

## MAIN FEATURES

- ❖ Dual frequency band
- ❖ High power amplifier
- ❖ Low distortion
- ❖ Fan cooling
- ❖ Remote control through the RF fiber link

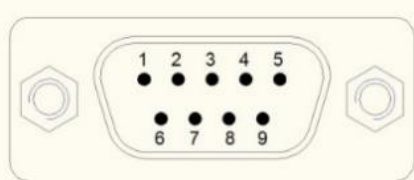
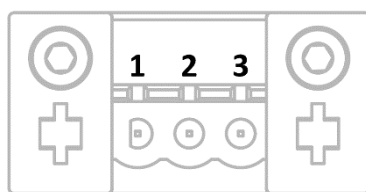


## DESCRIPTION

BRSC10 is an optical slave repeater unit, built with high power amplifier, and it is part of BHE' FM-DAB broadcast solution. It operates as a single unit to amplify FM and DAB frequency bands, when connecting it to a BHE Optical Master Unit using a Single Mode Optical Fiber Link. The BRSC10 can be controlled on the local Ethernet or remotely through the RF Fiberlink. The repeater has an indoor rack-mounted enclosure with a temperature-controlled fan. The unit is used in a fiber optic link environment of repeaters in special places like tunnels or underground stations to increase the reliability and availability of the radio signal retransmission system.

## SPECIFICATIONS

ELECTRICAL PARAMETERS	
Frequency bands	FM: 87.5 – 108 MHz DAB: 174 – 240 MHz
Output VSWR	FM: 3:1 DAB: 1.7:1
Output power, one channel	FM: 40 dBm DAB: 35 dBm @ 35 dB MER
Output power, composite	FM: 29 dBm @ 2 channel, 26 dBm @ 4 channel DAB: 26 dBm @ 2 ensemble, 20 dBm @ 4 ensemble
Output IP3 @ 25 dBm	FM: +62 dBm typical DAB: +56 dBm typical
Nominal gain	45 dB typical
Gain setting range	45 to 14 dB adjustable in 1dB steps
Gain flatness and variation	<3 dB
Harmonics	According to the ETSI regulation
RF_MON attenuation	50 dB typical to main line
Optical module maximum RF input power	+5 dBm
Power supply voltage	2 x 48 VDC
Power consumption	<200 W
MECHANICAL PARAMETERS	
Type of power supply connectors	DFK-MSTB 2,5/3-G; Phoenix
Type of power supply mating connectors	SH03-5.08; Phoenix
Type of optical connector	FC/APC
Type of RF connectors	N – female
Number of RF connectors	4, RF_OUT_FM, RF_MON_FM, RF_OUT_DAB, RF_MON_DAB
Weight	<18 kg
Dimensions	19" 3U (see outline dimensions)

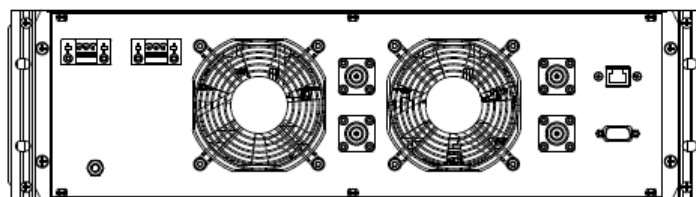
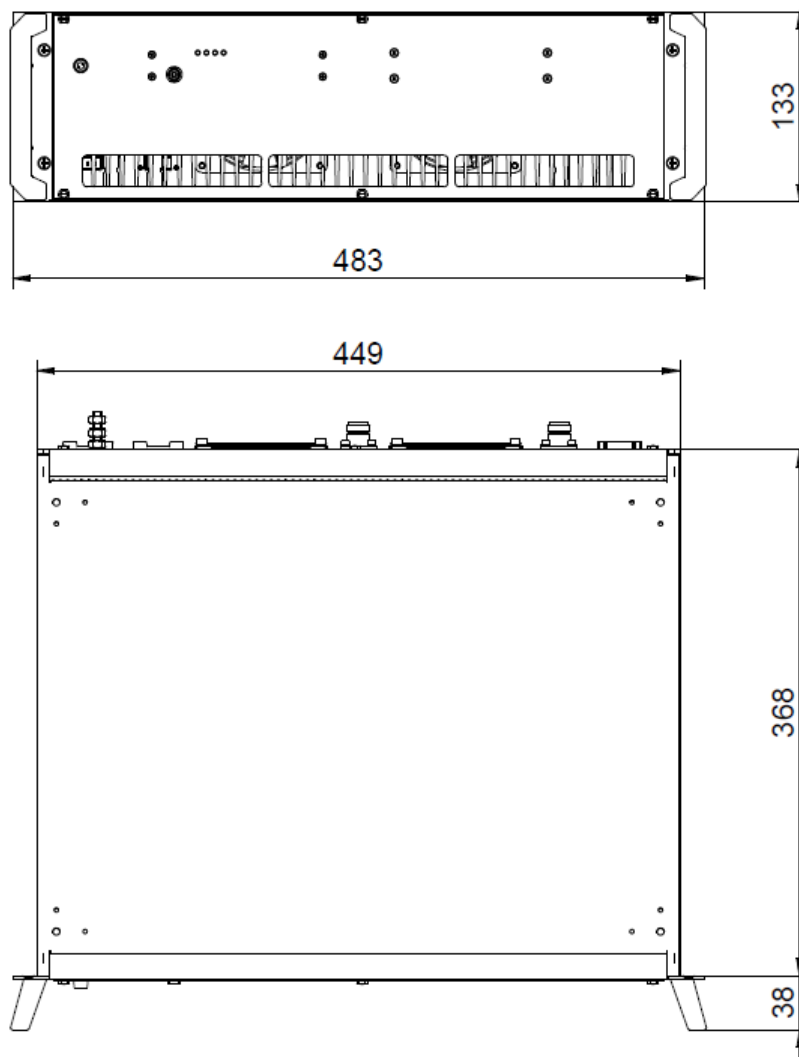
ENVIRONMENTAL PARAMETERS			
Operating temperature range		0 °C ... +45 °C	
Storage temperature range		-30 °C ... +70 °C	
Relative humidity		<75%, non-condensing	
Cooling		Switched forced cooling	
Degree of protection		IP20 Indoor	
SOFTWARE PARAMETERS			
Wired control		Ethernet (SNMP v1 / v2c)	
Alarm I/O		2 external alarm inputs, user configurable sum alarm outputs (dry contact), SNMP notifications, status LED	
Remote control		Through optical fiber via master unit	
EXTERNAL ALARM AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) <sup>(1)</sup>			
Pin no.	Function	Pin no.	Function
1	Dry Contact DAB PAM	6	Ext. Alarm IN 1
2	Dry Contact DAB PAM	7	Dry Contact Center
3	Dry Contact FM PAM	8	Dry Contact Center
4	Dry Contact FM PAM	9	Ext. Alarm IN 2
5	GND	-	-
			
POWER SUPPLY CONNECTOR PINOUT (DFK-MSTB 2,5/3-G) <sup>(2)</sup>			
Pin no.	Function		
1	+48 VDC (+)		
2	N.C.		
3	0 VDC (-)		
			

Specifications are subject to change without notice.

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

(2) DC power supply input isolated from GND.

## OUTLINE DRAWING (mm)



## ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRSC10K10715	BRSC10E1 FM/ DAB Dual Optical high power repeater slave 10W /10W, 1 fiber, 2x48VDC, 19" 3U, FC/APC

## DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRSC10-LM-K10715	V02	2023-09-20