STA54250P DBS Series
2500W Ultralinear DBS-Band
Antenna Mount HPA

FEATURES

Ultralinear
Lightweight
High Efficiency
Broadband

STA54250P DBS series 2500W Antenna Mount HPA
The STA54250P DBS series HPA provides ultra linear, high efficiency performance in a compact, lightweight, rugged, weatherproof, antenna mount enclosure. The advanced packaging and cooling techniques enable the unit to operate in extreme environmental conditions from direct rain to direct sunlight. The amplifiers can be simply deployed anywhere in the world, are user-friendly and incorporate a comprehensive remote control facility as standard, including RS485, RS232 and Ethernet options.

The HPA incorporates a high efficiency multi-collector TWT powered by an advanced power supply built on over 30 years of experience in the design and manufacture of satellite amplifiers.

The company’s products have an enviable reputation for performance, robust quality and reliable service.

The STA54250P DBS is available with a wide range of options and accessories, backed by worldwide technical support.

Features
• Advanced cooling design enables operation at +60°C and in direct sunlight
• Weatherproof antenna mount construction allows exposed mounting
• Ethernet/SMP/Webpage GUI interfaces
• Broadband – high efficiency operation
• Modular construction for long term serviceability
• Removable air filters

• CE complaint
• Wide input voltage range - can operate from mains supplies worldwide
• Redundant control - contains control and drive circuits for 1:1 redundancy
• Stand-alone setting - automatically sequences to transmit mode
• Wide range of accessories including: Controllers, waveguide networks, cable assemblies
**RF Performance:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DB1</th>
<th>DB2</th>
<th>DB3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>17.3 – 18.1 GHz</td>
<td>17.3 – 18.4 GHz</td>
<td>17.3 – 17.8 GHz</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>500 MHz / 750 MHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Power</td>
<td>(for load VSWR ≤ 1.5:1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Power, PEAK</td>
<td>63.0 dBm (2000 W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWT Power, PEAK</td>
<td>61.0 dBm (1250 W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated (flange)</td>
<td>59.5 dBm (950 W) typical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear, P_{LIN}</td>
<td>59.5 dBm (950 W)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Prime Power:**

- **AC Input Voltage**: 200-240 VAC ± 10%, single phase
- **Full Load Current**: 13 A max @ 200 VAC
- **Power Consumption**: 2300 VA typical / PA
  - 2600 VA maximum / PA
  - 5000 VA typical / SYSTEM
  - 5500 VA maximum / SYSTEM
- **Power Factor**: 0.98 typical
  - 0.96 minimum

**Environmental:**

- **Ambient Temperature**: -40°C to +60°C
- **Relative Humidity**: 100% condensing
- **Altitude**: 12,000 ft. with standard adiabatic de-rating of 2°C/1000 ft., operating
  - 50,000 ft., non-operating
- **Shock**: 15 g peak, 11 mSec, 1/2 sine
- **Vibration**: 3.2 g rms, 10-500 Hz
- **Acoustic Noise**: 65 dBA @ ≥3 ft. from amplifier
- **Solar Gain**: 1120 2/m²

**Mechanical:**

- **Dimensions**: Request outline
- **Length**: 52 cm / HPA
  - 86 cm / SYSTEM
- **Width**: 26 cm / HPA
  - 79 cm / SYSTEM
- **Height**: 26 cm / HPA
  - 36 cm / SYSTEM
- **Weight**: 21 kg typical / HPA
  - 80 kg typical / System

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RF Input</strong></td>
<td>Type N(f) 50 ohm</td>
</tr>
<tr>
<td><strong>RF Output</strong></td>
<td>WR-62</td>
</tr>
<tr>
<td><strong>RF Sample</strong></td>
<td>Type N(f) 50 ohm</td>
</tr>
<tr>
<td><strong>AC Input</strong></td>
<td>Amphenol C016 20C003 200 12</td>
</tr>
<tr>
<td><strong>Ethernet</strong></td>
<td>RJF71B</td>
</tr>
<tr>
<td><strong>M&amp;C Connector</strong></td>
<td>PT07E18-32S (MS3114E-18-32S)</td>
</tr>
</tbody>
</table>

**Group Delay (any 80 MHz):**

- **Linear**: 0.01 nsec/MHz, max
- **Parabolic**: 0.005 nsec/MHz², max
- **Ripple**: 0.5 nsec/Peak-Peak, max