

MAIN FEATURES

- ❖ Digital filter technology (SDR)
- ❖ Flexible filter selection
- ❖ Frequency shift function
- ❖ High dynamic range
- ❖ High sensitivity
- ❖ Uplink muting
- ❖ SNMP support
- ❖ Compact size



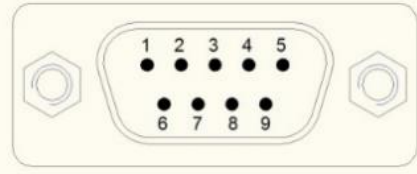
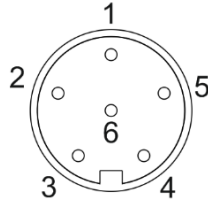
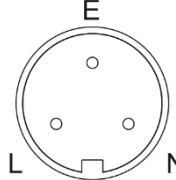
DESCRIPTION

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

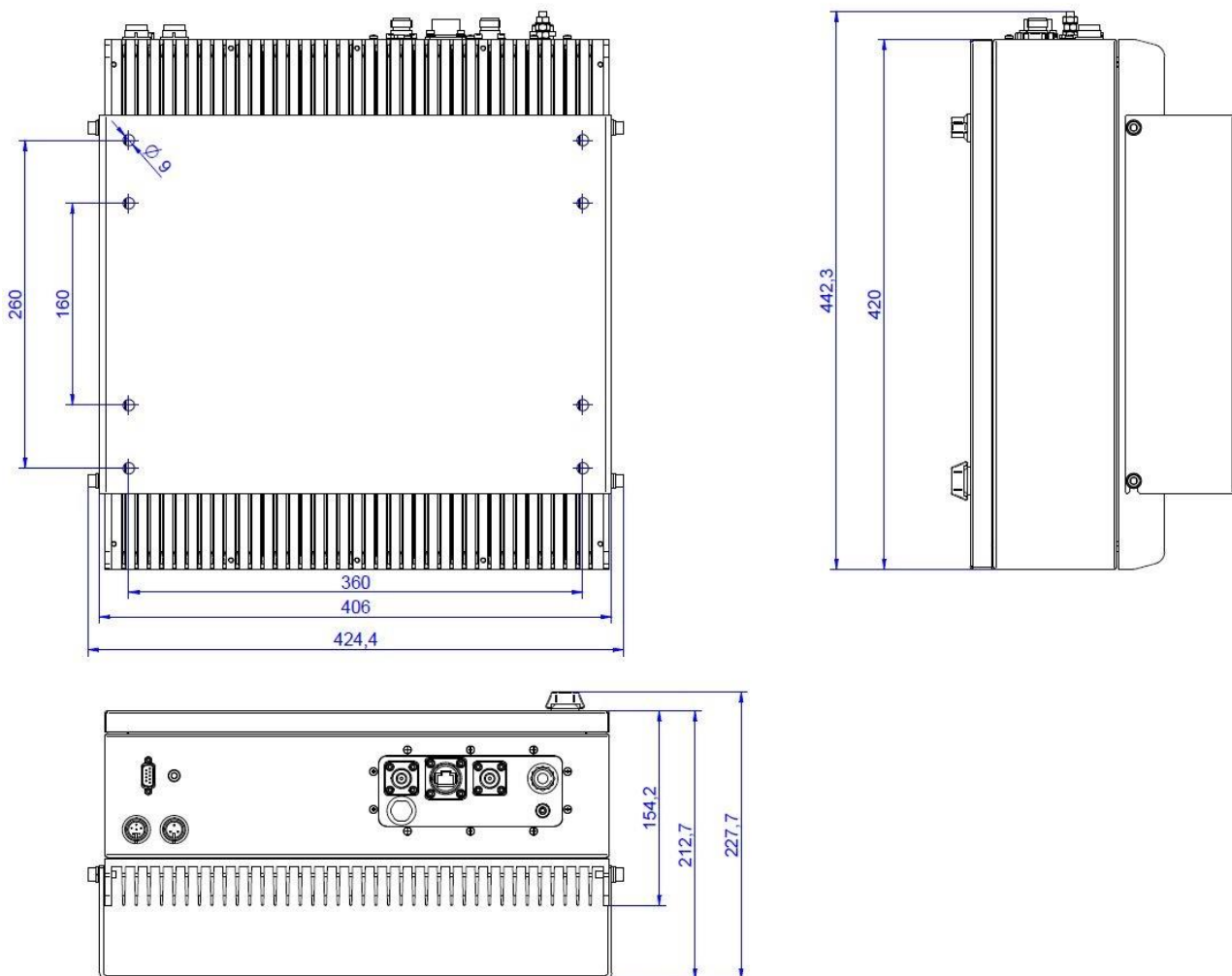
ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 395 MHz Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Channel (up to 8) or band selective duplex (with different filters)
Linear output power	Downlink: +36 dBm or 2 x 33 dBm (2 carriers) meets ETSI regulation Uplink: +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 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% typ. (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		<24 kg		
Dimension		400 x 420 x 155 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)		
Alarm I/O		4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED		
Wireless control (optional)		2G / 4G modem		
SUM ALARM CONNECTOR PINOUT (D-SUB MALE) ⁽¹⁾				
Pin no.	Function	Pin no.	Function	
1	N.C.	6	N.C.	
2	D.N.C.	7	Dry Contact	
3	D.N.C.	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	FREQUENCY BAND	POWER SUPPLY	RF PORT	MODEM	LOCAL CONTROL
BRTL42K11173	380-385 MHz / 390-395 MHz	230 VAC	4.3-10 – female	✓	Ethernet
BRTL42K11181	380-385 MHz / 390-395 MHz	230 VAC	N – female	✓	Ethernet + RS-232
BRTL42K11229	410-415 MHz / 420-425 MHz	48 VDC	N – female		Ethernet + RS-232
BRTL42K11329	415-420 MHz / 425-430 MHz	230 VAC	N – female	✓	

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTL42	V01	2023-05-02