

400 MHz Dual Band TETRA/LTE Optical Master Repeater

MAIN FEATURES

- **Dualband** operation
- * Star or daisy chain configuration
- Supports up to 32 slaves with external optical splitters
- 5-Wave WDM technology
- Automatic optical power control
- * Remote supervision of slave units
- Supports both mini and macro slaves
- SNMP support



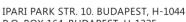
DESCRIPTION

This TETRA master repeater is intended to be used to convert signals from RF to optical (and vice versa) and supply the remote optical slave repeaters. Typical applications are long tunnel sections, in-building systems, large area outdoor coverage and long-distance feed areas where the cost of the traditional RF cable is more expensive than the economical optical fiber solutions.

Using WDM (Wavelength Division Multiplexing) technology the uplink and downlink signals are transmitted on the same optical cable. The same optical cable is used for remote supervision and control, providing a reliable communication link. The master unit can be monitored and controlled via its Ethernet connector using SNMP protocol or via the optional 2G/4G modem. All connected slave units can be remotely supervised through the optical connection.

SPECIFICATIONS

ELECTRICAL 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	5 MHz			
Mode of operation	Band selective duplex			
Nominal gain	-25 dB			
Gain setting range	-25 to -55 dB adjustable in 1 dB steps			
Gain ripple	<±1.5 dB typical			
Gain stability	<±1.5 dB (within operating temperature range)			
Maximum RF input power	+26 dBm			
Harmonics	According to ETSI regulation			
Spurious radiation	According to ETSI regulation			
Optical module maximum RF input power	+5 dBm			
Maximum optical loss between master and slave	15 dBo			
Power supply voltage	48 VDC			
Power consumption	10 W + 8 W / RF to Optical converter			
MECHANICAL PARAMETERS				
Type of power supply connector(s)	DFK-MSTB2,5/3-G; Phoenix			
Type of power supply mating connector	SH03-5.08; Phoenix			
Type of optical connector(s)	FC/APC			









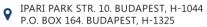
400 MHz Dual Band TETRA/LTE Optical Master Repeater

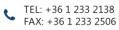
Type of RF connector(s) Number of RF connector(s) A (UL OUT TETRA, UL OUT LTE, DL IN TETRA, DL IN LTE) Number of RF to optical converter(s) Weight A 19 kg Dimensions 19" 4U (see outline dimensions) ENVIRONMENTAL PARAMETERS Operating temperature range O "C +45 "C Storage temperature range A 30 "C +70 "C Relative humidity A 75%, non-condensing Degree of protection SOFTWARE PARAMETERS Wired control Ethernet (SNMP v1 / v2c), RS-232 interface 4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED Wireless control Not installed EXTERNAL ALARM AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) Pin no. Function 1 Ext. Alarm IN 1 6 Ext. Alarm COMMON 2 Ext. Alarm IN 1 6 Ext. Alarm COMMON 2 Ext. Alarm IN 2 7 Dry Contact 3 N.C. 8 Ext. Alarm IN 3 Ext. Alarm COMMON - Dry Contact S Ext. Alarm IN 4 Dry Contact S Ext. Alarm IN 4 Dry Contact S Ext. Alarm IN 5 Ext. Alarm IN 4 Dry Contact No. 6 N.C. A Dry Contact B Ext. Alarm IN 4 Dry Contact C Ext. Alarm COMMON - Dry Contact S Ext. Alarm IN 6 N.C. A Dry Contact S T Dry Contact S						
Number of RF to optical converter(s) Weight Indicates the state of t	Type of I	RF connector(s)		4.3-10 – female		
Weight	· ·		4, (UL OUT TETRA, UL OUT LTE, DL IN TETRA, DL IN LTE)			
Dimensions 19" 4U (see outline dimensions) ENVIRONMENTAL PARAMETERS Operating temperature range 0°C +45 °C Storage temperature range -30 °C +70 °C Relative humidity < 75%, non-condensing Degree of protection IP20 Indoor SOFTWARE PARAMETERS Wired control Ethernet (SNMP v1 / v2c), RS-232 interface Alarm I/O 4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED Wireless control Not installed 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 1 N.C. 8 Ext. Alarm IN 4 5 Ext. Alarm COMMON 1 N.C. 6 N.C. 2 RX Data 7 N.C. 3 TX Data 8 N.C. 4 N.C. 9 N.C. 5 GND POWER SUPPLY CONNECTOR PINOUT (DFK-MSTB2,5/3-G) (2) Pin no. Function 1. +48 VDC (+) 2. N.C.	Number of RF to optical converter(s)					
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1. +48 VDC (+) 2. N.C.						
2. N.C.	Pin no.		Function			
	1.		+48 VDC (+)	1 2 3		
3. 0 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.







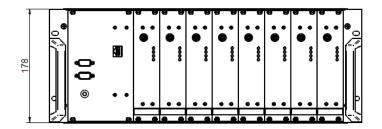


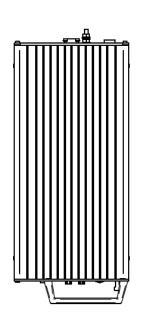


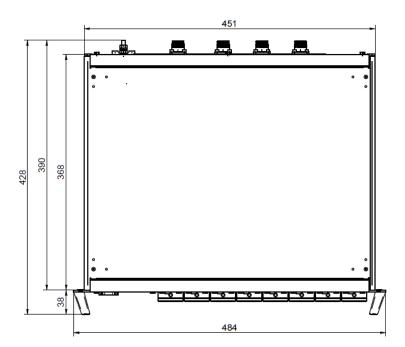
BRMF65

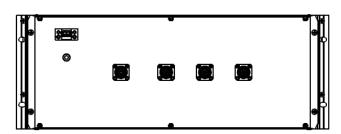
400 MHz Dual Band TETRA/LTE Optical Master Repeater

OUTLINE DRAWING (mm)









ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BRMF65K11333	BRMF65, incl.: 8x BRMF26, UL: 410.0-415.0 & 452.5-457.5 MHz / DL: 420.0-425.0 & 462.5-467.5 MHz, Separated RF ports, 4x 4.3-10 female, FC/APC, 19" 4U, 48 VDC, SNMPv2c + RS-232

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRMF65-LM-K11333	V04	2023-05-08



