

MAIN FEATURES

- ❖ High sensitivity
- ❖ High dynamic range
- ❖ Optional uplink muting
- ❖ Wavelength division multiplex technique
- ❖ Redundant optical connections
- ❖ SNMP support

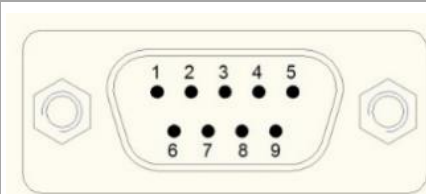
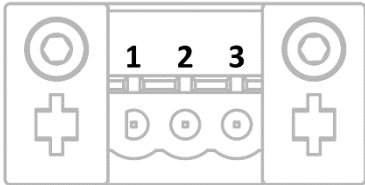


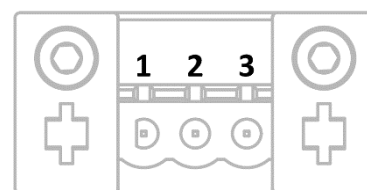
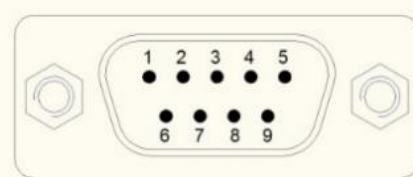
DESCRIPTION

This repeater is intended to be used for TETRA indoor 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. In order to provide redundancy, the slave has two independent optical connectors, and it can automatically switch between optical links, if it senses that one link is better than the other, based on user-defined conditions. 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	48 VDC
Power consumption	<80 W
MECHANICAL PARAMETERS	
Type of power supply connector	DFK-MSTB 2,5/3-G; Phoenix
Type of power supply mating connector	SH03-5.08
Type of optical connectors	FC/APC
Type of RF connector	N – female
Weight	<15 kg

Dimensions	19" 3U (see outline dimensions)			
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			
Remote control	Through optical fibre via master unit			
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	-	-	
POWER SUPPLY CONNECTOR PINOUT (DFK-MSTB 2,5/3-G) ⁽²⁾				
Pin no.	Function			
1	+48 VDC (+)			
2	N.C.			
3	0 VDC (-)			

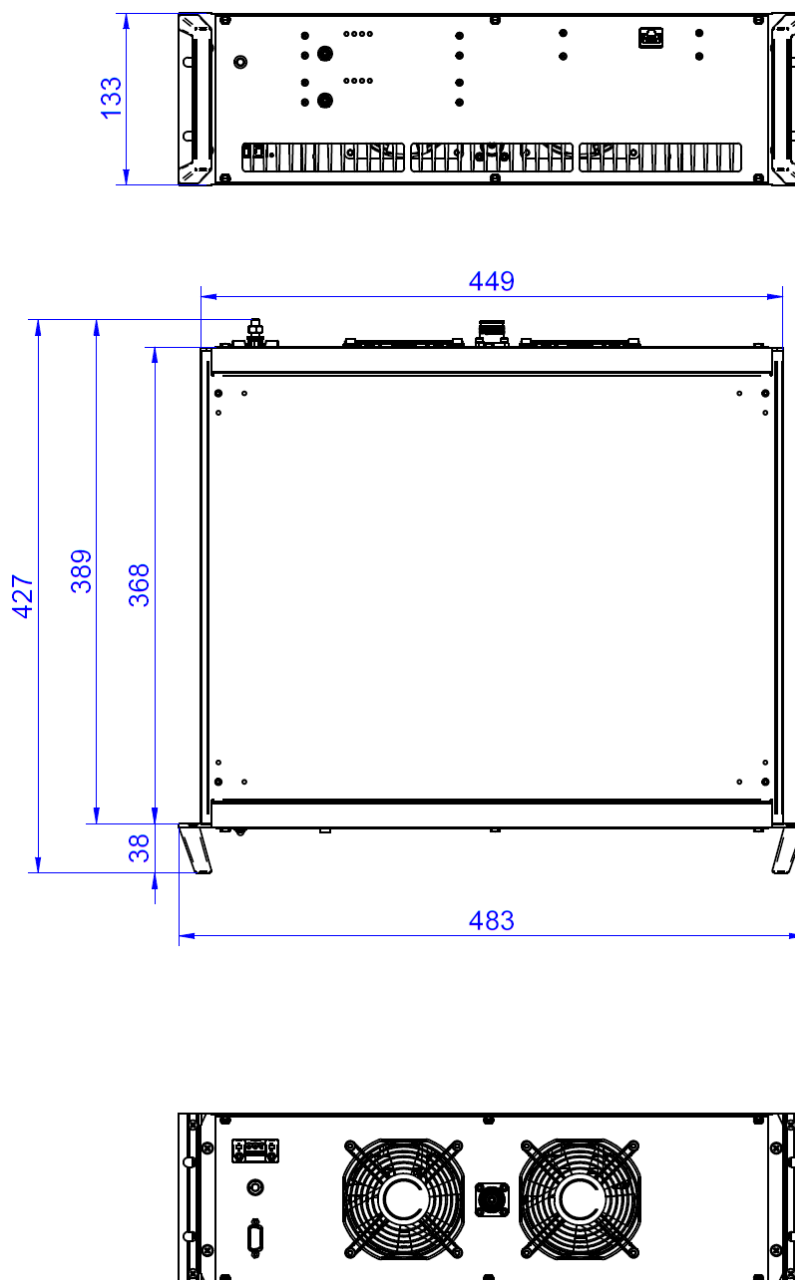


Specifications are subject to change without notice.

(1) In POWERED OFF state the relay will be open. The operation of the Dry Contact relay is configurable by the user.

(2) DC power supply inputs isolated from GND.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRTF47K11403	BRTF47, 24dBm, S1-S2, 380-385 MHz / 390-395 MHz, G 50dB, N-female, FC/APC, 48 VDC, 19" 3U, SNMPv2c

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTF47-LM-K11403	V01	2023-10-23