BPBS71
25W S-band Power Amplifier

MAIN FEATURES

- 25 W output RF power
- Stable output power over temperature
- Low noise figure
- Ethernet M&C interface
- Robust contruction

DESCRIPTION

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.

SPECIFICATIONS

Operation Frequency Band	2025 - 2120 MHz
RF Output Power	44 dBm @ P_{3dB} min.
Gain	65 dB min.
Gain Slope	± 0.1 dB / 10 MHz max.
Gain Flatness	± 0.5 dB
Gain Stability / 24 hours @ constant temperature	± 0.25 dB
Output Power Stability vs. temp (ALC ON)	± 1 dB (-40°C to +60°C) max.
AM/PM Conversion @ P_{3dB}	2.5°/dB
ALC Control Range	20 dB min.
In / Out Impedances Nominally	50 Ω
Input VSWR	< 1.3:1
Output VSWR	< 1.4:1
Output Noise in Band 2025-2120 MHz	< -105 dBm/Hz
Output Noise in Band 2200-2300 MHz	< -130 dBm/Hz with filter
Group Delay Variation (with filter)	Linear: 0.02ns/MHz Parabolic: 0.001ns/MHz^2 Ripple: 1ns pk-pk
Gain Adjustment Range	min. 20 dB
Gain Adjustment Step	0.1dB typ.
RMS Power Monitoring Accuracy	± 0.5 dB
Harmonics @P_{3dB}-3dB	< -60 dBc
Spurious @P_{3dB}-3dB	< -80 dBc

BHE
BONN HUNGARY
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Output Sample	-50 dBc typ.
Noise figure	< 3 dB
Intermodulation distortion @ P_{out}=41dBm (two tone, 38dBm/tone, 5MHz spacing)	< -28 dBc typ.
MTBF	>130 000 Hours
Remote M&C interface	Ethernet
External Mute Function	Optional
Operation Temperature Range	-40°C ... +60°C
Relative Humidity	100%
IP Protection Class	IP65
Shock & Vibration	Transportation
Weight	11 kg
Connectors	AC: Hirose HMS3102A18-10-D-T1 ETHERNET: Amphenol MS3112E12-10S RF IN: N Female SAMPLE: N Female RF OUT: N Female
Dimensions (L x W x H)	360 x 380 x 111 mm (with holders) 360 x 304 x 90 mm (without holders)
Power Supply	110-240 V AC, 47-63 Hz
AC Power Consumption (230V AC) @ P_{out}=44dBm	< 120 VA

Specifications are subject to change without notice.

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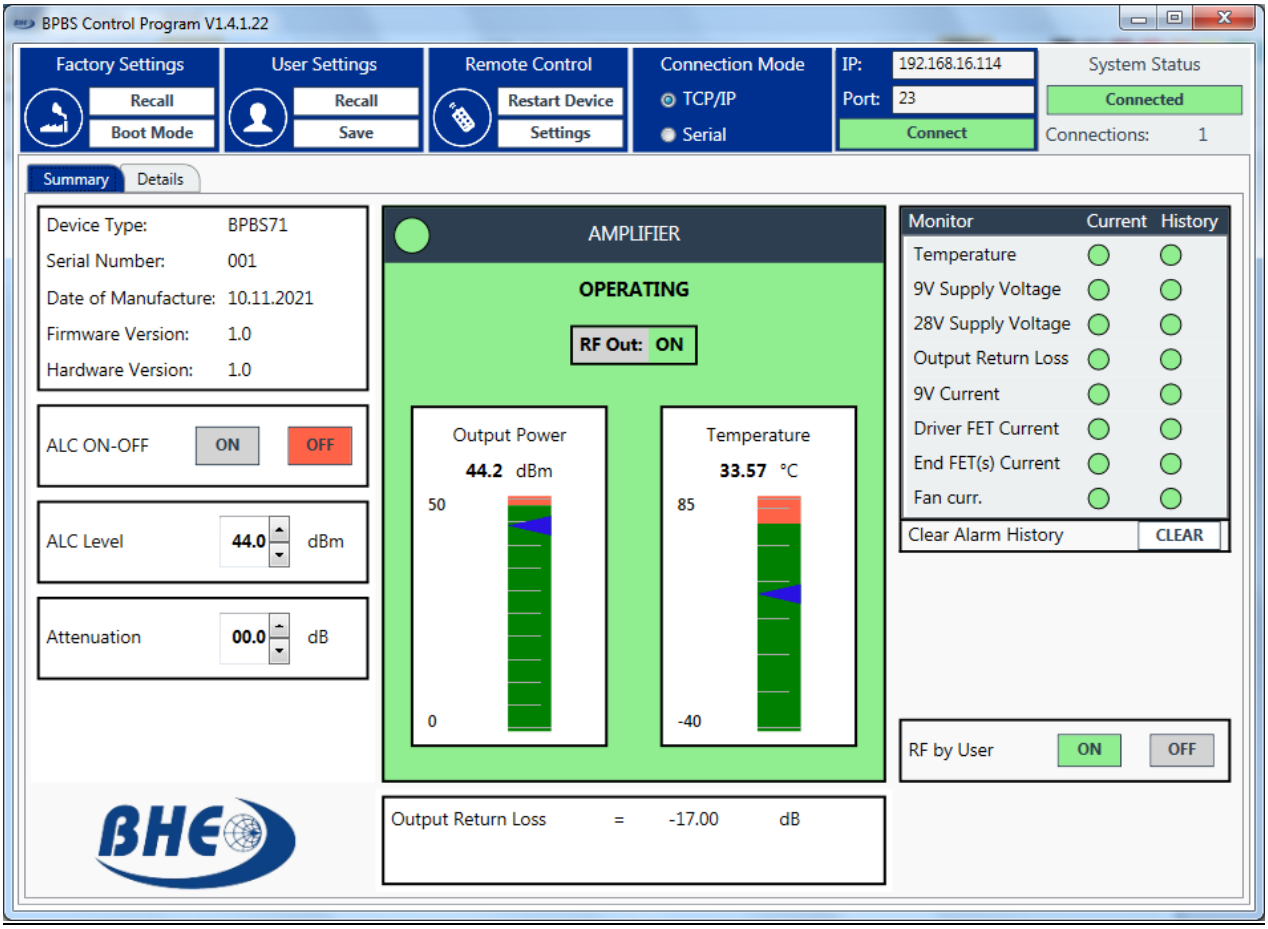
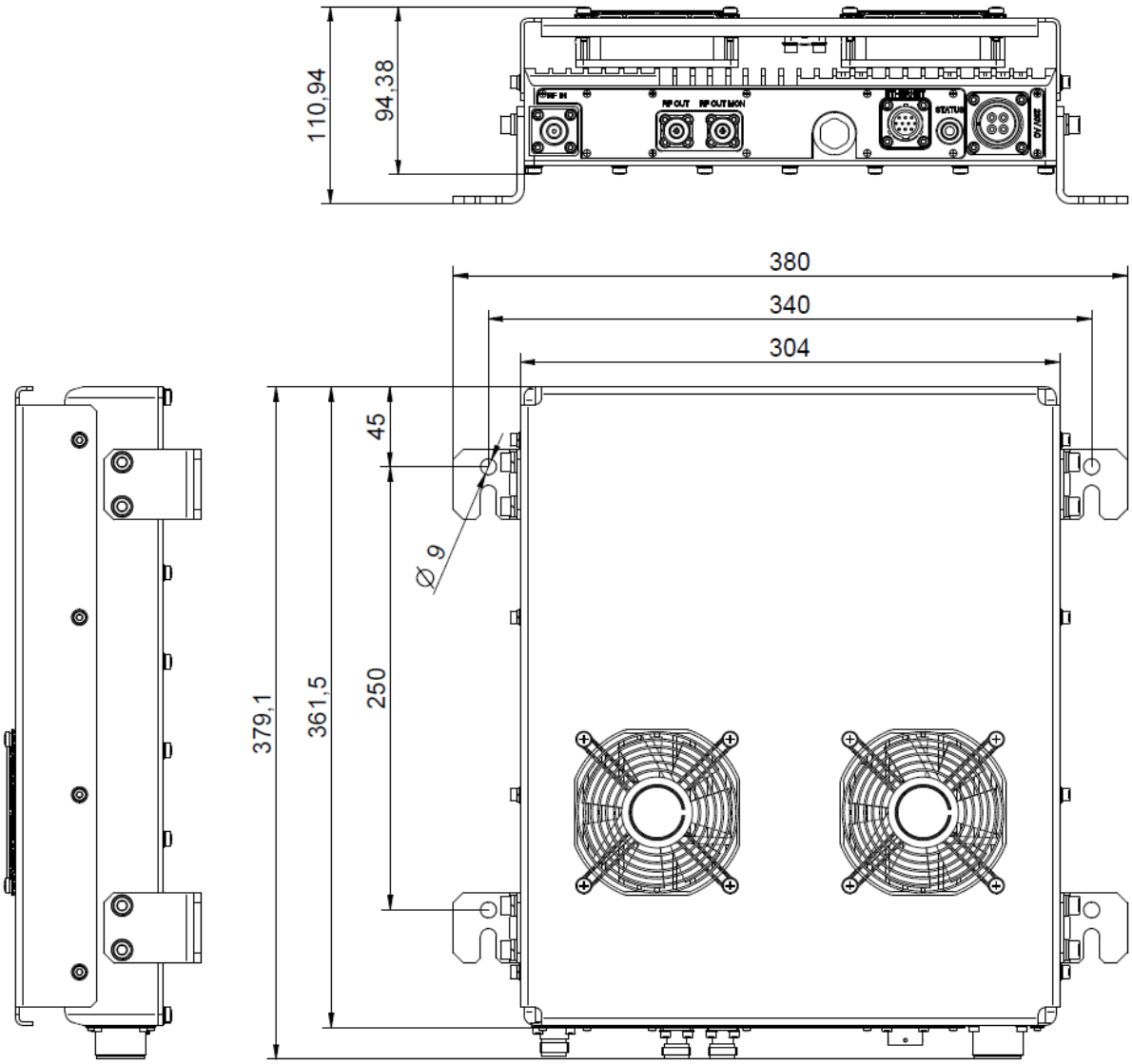
CONTROL SOFTWARE SCREENSHOT



OUTLINE DIMENSIONS (mm)



ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BPBS71K11122	BPBS71 25 W, S band, 2025–2120 MHz, power amplifier module, Mute function

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BPBS71-LM-K11122	V01	30/03/2023