

**Remote Electrical Tilt (RET) Information**

**Model with Factory Installed AISG 2.0 Actuator** HBXX-3817TB1-A2M

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Packed Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>1598.0 mm</td>
<td>62.9 in</td>
</tr>
<tr>
<td>Width</td>
<td>404.0 mm</td>
<td>15.9 in</td>
</tr>
<tr>
<td>Depth</td>
<td>310.0 mm</td>
<td>12.2 in</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>25.0 kg</td>
<td>55.1 lb</td>
</tr>
</tbody>
</table>

Regulatory Compliance/Certifications

**Agency**
- RoHS 2011/65/EU Compliant by Exemption
- ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system
- China RoHS SJ/T 11364-2014 Above Maximum Concentration Value (MCV)
- CE Compliant with the relevant CE product directives

Included Products

**BSAMNT-3** — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

**Performance Note**
Severe environmental conditions may degrade optimum performance