

## MAIN FEATURES

- ❖ Extended TETRA bandwidth (6,5 MHz)
- ❖ Digital filter technology (SDR)
- ❖ Flexible filter selection
- ❖ Frequency shift function
- ❖ High dynamic range
- ❖ High sensitivity
- ❖ Uplink muting
- ❖ SNMP support



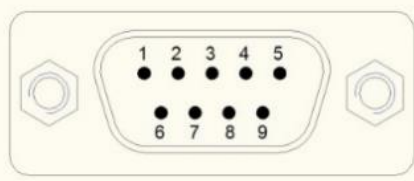
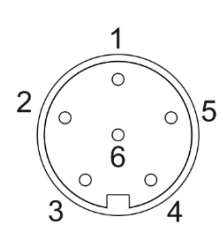
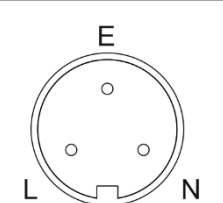
## DESCRIPTION

This repeater is intended to be used in 400 MHz TETRA systems. Based on the latest digital filter technology this model offers freedom for the users to select the best possible filter characteristics for the actual application type. It has perfect EVM parameters of <1% and low power consumption figures.

Supplied in a compact wall mount box, this repeater is an ideal choice to be used in areas where flexible filter selection is essential for smooth operation and/or network design. 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

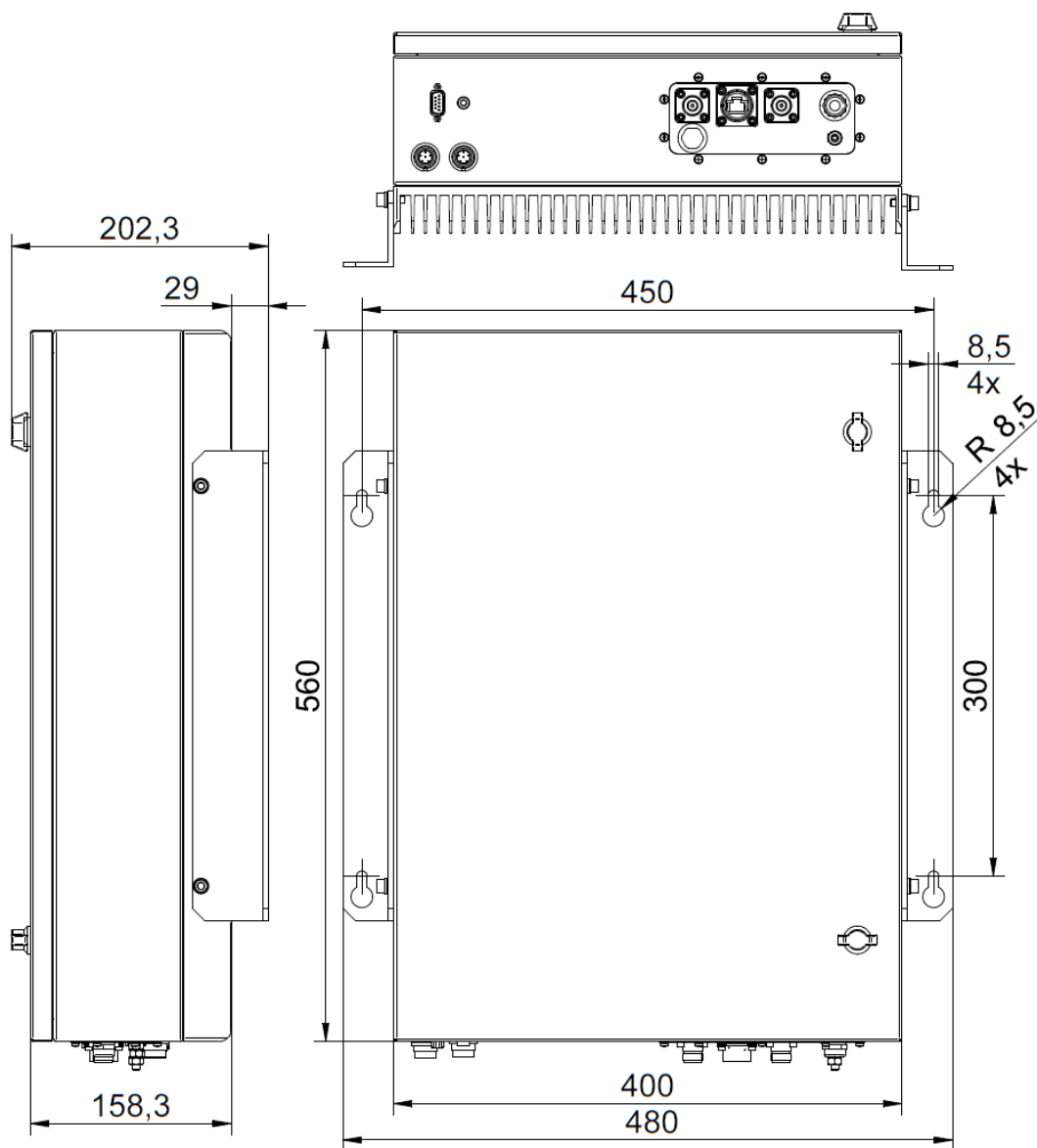
ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390.0 – 396.5 MHz Uplink: 380.0 – 386.5 MHz
Operating frequency bandwidth	6.5 MHz
Mode of operation	Channel (up to 8) or band selective duplex (with different filters)
Linear output power	Downlink: +36 dBm or 2 x 33 dBm (2 carriers) meets ETSI regulation Uplink: +36 dBm or 2 x 33 dBm (2 carriers) meets ETSI regulation
ICP3	Downlink: +68 dBm minimum @ 2 x 33 dBm Uplink: +68 dBm minimum @ 2 x 33 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 temperature range)
Uplink input noise figure	<6 dB @ maximum gain
Configurable Uplink Muting	Adjustable input signal threshold for activation
Harmonics	According to ETSI regulation
Spurious Radiation	According to ETSI regulation
Local Leakage	According to ETSI regulation
EVM	<1% typical (ETSI regulation <10%)
Power supply voltage	230 VAC, 50 – 60 Hz
Power consumption	<110 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		<35 kg		
Dimensions		400 x 560 x 158 mm (see outline dimensions)		
ENVIRONMENTAL PARAMETERS				
Operating temperature range		0 °C ... +45 °C		
Storage temperature range		-30 °C ... +70 °C		
Cooling		Convection and optional switched forced cooling		
Degree of protection		IP65 Outdoor		
SOFTWARE PARAMETERS				
Wired control		Ethernet (SNMP v1 / v2c), RS-232		
Alarm I/O		4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED, SMS messages, error log with real time clock		
Wireless control		2G / 4G modem		
LOCAL CONTROL (RS-232) AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) <sup>(1)</sup>				
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			
FAN CONNECTOR PINOUT (BULGIN PX0412/03S)				
Pin no.	Function			
E	N.C.			
L	+27 VDC (+)			
N	0 VDC (-)			

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
BRTL47K11085	BRTL47 36 dBm, 380-386,5 MHz / 390-396,5 MHz, G 90 dB, 230 VAC, 8CH & Uniband, RS-232, SNMPv2c, 2G/4G Modem, Error Log, RTC, Spectr. Anal., Auto SHDN, Indep. CH Gain, 2x N-female combined port, wall mount, HS 40 mm

## DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTL47-LM-K11085	V05	2024-04-05