

MAIN FEATURES

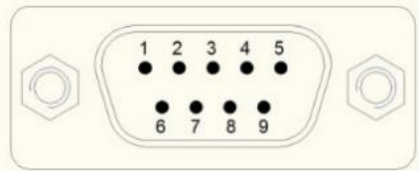
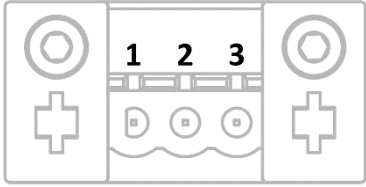
- ❖ High sensitivity
- ❖ High dynamic range
- ❖ Wavelength division multiplex technique
- ❖ 4W composite RF output power per band
- ❖ 19" rack mounted
- ❖ Optional Uplink muting

DESCRIPTION

This repeater is intended to be used for TETRA and LTE dual band 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. This very economical solution can be installed easily, and the repeater can be monitored and controlled using the provided remote-control software.

SPECIFICATIONS

RF PARAMETERS		
Frequency band	Downlink:	420.0 - 425.0 MHz
		462.5 - 467.5 MHz
	Uplink:	410.0 - 415.0 MHz
		452.5 - 457.5 MHz
Operating frequency bandwidth per band	5 MHz	
Mode of operation	Band selective duplex	
Linear output power per band	Downlink: +36 dBm or 2 x +33 dBm (2 carriers), meets ETSI regulation	
ICP3	Downlink: +68 dBm minimum @ 2 x 33 dBm	
ACPR	According to the ETSI regulation 60 dB @ linear output power	
Nominal gain	65 dB	
Gain setting range	65 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	<4 dB typ. @ max. gain	
ALC range	45 dB minimum	
Harmonics	According to the ETSI regulation	
Spurious radiation	According to the ETSI regulation	
EVM	According to the ETSI regulation <1% typical (ETSI regulation <10%)	
Optical module maximum RF input power	+5 dBm	
Power supply voltage	48 VDC	
Power consumption	<120 W	
MECHANICAL PARAMETERS		
Type of power supply connector	DFK-MSTB2,5/3-G; Phoenix	
Type of power supply mating connector	SH03-5.08	

Type of optical connector	FC/APC		
Type of RF connector	4.3-10 – female		
Number of RF connector	1, Combined MOBILE Antenna port		
Weight	<35 kg		
Dimension	19" 6U (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 with master unit		
EXTERNAL ALARM AND SUM ALARM CONNECTOR PIN OUT (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-MSTB2,5/3-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.

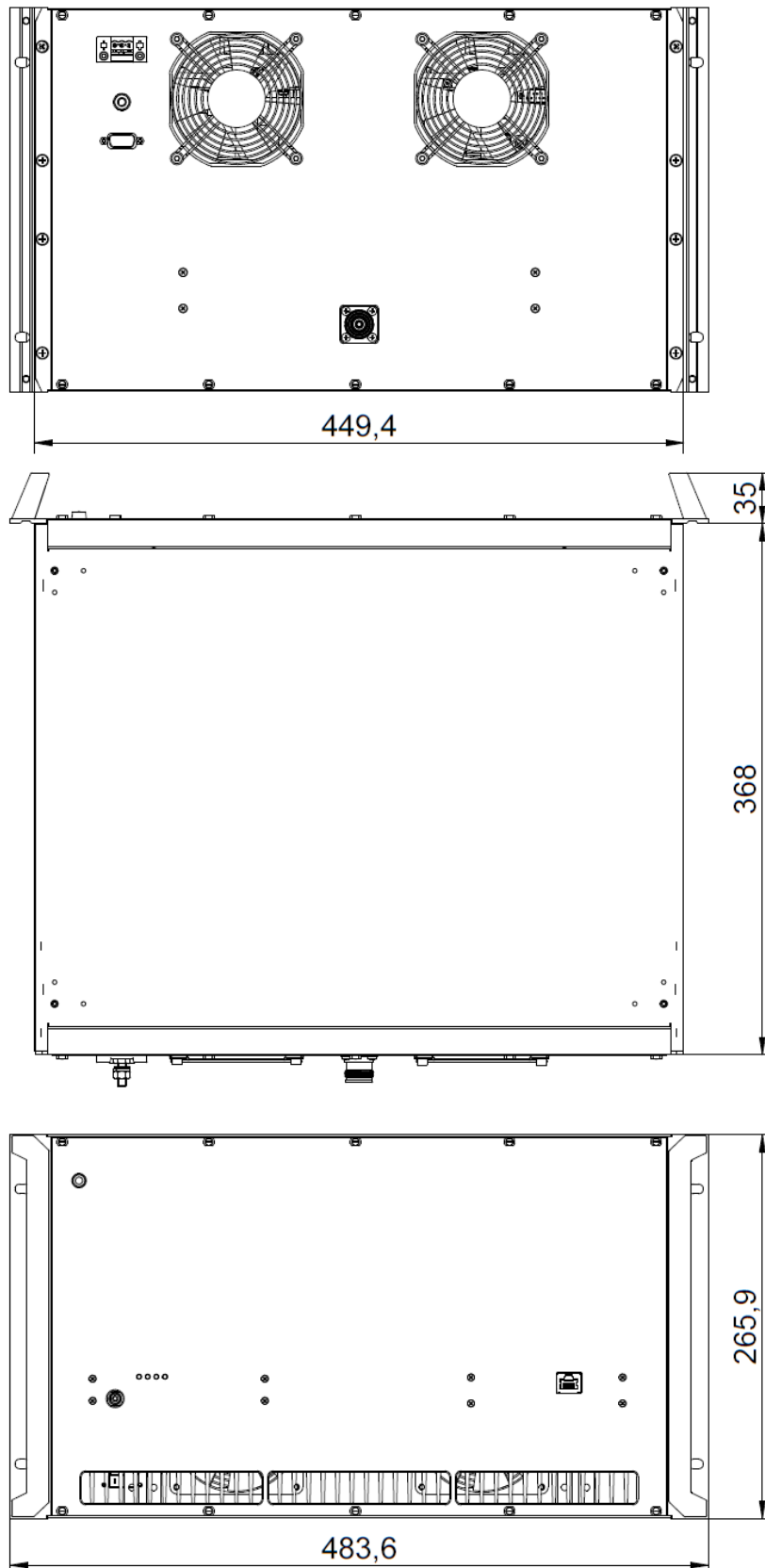
(2) DC power supply input isolated from GND.



BRDF28

400 MHz Dual Band TETRA/LTE Optical Macro Slave Repeater

OUTLINE DRAWING (mm)





BRDF28 400 MHz Dual Band TETRA/LTE Optical Macro Slave Repeater

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRDF28K11331	BRDF28, 2x36 dBm, S1, UL: 410.0-415.0 & 452.5-457.5 MHz / DL: 420.0-425.0 & 462.5-467.5 MHz, G65 dB, Combined RF port, 1x 4.3-10 female, FC/APC, 19" 6U, 48 VDC, SNMPv2c

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRDF28-LM-K11331	V04	2023-05-08