BRSD10
DAB Optical Slave Repeater

MAIN FEATURES

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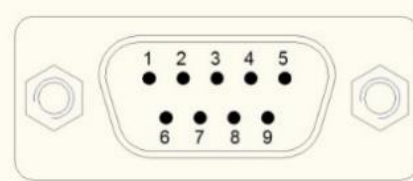❖ Remote control through the RF fiber link

DESCRIPTION

BRSD10 is an optical slave repeater unit, built with high power amplifier, and it is part of BHE's DAB broadcast solution. It operates as a single unit to amplify a certain frequency band, when connecting it to a BHE Optical Master Unit using a Single Mode Optical Fiber Link. The BRSD10 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

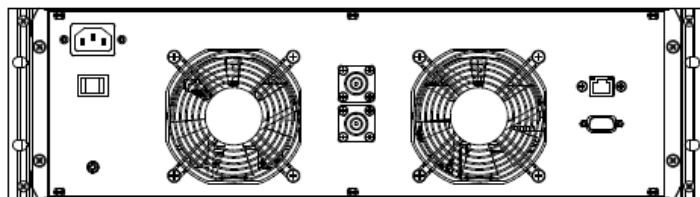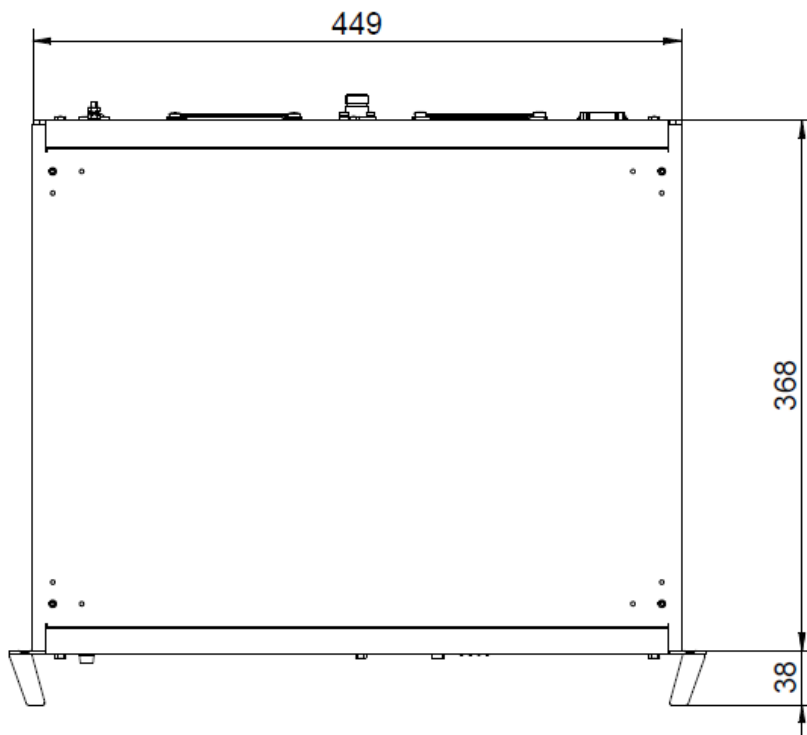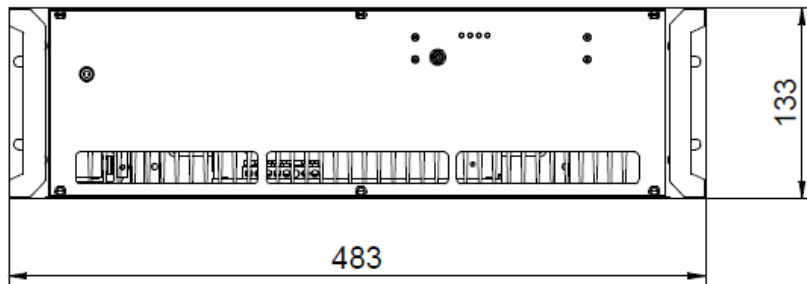| ELECTRICAL PARAMETERS	
Frequency band	174 – 240 MHz
Output VSWR	1.7:1
Output power, one channel	35 dBm @ 35 dB MER
Output power, composite	26 dBm @ 2 ensemble, 20 dBm @ 4 ensemble
Output IP3 @ 25 dBm	+56 dBm typical
Nominal gain	65 dB typical
Gain setting range	65 to 35 dB adjustable in 1dB steps
Gain 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	230 VAC, 50 – 60 Hz
Power consumption	<125 W
MECHANICAL PARAMETERS	
Type of power supply connector	IEC C14 male (Accessory cable IEC C13 with type F plug)
Type of optical connector	FC/APC
Type of RF connectors	N – female
Number of RF connectors	2, RF_OUT, RF_MON
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	4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED
Remote control	Through optical fiber via master unit

EXTERNAL ALARM AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) [1]

Pin no.	Function	Pin no.	Function	
1	N.C.	6	N.C.	
2	Dry Contact	7	Dry Contact	
3	Ext. Alarm IN 1	8	Ext. Alarm IN 2	
4	Ext. Alarm IN 3	9	Ext. Alarm IN 4	
5	Ext. Alarm COMMON	-	-	

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.

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OUTLINE DRAWING (mm)

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRSD10K11065	BRSD10, 10W, 174-240 MHz, 230 VAC, 19" 3U, 2x N fem, FC/APC, SNMPv3, DAB macro slave repeater

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRSD10-LM-K11065	V02	2023-09-20