



BRRF15 & BRRD15

FM & DAB AMPLIFIER MODULES

- **HIGH OUTPUT POWER**
- **LOW DISTORTION**
- **3U HIGH MODULES**
- **FIT INTO 19" RACK**

BRRF15 and BRRD15 are the amplifier parts of BHE's FM and DAB solution. They can be operated as single units to amplify the whole respective band, while connecting them in a chain with the relevant channel unit (BRRF14 / BRRD14), only the selected channel is amplified. One amplifier can serve several channel module. Placed in a modern rackmount box, these units can be combined with BHE rackmount TETRA repeaters fulfilling the various communications need of special places like tunnels or underground stations.

Electrical characteristics:

Specification	BRRF15 FM Broadcast amplifier	BRRD15 DAB amplifier
Input characteristics		
Frequency range	87.5 – 108MHz	174 – 240MHz
Input VSWR (all inputs)	1.2:1	
Number of input ports	3 independent, combined inside unit	
Input level	+16dBm maximum per input	
Output characteristics @ High power output		
Number of ports	1	
Max. Gain	+26dB typical	
Programmable attenuation	0 – 25dB-	
Gain step	0.5dB	
Output 1dB compression@+25°C	+35dBm typical	
Output IP3 (inband, two signals, $\Delta f=1\text{MHz}$)@+25°C	+52dBm typical	
Gain flatness	<2dB	
Gain variation	<2dB	
Harmonics	<-80dBc	
Output VSWR	2:1	
Output characteristics @ Low power outputs		
Number of ports	2	
Gain	+5dB typical, fixed	
Output 1dB compression@+25°C	+22dBm typical	
Output IP3 (inband, two signals, $\Delta f=1\text{MHz}$)@+25°C	+38dBm typical	
Gain flatness	<1dB	
Gain variation	<1dB	
Output VSWR	1.4:1	



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Specification	BRRF15 FM Broadcast amplifier	BRRD15 DAB amplifier
Other parameters		
Control and monitoring	via LAN, SNMP Web server	
Connector	DIN41612 type, 42 pins+6 coaxial,	
Digital Inputs	Mute + 2 other data in	
Digital Outputs	Alarm +2 other data out	
Double Colour Status LED on front panel	RED at Alarm, GREEN in normal operation	
Monitoring	Output RF power (reflected and forward) Internal DC voltages, Temperature	
Supply current	1600mA typical @ +12V	
Operating temperature	-20°C ... +60°C	
Dimension	188 x 100 x 60mm (without front cover) 15TE wide module, mountable in 3U high, 19" rack	

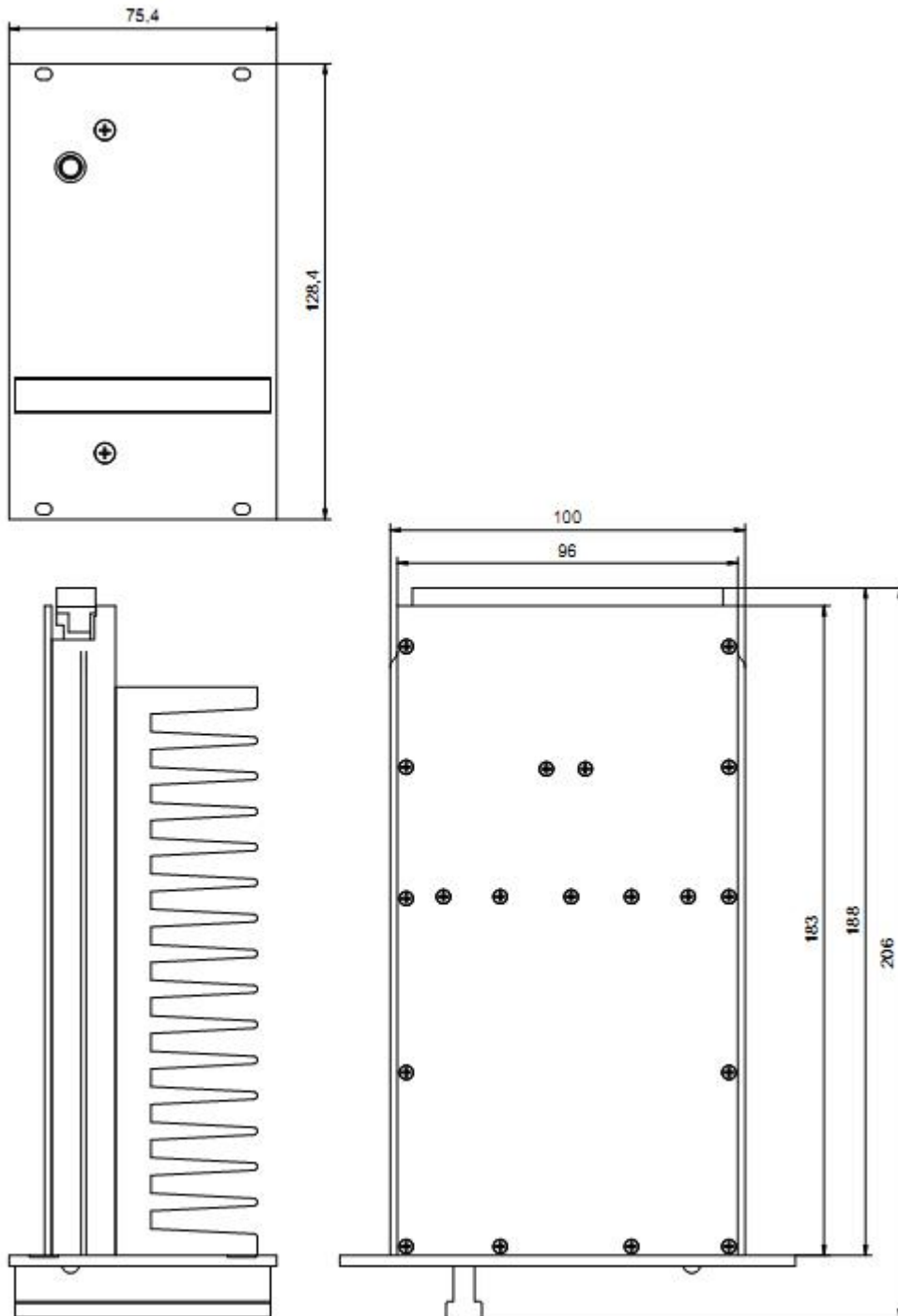
Installation	FM broadcast	DAB
BRRF11 3U high, 19" rack	16 pcs BRRF14 FM repeaters	16 pcs BRRD14 DAB repeaters
BRRF12 3U high, 19" rack	4 pcs BRRF15 FM amplifiers	4pcs BRRD15 DAB amplifiers
BRRF13 3U high, 19" rack	8pcs BRRF14 FM repeaters and 2pcs BRRF15 FM amplifiers	8pcs BRRD14 DAB repeaters and 2pcs BRRD15 DAB amplifiers



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Outline dimensions (mm) BRRF15 & BRRD15: (front, side and top view)

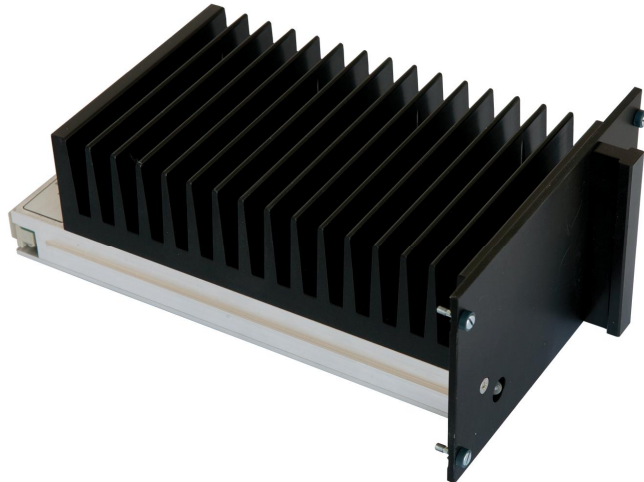




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Picture BRRF15 & BRRD15:



In rack:

