

**200 W SINGLE S BAND POWER
AMPLIFIER**

- **200 W OUTPUT RF POWER**
- **STABLE OUTPUT POWER OVER TEMPERATURE**
- **ETHERNET M&C INTERFACE**
- **ROBUST CONSTRUCTION**

This solid state power amplifier is intended for use in S band satellite communications systems as uplink SSPA. It is to be installed directly to the antenna. The outdoor construction protects the amplifier against harsh environmental conditions. The SSPA can be fully remotely monitored and control via the built-in Ethernet interface.

Electrical parameters

Specification	Parameter
Frequency Band	2025 – 2120 MHz
RF Output Power	53 dBm min. @ P1dB
Power Gain	75 dB min.
Gain Slope	± 0.1 dB/10 MHz max.
Gain Flatness	± 0.5 dB
Output Power Stability vs. Temp (ALC ON)	± 1 dB(-40°C to +60°C) max.
ALC Control	20 dB min.
AM/PM Conversion @ P1 dB	2.5°/dB max.
In/Out Impedance Nominally	50 Ohms
Input VSWR	< 1.3 : 1
Output VSWR	< 1.4 : 1
Output Noise In Band 2.2-2.3 GHz with filter (*)	< -125 dBm/Hz @ 2200MHz < -155 dBm/Hz @ 2300MHz (filter characteristics can be improved upon request)
Gain Adjustment Range	min. 20 dB, typ.25 dB
Gain Adjustment Step	0.1 dB typ.
Harmonics @ P1 dB-3 dB	< -60 dBc
Spurious	< -80 dBc
Group Delay Variation (linear)	< 0.03ns / MHz with filter
Noise Figure (redundant system)	< 8 dB
Noise Figure (standalone system)	< 3 dB
Intermodulation Distortion @ 2 x 47 dBm Pout	< -25 dBc
MTBF	> 130 000 Hours
M&C interface for local control panel	Ethernet
Power supply	100-260 V; 47-63 Hz
Operating temperature range	-40°C to +60°C

(*) Current specification. Any changes shall be discussed and agreed separately. Based on the changes the price may change.



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Control SW screenshot:

The screenshot displays the BPBS Control Program v1.3.9.3 interface. It features a top navigation bar with 'Factory Settings', 'User Settings', and 'Remote Control' sections. The 'Factory Settings' section includes 'Recall' and 'Boot Mode' buttons. The 'User Settings' section includes 'Recall' and 'Save' buttons. The 'Remote Control' section includes 'Restart Device' and 'Settings' buttons. The 'System Status' section shows 'IP: 192.168.16.188', 'Port: 23', and a 'Connect' button. The 'System Status' also indicates 'Connected' and 'Connections: 1'.

The main interface is divided into several sections:

- Summary:** Device Type: BPBS49, Serial Number: 005, Date of Manufacture: 08.08.2017, Firmware Version: 2.7.
- Control:** ALC ON-OFF (ON/OFF), ALC Level (53.0 dBm), Attenuation (00.0 dB).
- AMPLIFIER:** RF OFF, RF Out: OFF. Output Power: < 5 dBm (bar chart 0-54). Temperature: 33.80 °C (bar chart -40-85).
- Monitor:** Table with columns 'Monitor', 'Current', and 'History'.

Monitor	Current	History
Temperature	●	●
9V Supply Voltage	●	●
30V Supply Voltage	●	●
Output Return Loss	●	●
9V Current	●	●
Driver FET Current	●	●
End FET(1) Current	●	●
End FET(2) Current	●	●
Fan curr.	●	●
- RF by User:** ON/OFF.
- Operating Mode:** Standalone.

The BHE logo is visible in the bottom left corner of the interface.



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Outline drawing (mm):

