BRTF32
400 MHz TETRA Optical Macro Slave Repeater

MAIN FEATURES

- Extended TETRA bandwidth (6,5 MHz)
- High sensitivity
- High dynamic range
- 4 W composite RF output power
- Optional uplink muting
- Wavelength division multiplexing technique
- SNMP support

DESCRIPTION

This repeater is intended to be used for TETRA indoor optical fibre systems. It is a compact and reliable unit, and it is especially advantageous to use it in areas where off-air transmission is not preferable. The base station side optical master unit can control and monitor the slave unit on the remote repeater side through the optical fibre. This very economical solution can be installed easily, and the repeater can be monitored and controlled using the provided remote-control software.

SPECIFICATIONS

ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 396.5 MHz
	Uplink: 380 – 386.5 MHz
Operating frequency bandwidth	6.5 MHz
Mode of operation	Band selective duplex
Linear output power	Downlink: +36 dBm or 2 x +33 dBm (2 carriers), meets ETSI regulation
ICP3	Downlink: +68 dBm minimum @ 2 x 33 dBm
ACPR	60 dB @ linear output power
Nominal gain	65 dB
Gain setting range	65 to 40 dB adjustable in 1 dB steps
Gain ripple	<±1.5 dB typical
Gain stability	<±1.5 dB (within operating temperature range)
Uplink input noise figure	<6 dB @ maximum gain
Harmonics	According to ETSI regulation
Spurious radiation	According to ETSI regulation
EVM	<1% typical (ETSI regulation <10%)
Optical module maximum RF input power	+5 dBm
Power supply voltage	230 VAC, 50 – 60 Hz
Power consumption	<100 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 connector	N – female
Weight	<20 kg
Dimension	19” 3U (see outline dimensions)

BHE
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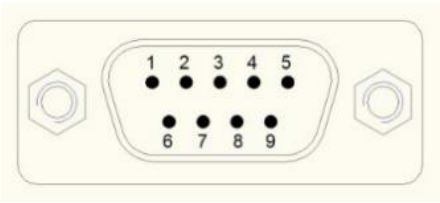
ENVIRONMENTAL PARAMETERS	
Operating temperature range	0 °C ... +45 °C
Storage temperature range	-30 °C ... +70 °C
Relative humidity	<75%, non-condensing
Cooling	Switched forced cooling
Degree of protection	IP20 Indoor
SOFTWARE PARAMETERS	
Wired control	Ethernet (SNMP v1 / v2c)
Alarm I/O	4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED
Remote control	Through optical fibre via master unit

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

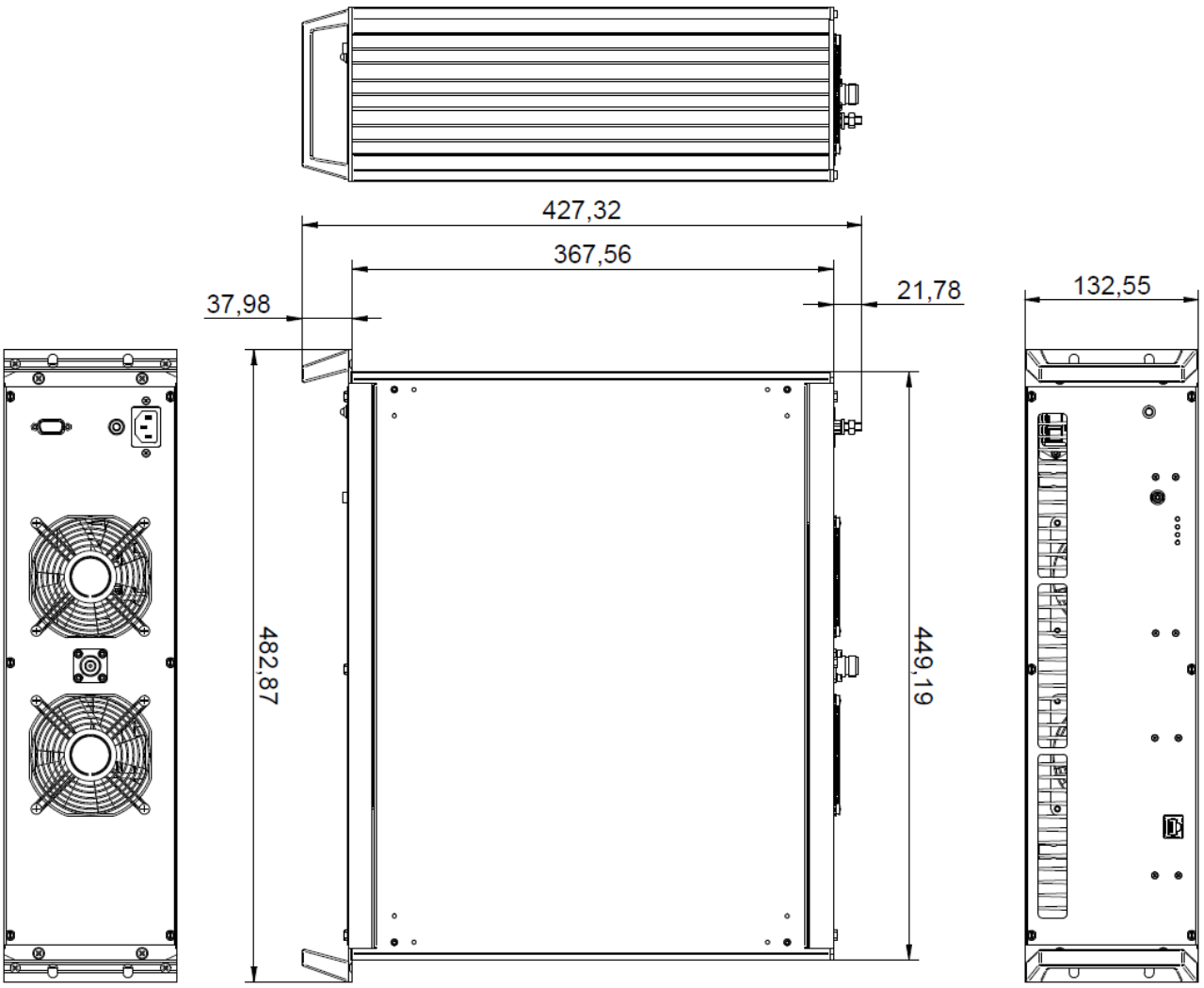
Pin no.	Function	Pin no.	Function
1	Ext. Alarm IN 1	6	Ext. Alarm COMMON
2	Ext. Alarm IN 2	7	Dry Contact
3	N.C.	8	Ext. Alarm IN 3
4	Dry Contact	9	Ext. Alarm IN 4
5	Ext. Alarm COMMON	-	-



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.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	FREQUENCY BAND
BRTF32K11004	380.0-386.5 MHz / 390.0-396.5 MHz
BRTF32K11284	440-441 MHz / 445-446 MHz

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTF32	V01	2023-03-30

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