

MAIN FEATURES

- ❖ High sensitivity
- ❖ High dynamic range
- ❖ Wavelength division multiplexing technique
- ❖ Compact size



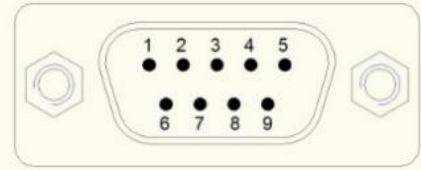
DESCRIPTION

This repeater is intended to be used for TETRA 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 – 395 MHz Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Band selective duplex
Linear output power	Downlink: +24 dBm or 2 x +21 dBm (2 carriers), meets ETSI regulation
ICP3	Downlink: +51 dBm minimum @ 2 x 21 dBm
ACPR	60 dB @ linear output power
Nominal gain	50 dB
Gain setting range	50 to 25 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	100 – 240 VAC, 50 – 60 Hz
Power consumption	<50 W
MECHANICAL PARAMETERS	
Type of power supply plug	Type F plug
Type of optical connector	LC/UPC (in waterproof housing)
Type of RF connector	N – female
Weight	<12 kg
Dimension	300 x 300 x 192 mm (see outline dimensions)

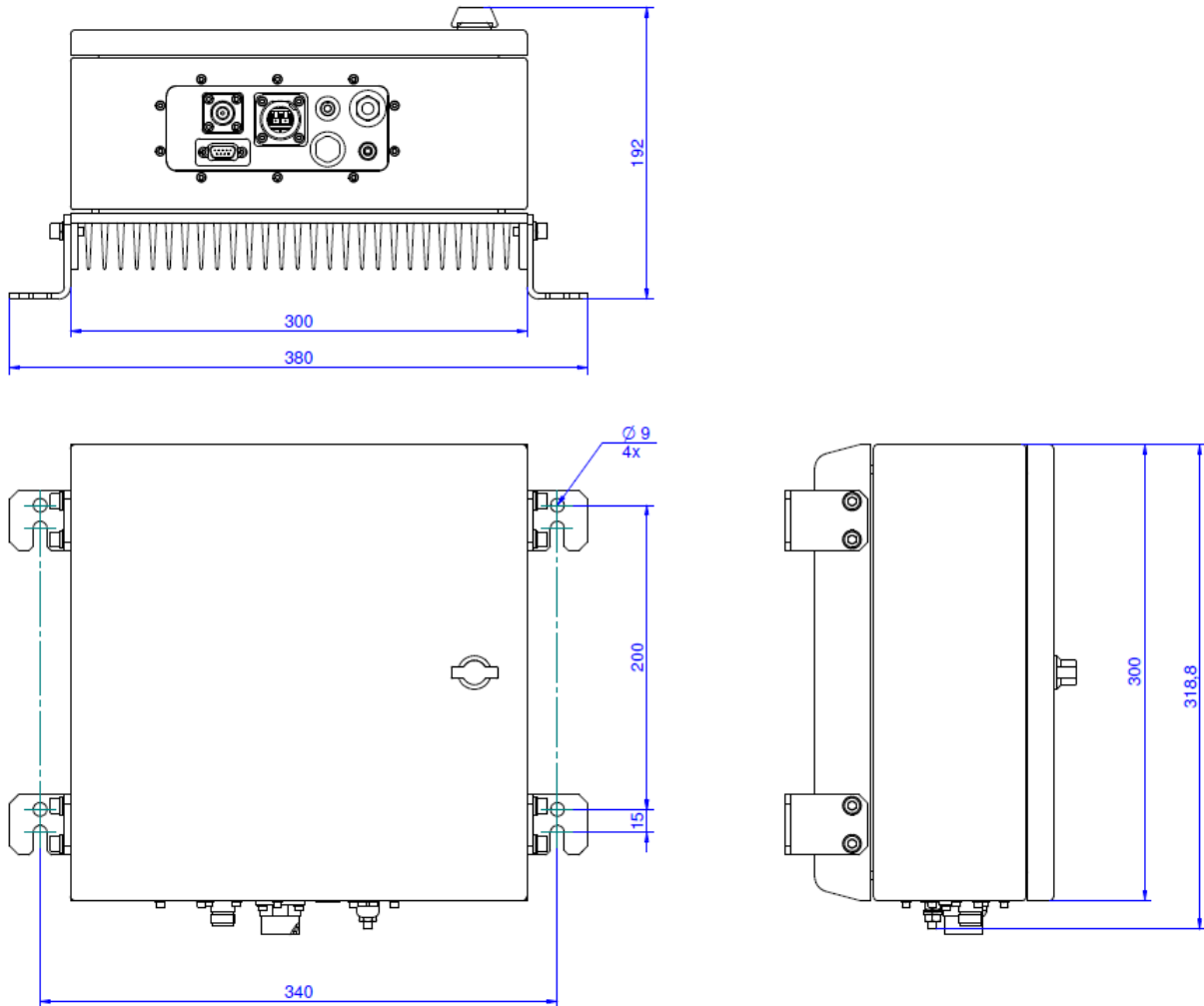
ENVIRONMENTAL PARAMETERS			
Operating temperature range		0 °C ... +45 °C	
Storage temperature range		-30 °C ... +70 °C	
Cooling		Convection	
Degree of protection		IP65 Outdoor	
SOFTWARE PARAMETERS			
Wired control		RS-232	
Alarm I/O		User configurable sum alarm output (dry contact), status LED	
Remote control		Through optical fibre via master unit	
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	-	-



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
BRTF23K00276	380-385 MHz / 390-395 MHz
BRTF23K10550	410-415 MHz / 420-425 MHz
BRTF23K10580	415-420 MHz / 425-430 MHz
BRTF23K10624	430-435 MHz / 440-445 MHz

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTF23	V01	2023-03-30