Features

- Dual Band Tower Top Amplifier (TTA) System
- Ultra Low Noise Figure / 1.4 dB Typical
- 6-12 dB User Adjustable Gain in 1 dB Steps
- Specified Rx Band Rejection 1785-1830 MHz
- High Rx Band IIP3 / +17 dBm Typical
- Direct Antenna Connection for Lowest Possible Noise Figure
- Kit Includes Mounting Bracket, DC/CTRL & RET Cables for Triple Tree™ Installation
- Communicate/Control via AISG

Uplink (Rx) Specifications - Each Path

<table>
<thead>
<tr>
<th>AWS Passband</th>
<th>1710-1755 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS Passband</td>
<td>1850-1910 MHz</td>
</tr>
<tr>
<td>Input Filter Rejection:</td>
<td></td>
</tr>
<tr>
<td>@ 1785-1830 MHz</td>
<td>10 dB minimum</td>
</tr>
<tr>
<td>@ 1930-2155 MHz</td>
<td>74 dB minimum</td>
</tr>
<tr>
<td>Passband Gain</td>
<td>6-12 dB in 1 dB steps via AISG</td>
</tr>
<tr>
<td>Passband Gain Accuracy</td>
<td>+/- 0.5 dB @ band center(s)</td>
</tr>
<tr>
<td>Passband Noise Figure:</td>
<td></td>
</tr>
<tr>
<td>@ 12 dB gain - AWS:</td>
<td>2.0 dB maximum, 1.2 dB typical</td>
</tr>
<tr>
<td>@ 12 dB gain - PCS:</td>
<td>2.2 dB maximum, 1.4 dB typical</td>
</tr>
<tr>
<td>Passband Input IP3</td>
<td>+15 dBm min. (+18 dBm typ.)</td>
</tr>
<tr>
<td>Passband Bypass Loss</td>
<td>3.4 dB max. (2.7 dB typ.)</td>
</tr>
<tr>
<td>Passband Return Loss:</td>
<td></td>
</tr>
<tr>
<td>@ Normal Operation</td>
<td>16 dB min. (20 dB typ.)</td>
</tr>
<tr>
<td>@ Bypass Operation</td>
<td>10 dB min. (12 dB typ.)</td>
</tr>
</tbody>
</table>

Downlink (Tx) Specifications - Each Path

<table>
<thead>
<tr>
<th>AWS Passband</th>
<th>2110-2155 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS Passband</td>
<td>1930-1990 MHz</td>
</tr>
<tr>
<td>Passband Insertion Loss:</td>
<td></td>
</tr>
<tr>
<td>2110-2155 MHz:</td>
<td>0.50 dB maximum, 0.40 dB typical</td>
</tr>
<tr>
<td>1930-1990 MHz:</td>
<td>0.70 dB maximum, 0.55 dB typical</td>
</tr>
<tr>
<td>Passband Return Loss:</td>
<td></td>
</tr>
<tr>
<td>@ Normal Operation</td>
<td>17 dB min. (21 dB typ.)</td>
</tr>
<tr>
<td>IMD in Rx Band</td>
<td>-112 dBm max w/two +43 dBm tones</td>
</tr>
<tr>
<td>Input Power (per passband)</td>
<td>100W RMS / 1.5KW PEP min.</td>
</tr>
<tr>
<td>Conditions</td>
<td>Simultaneous 2:1 Antenna VSWR, +65°C case temp &amp; 3000m altitude</td>
</tr>
</tbody>
</table>

SXC050-V1 Kit Parts List

- SXC049-V1 Master AWS/PCS TTA
- SXC049-V2 Slave AWS/PCS TTA
- CAY-000045 RET Cable Assembly
- CAY-000048 DC/CTRL Cable Assembly
- BKT-000032 Triple Tree Mounting Bracket
- PLT-000038 (for shipment only - removed upon installation)
- M6 Nuts & Screws for BKT-000032 Installation
DC/AISG Specifications

- **DC Supply**: +10VDC to +30VDC (+12VDC nom) on BTS center conductor
- **Input Power**: 3.0 W max. (–V1 & -V2 only, no RET power included)
- **Surge Suppression**: 8/20us waveform, 5kA
- **Alarm**: AISG
- **AISG Compatibility**: v2.0, +/- 100ppm

Environmental Specifications

- **Operating Temperature**: -40°C to +65°C
- **Altitude**: 3000m
- **Ingress Protection**: IP62
- **RoHS/WEEE**: Compliant

System Block Diagram

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Mechanical Characteristics

- **Connectors**:
  - BTS: 7-16 DIN Female
  - ANT: 7-16 DIN Male
  - RET: Circular Female per IEC-60130-9
  - DC/CTRL: SMA-F
- **Chassis Grounding**: Via BKT-000032 to Triple Tree structure
- **Weight**: 8.8 lbs (4.0 kg)
- **Dimensions**: 352.0 x 144.4 x 90.44 mm (including connectors & mounting bracket)
- **Mounting**: Direct Mate to Antenna Connector (BKT-000032 Mount to Triple Tree)
- **Finish**: Epoxy Paint
- **Color**: Light Gray
- **MTBF**: 500,000 Hours
- **Block Diagrams**: See Below

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Block Diagram: SXC049-V1 Master Unit

Block Diagram: SXC049-V2 Slave Unit

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**Mechanical Outline**

Standard mounting bracket of SXC050-V1 will ensure successful installation in dBSpectra Triple Tree™ Antennas. For installation in Commscope/Andrew HBXX™ or TMBXX™ Antennas, order KIT-000010.