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
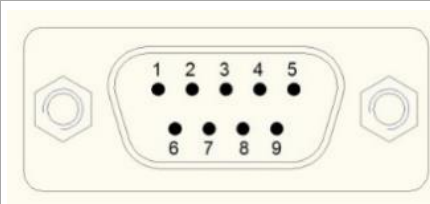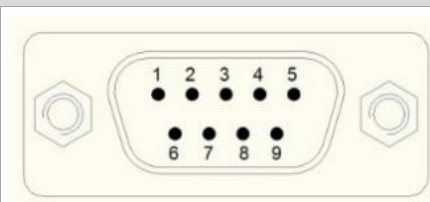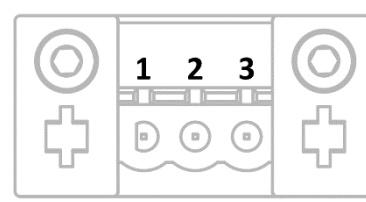- ❖ SNMP support

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

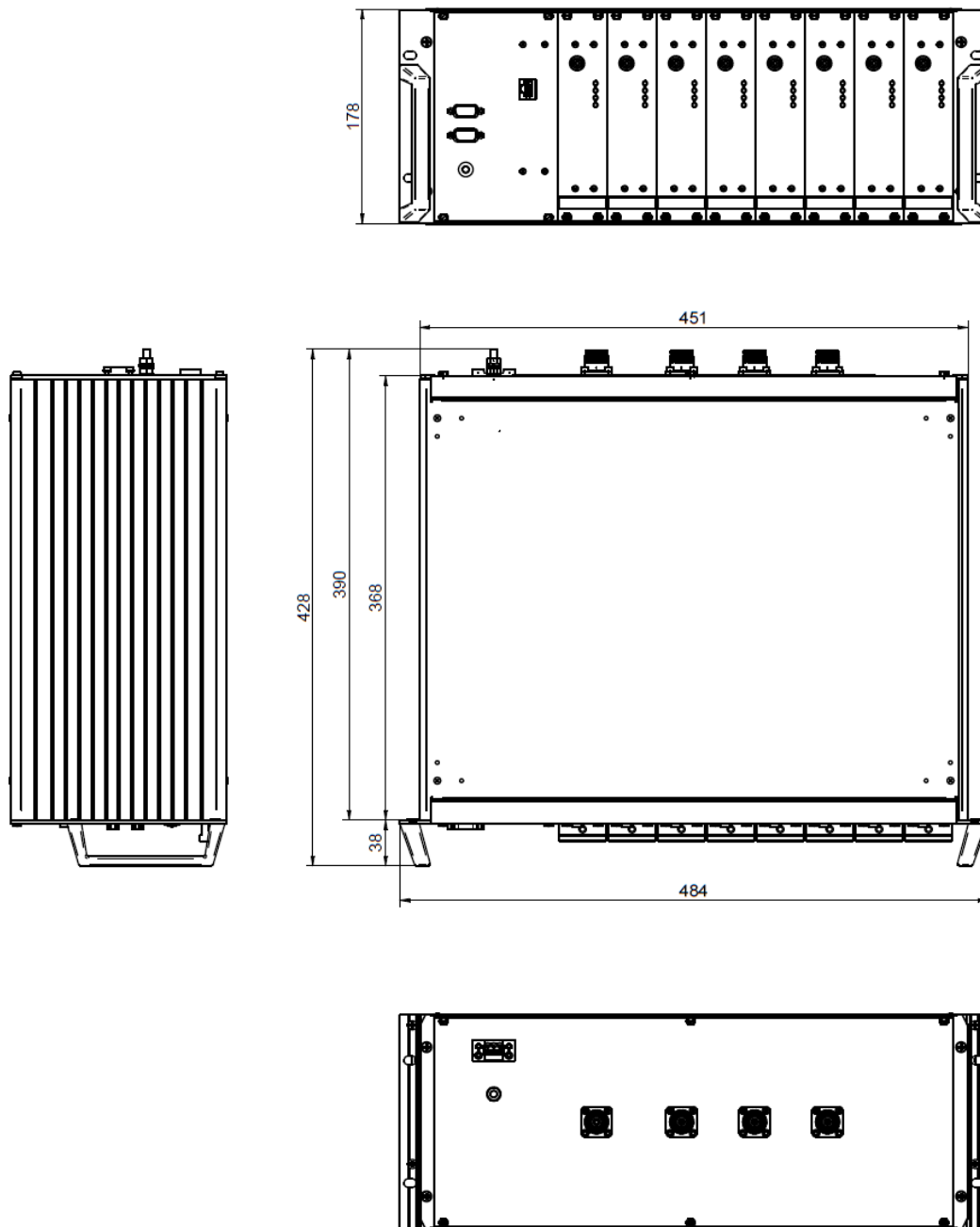| ELECTRICAL PARAMETERS		
Frequency band	Downlink:	420.0 - 425.0 MHz
		462.5 - 467.5 MHz
	Uplink:	410.0 - 415.0 MHz
		452.5 - 457.5 MHz
Operating frequency bandwidth	5 MHz	
Mode of operation	Band selective duplex	
Nominal gain	-25 dB	
Gain setting range	-25 to -55 dB adjustable in 1 dB steps	
Gain ripple	<±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	

BHE
BONN HUNGARY
ELECTRONICS LTD.

IPARI PARK STR. 10. BUDAPEST, H-1044
P.O. BOX 164. BUDAPEST, H-1325

TEL: +36 1 233 2138
FAX: +36 1 233 2506

EMAIL: SALES@BHE-MW.EU
WEB: WWW.BHE-MW.EU

Type of RF connector(s)	4.3-10 – female
Number of RF connector(s)	4, (UL OUT TETRA, UL OUT LTE, DL IN TETRA, DL IN LTE)
Number of RF to optical converter(s)	8 x BRMF26
Weight	<19 kg
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	-	-	

LOCAL CONTROL (RS-232) CONNECTOR PINOUT (D-SUB MALE)

Pin no.	Function	Pin no.	Function	
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.	
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.

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