



**100 W 1:1 REDUNDANT S BAND
POWER AMPLIFIER**

- **100 W OUTPUT RF POWER**
- **STABLE OUTPUT POWER OVER TEMPERATURE**
- **1:1 HOT REDUNDANT ARRANGEMENT**
- **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. 1:1 hot redundant arrangement increases the reliability of the system.

Electrical parameters

Operation Frequency Band	2025 – 2120 MHz
RF Output Power	50 dBm @ P _{3dB} min
Gain	70 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
Input VSWR	< 1.3:1
Output VSWR	< 1.4:1
Output Noise in 2.2-2.3 GHz	< -125 dBm/Hz with filter
Gain adjustment range	min. 20 dB, typ. 25 dB
Gain adjustment step	0.1 dB typ
Harmonics @ P _{1dB-3dB}	< - 60 dBc
Spurious	< - 80 dBc
Noise Figure	< 8 dB
Intermodulation distortion @ P _{out} =47 dBm	< - 25 dBc typ.
Remote M&C interface	Ethernet
Operating Temperature Range	-40°C to +60°C
Power supply	110-240 V AC, 47-63 Hz

*Specifications are subject to change without notice



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Control SW screenshot:

The screenshot displays the BPBS Control Program interface. At the top, there are navigation tabs for Factory Settings, User Settings, and Remote Control. The Remote Control section is active, showing a 'Connect' button and 'Settings' options. The system status is 'Connected' with IP 192.168.16.134 and port 40000. The main area is divided into several sections: 'Master Summary' (Device Type: BPBS44, Serial Number: 002, Date of Manufacture: 21.11.2016, Firmware Version: 1.0), 'PAM A' and 'PAM B' status (both Active), and 'Selected PAM Settings' (ALC ON-OFF: ON, ALC Level: 50.0 dBm, Attenuation: 0.0 dB, Input Switch Off Level: -10 dBm, RF by User: ON). The 'Monitor' section shows current and history for Temperature, 9V, 30V, and 5V supply voltages. The 'Switch Settings' section shows 'Auto Mode' selected. The 'User Mode' section shows 'Active PAM' as PAM A. The 'Auto Mode' section shows 'Preferred PAM' as PAM A. The 'RF Load' section shows 'Antenna' selected. The BHE logo is visible in the bottom right corner of the interface.



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Outline drawing (mm):

