

**200 W 1:1 REDUNDANT S-BAND
POWER AMPLIFIER**

- **200 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

Specification	Parameter
Frequency Band	2025 – 2120 MHz
RF Output Power	53 dBm min.
Power 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.
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
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	RS485
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:

BPBS Control Program v1.3.9.3

Factory Settings: Recall, Boot Mode

User Settings: Recall, Save

Remote Control: Restart Device, Settings

IP: 192.168.17.1
Port: 40000
Connect

System Status: Connected
Connections: 1

Master Summary | Master Details | PAM A Summary | PAM B Summary

Device Type: BPBS48
Serial Number: 002
Date of Manufacture: 08.08.2017
Firmware Version: 2.3

PAM A: Active, Connection State, Communication State (all green)

PAM B: Active, Connection State, Communication State (all green)

Selected PAM Settings:
ALC ON-OFF: ON/OFF
ALC Level: 53.0 dBm
Attenuation: 00.0 dB
RF by User: ON/OFF
Output Power = < 5 dBm
Output Return Loss = N.A. dB

Monitor:
Center Temp., Dummy Temp., 30V Supply Voltage, 30V Supply Current, 5V Supply Voltage, Fan Current (all green)

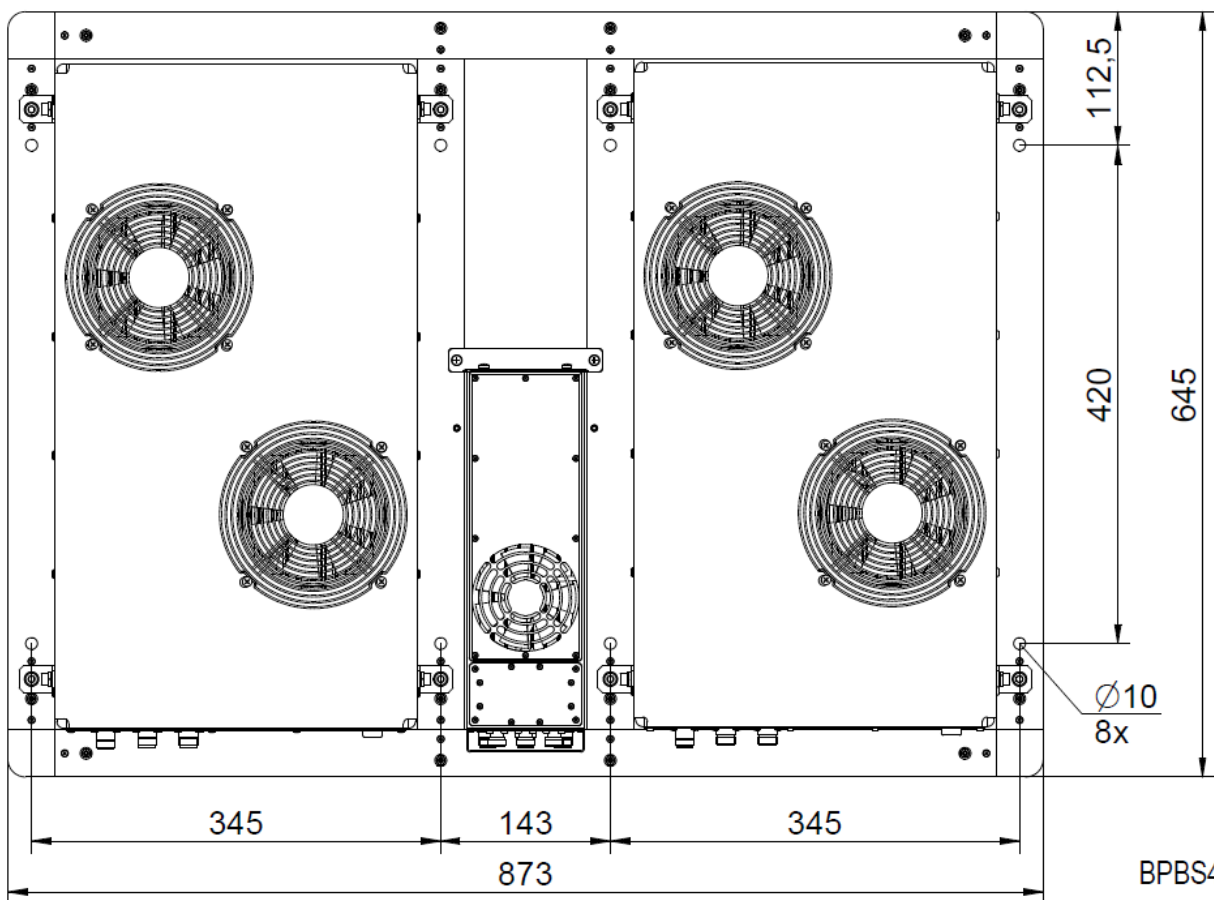
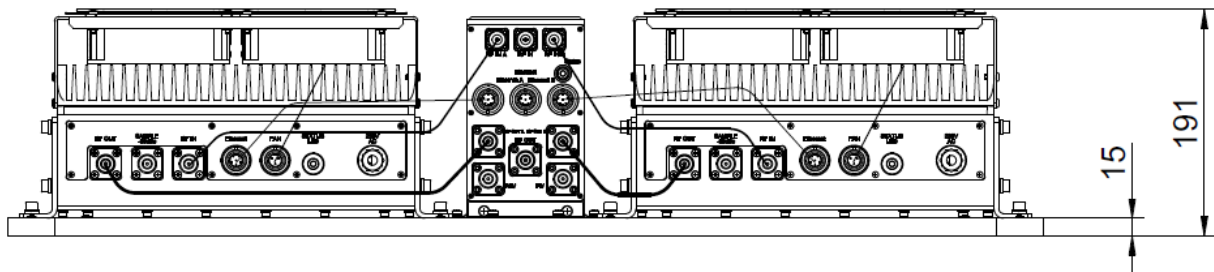
Switch Settings:
Selection Mode: User Mode, Auto Mode
User Mode: Active PAM (PAM A), PAM B
Auto Mode: Preferred PAM (PAM A), PAM B

RF Load:
Dummy Load, Antenna

BHE logo

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Outline drawing (mm):



BPBS48 Outline