BRTL38
400 MHz Band Selective TETRA Macro Repeater

MAIN FEATURES



- High sensitivity
- High dynamic range
- Low power consumption
- SNMP support

DESCRIPTION

This repeater is intended to be used in 400 MHz indoor TETRA systems. It is a compact and reliable unit which can be effectively used to cover areas that cannot be economically covered by base stations. It is a very economical solution which can be easily installed and can be monitored and controlled locally and remotely via the provided control software.

SPECIFICATIONS

ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 395 MHz
	Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Band selective duplex
Linear output power	Downlink: +36 dBm or 2 x 33 dBm (2 carriers) meets ETSI regulation
	Uplink: +24 dBm or 2 x 21 dBm (2 carriers) meets ETSI regulation
ICP3	Downlink: +68 dBm minimum @ 2 x 33 dBm
	Uplink: +51 dBm minimum @ 2 x 21 dBm
ACPR	60 dB @ linear output power
Nominal gain	90 dB
Gain setting range	90 to 60 dB adjustable in 1 dB steps
Gain ripple	<±1.5 dB typical
Gain stability	<±1.5 dB (within operating temp. range)
Uplink input noise figure	<6 dB @ maximum gain
Harmonics	According to ETSI regulation
Spurious radiation	According to ETSI regulation
Local leakage	According to ETSI regulation
EVM	<1% typ. (ETSI regulation <10%)
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 RF connectors	N – female
Number of RF connectors	2, MOBILE, DONOR
Weight	<22 kg
Dimension	19” 3U (see outline dimensions)

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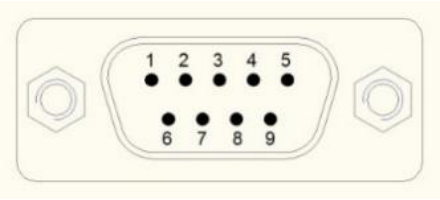
ENVIRONMENTAL PARAMETERS	
Operating temperature range	0 °C ... +45 °C
Storage temperature range	-30 °C ... +70 °C
Relative humidity	<75%, non-condensing
Cooling	Switched forced cooling
Degree of protection	IP20 Indoor
SOFTWARE PARAMETERS	
Wired control	Ethernet (SNMP v1 / v2c)
Alarm I/O	4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED
Wireless control (optional)	2G / 4G modem

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

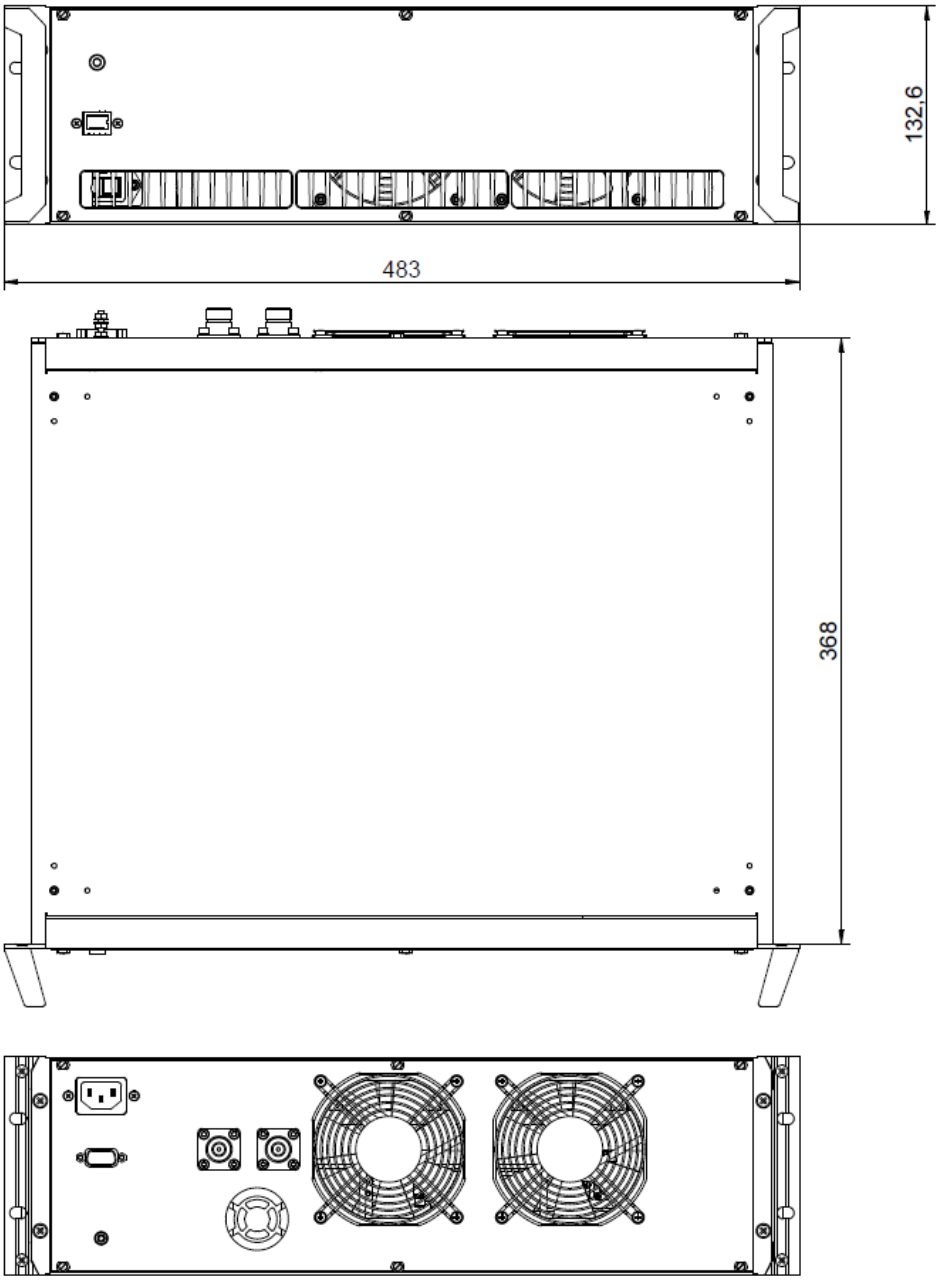
Pin no.	Function	Pin no.	Function
1	Ext. Alarm IN 1	6	Ext. Alarm COMMON
2	Ext. Alarm IN 2	7	Dry Contact
3	N.C.	8	Ext. Alarm IN 3
4	Dry Contact	9	Ext. Alarm IN 4
5	Ext. Alarm COMMON	-	-



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	POWER SUPPLY
BRTL38K10146	380-385 MHz / 390-395 MHz	230 VAC
BRTL38K10703	380-385 MHz / 390-395 MHz	2 x 48 VDC
BRTL38K11239	415-420 MHz / 405-410 MHz	230 VAC

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTL38	V01	2026-10-26