BRSD11E1
Dual DAB Optical Slave Repeater

MAIN FEATURES

- Two independent fiber fed amplifiers
- Single frequency band
- High power amplifiers
- Low distortion
- Fan cooling
- Remote control through the RF fiber link

DESCRIPTION

BRSD11E1 is an optical slave repeater unit, built with high power amplifiers, 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 BRSD11 can be controlled via the local Ethernet or remotely via one of the two RF Fiber links. 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	28 dBm @ 2 ensemble, 22 dBm @ 4 ensemble
Output IP3 @ 25 dBm	+59 dBm typical
Nominal gain	58 dB typical
Gain setting range	58 to 28 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	Dual 48 VDC
Power consumption	<180 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, BNC - female
Number of RF connectors	4, 2 RF_OUT, 2 RF_MON
Weight	<18 kg
Dimensions	19” 3U (see outline dimensions)

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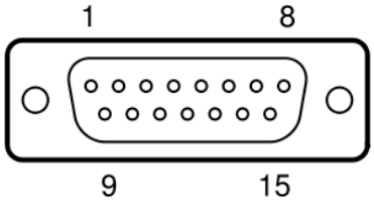
ENVIRONMENTAL PARAMETERS	
Operating temperature range	0 °C ... +45 °C
Storage temperature range	-30 °C ... +70 °C
Relative humidity	<75%, non-condensing
Cooling	Switched forced cooling
Degree of protection	IP20 Indoor
SOFTWARE PARAMETERS	
Wired control	Ethernet (SNMP v1 / v2c)
Alarm I/O	4 external alarm 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)

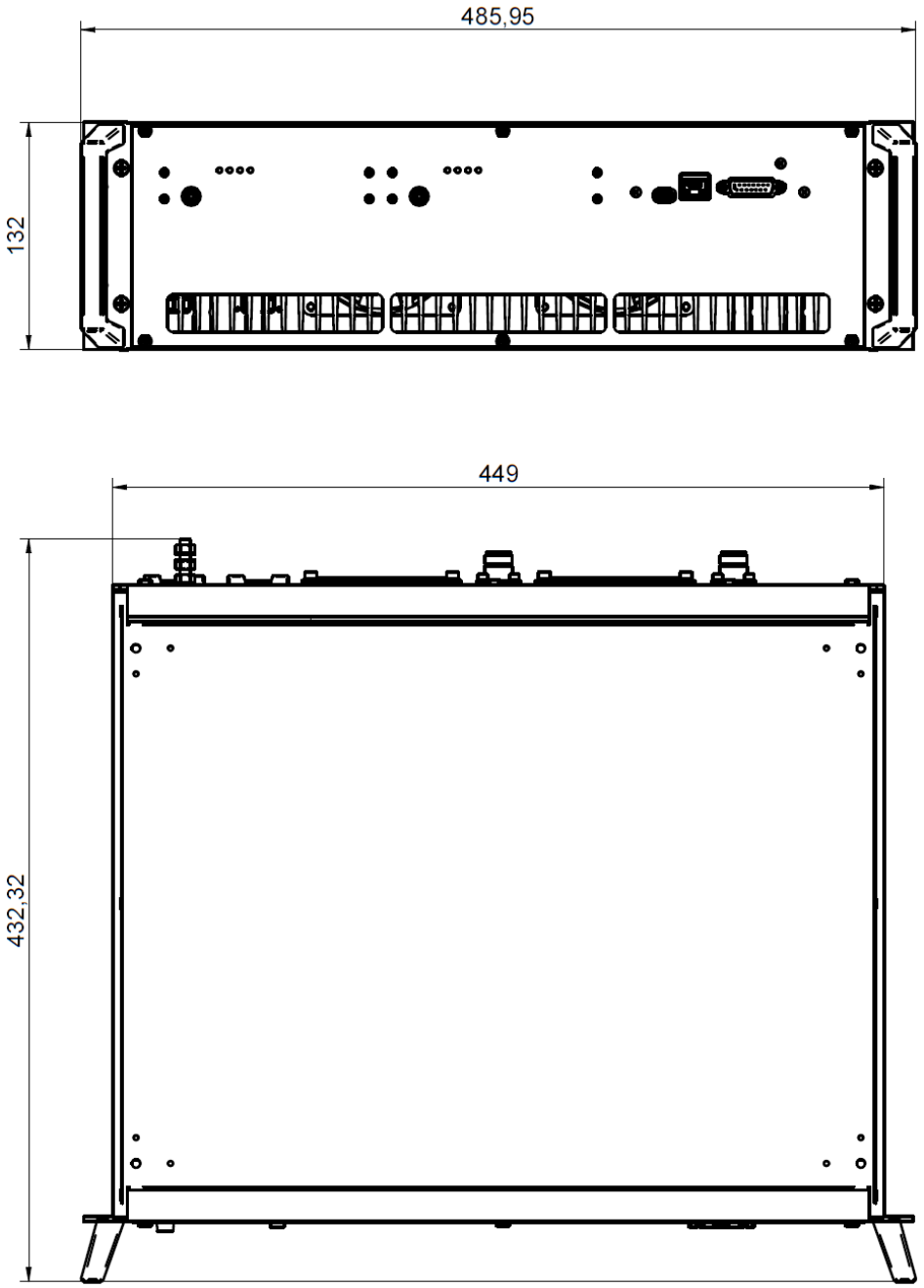
Pin no.	Function	Pin no.	Function
1	GND ISO	9	Reserved OUT
2	Dry Contact 1 OUT	10	Reserved OUT
3	Dry Contact 1 OUT	11	GND ISO
4	Reserved IN	12	Reserved IN
5	Reserved IN	13	Reserved IN
6	Ext. Alarm IN 4	14	Ext. Alarm IN 3
7	Ext. Alarm IN 2	15	Ext. Alarm IN 1
8	GND ISO	-	-



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
BRSD11K11440	BRSD11, 5-WDM, 2x S1, 174-240 MHz, Dual DAB 10W/10W macro slave repeater, 2x N female, 2x BNC female, 19" 3U, 2x48VDC Dual DC Connector, FC/APC, SNMPv2c

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRSD11-LM-K11440	V01	2024-07-09