BRRF16S
FM Power Amplifier

MAIN FEATURES

- High output power
- Full band amplifier
- Low distortion
- 3U high, 19" wide frame, fit into rack
- Front panel LED for status monitoring

DESCRIPTION

BRRF16S is the high-power amplifier part of BHE's FM broadcast solution. It can be operated as a single unit to amplify the whole respective band, or in a cascaded arrangement with the relevant channel selector units (e. g. BRRF14). In the latter case, only the selected channels are amplified. BRRF16S is equipped with one FM broadcast amplifier with Ethernet control. A single amplifier can serve several channel modules. This unit can be combined with BHE rackmount FM, DAB, VHF and TETRA repeaters fulfilling the various communications needs of special places like tunnels or underground stations.

SPECIFICATIONS

ELECTRICAL PARAMETERS	
Number of input ports	1
Frequency bands	87.5 – 108 MHz
Input VSWR (all inputs)	1.2:1 typ.
RF input level	+16 dBm maximum per input
Nominal input level @ max. gain	-15 dBm
Number of output ports	1 High power, 1 Low power monitor
Output power, one channel	40 dBm
Output power, composite	29 dBm @ 2 channel, 26 dBm @ 4 channel, ETSI Compliant
Nominal gain	47 dB typical
Gain setting range	16 – 47 dB adjustable in 1dB steps
Gain flatness and variation	<2 dB
Output IP3	+62 dBm typical
Harmonics	According to the ETSI regulation
Output VSWR	2:1
Power supply voltage	230 VAC, 50 – 60 Hz
Power consumption	90 W typical
MECHANICAL PARAMETERS	
Type of power supply connector	IEC C14 male (Accessory cable IEC C13 with type I plug)
Type and number of RF connectors	N – females for RFIN, RFOUT; BNC – female for monitoring
Type of control connectors	RJ45 (LAN) and D-SUB male (direct)
Weight	<11 kg
Dimension	19" 3U (see outline dimensions)
ENVIRONMENTAL PARAMETERS	
Operating temperature range	0 °C … +50 °C
Storage temperature range	-30 °C … +70 °C
Relative humidity	<75%, non-condensing
Cooling	Switched forced cooling
Degree of protection	IP20 Indoor

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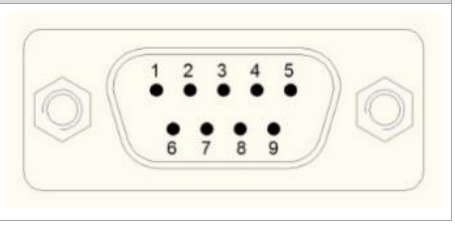
SOFTWARE PARAMETERS	
Monitoring & control	Via Ethernet, using SNMP v1/v2c protocol or the web user interface
Monitored parameters	Forward/reverse output power, internal DC voltages, temperature
Alarm I/O	Status LED on front panel (two-color), SNMP trap messages, dry contact (summary alarm) output
Digital inputs	Mute: Active Low, firmware dependent
Digital outputs	Alarm: Dry contact

SUM ALARM CONNECTOR PINOUT (D-SUB MALE) (1)

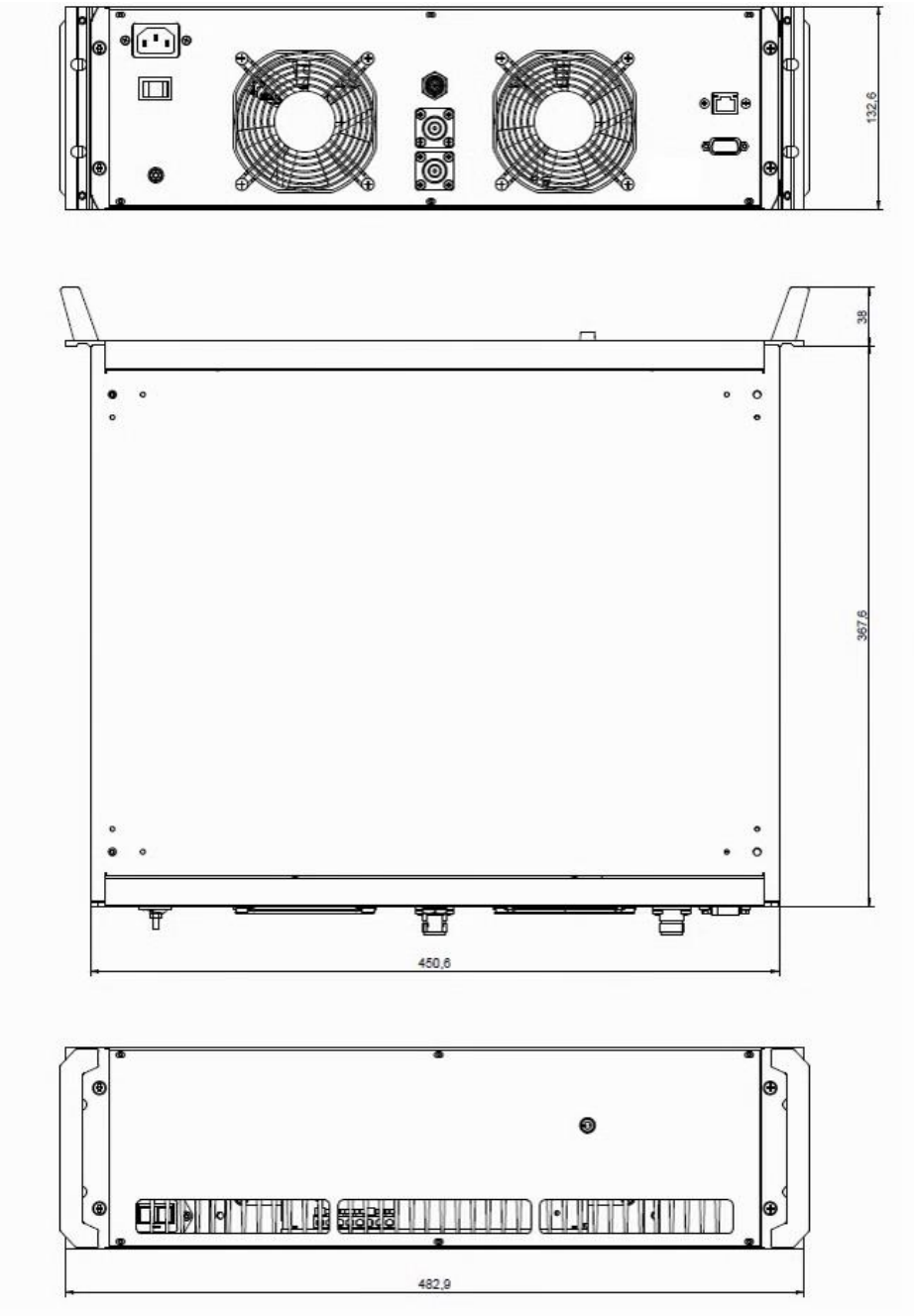
Pin no.	Function	Pin no.	Function
1	Dry Contact	6	N.C.
2	Dry Contact	7	N.C.
3	N.C.	8	N.C.
4	Mute In	9	N.C.
5	GND	-	-



Specifications are subject to change without notice.

(1) In POWERED OFF state the relay will be open. The operation of the Dry Contact relay is configurable by the user.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRRF16K11307	BRRF16S 10W: 87.5-108MHz, G=45 dB, OIP3=61dBm typ, Pout 28.7 dBm/2ch, 19 dBm/ 8ch, 230 VAC, 19" 3U, N-female RF connectors, SNMP, AUS plug

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRRF16-LM-K11307	V01	2023-02-22