

MAIN FEATURES

- ❖ High sensitivity
- ❖ High dynamic range
- ❖ Optional uplink muting
- ❖ Compact size
- ❖ Optional 2G/4G remote control



DESCRIPTION

This repeater is intended to be used in 400 MHz 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.

In order to reduce noise impact on the base station side, uplink muting functionality is available upon customer request.

SPECIFICATIONS

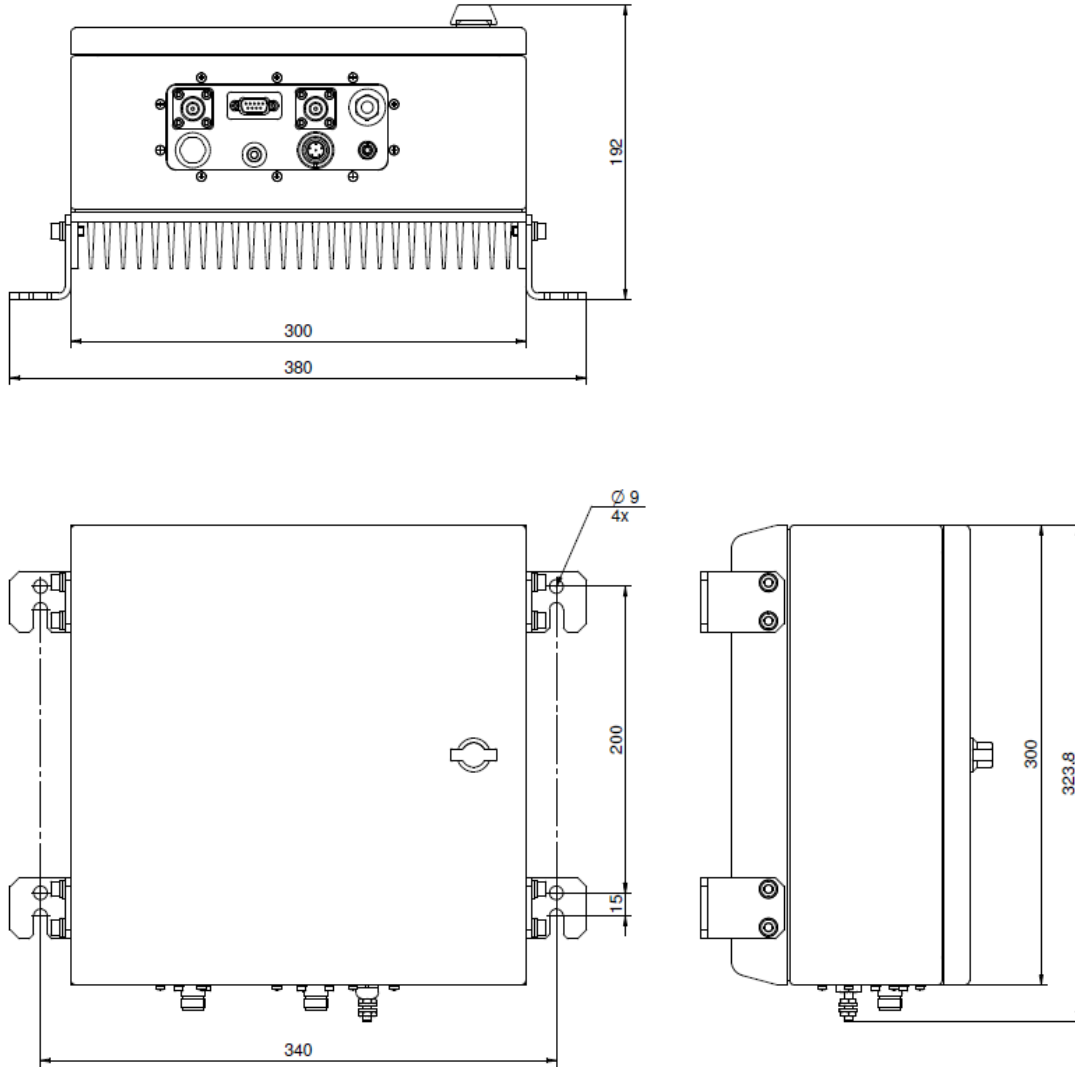
ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 395 MHz Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Band selective duplex
Linear output power	Downlink: +22 dBm or 2 x 19 dBm (2 carriers) meets ETSI regulation Uplink: +22 dBm or 2 x 19 dBm (2 carriers) meets ETSI regulation
ICP3	Downlink: +49 dBm minimum @ 2 x 19 dBm Uplink: +49 dBm minimum @ 2 x 19 dBm
ACPR	60 dB @ linear output power
Nominal gain	70 dB
Gain setting range	70 to 40 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	100 – 240 VAC, 50 – 60 Hz
Power consumption	<60 W

MECHANICAL PARAMETERS				
Type of power supply plug	Type F plug			
Type of RF connectors	N – female			
Number of RF connectors	2, MOBILE, DONOR			
Weight	<15 kg			
Dimension	300 x 300 x 192 mm (see outline dimensions)			
ENVIRONMENTAL PARAMETERS				
Operating temperature range	0 °C ... +45 °C			
Storage temperature range	-30 °C ... +70 °C			
Cooling	Convection			
Degree of protection	IP65 Outdoor			
SOFTWARE PARAMETERS				
Wired control	RS-232			
Alarm I/O	4 external alarm inputs, user configurable sum alarm output (dry contact), status LED			
Wireless control (optional)	2G / 4G modem			
LOCAL CONTROL (RS-232) AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) ⁽¹⁾				
Pin no.	Function	Pin no.	Function	
1	N.C.	6	N.C.	
2	RX Data	7	Dry Contact	
3	TX Data	8	N.C.	
4	Dry Contact	9	N.C.	
5	GND	-	-	
EXTERNAL ALARM CONNECTOR PINOUT (BULGIN PX0412/06S)				
Pin no.	Function			
1	External Alarm IN 2			
2	External Alarm IN 3			
3	External Alarm IN 4			
4	N.C.			
5	External Alarm IN 1			
6	External 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	MODEM	GSM PORT	UL-MUTING
BRTM24K10570	380-385 MHz / 390-395 MHz	✓		
BRTM24K10679	380-385 MHz / 390-395 MHz	✓		✓
BRTM24K11060	450-455 MHz / 460-465 MHz			
BRTM24K11125	380-385 MHz / 390-395 MHz	✓	✓	✓

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTM24	V01	2023-03-30