

MAIN FEATURES

- ❖ Star or daisy chain configuration
- ❖ Supports up to 8 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
- ❖ Supports master redundant configuration



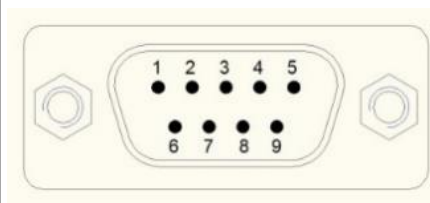
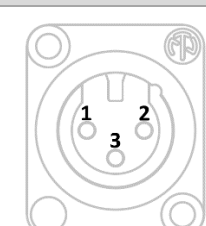
DESCRIPTION

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

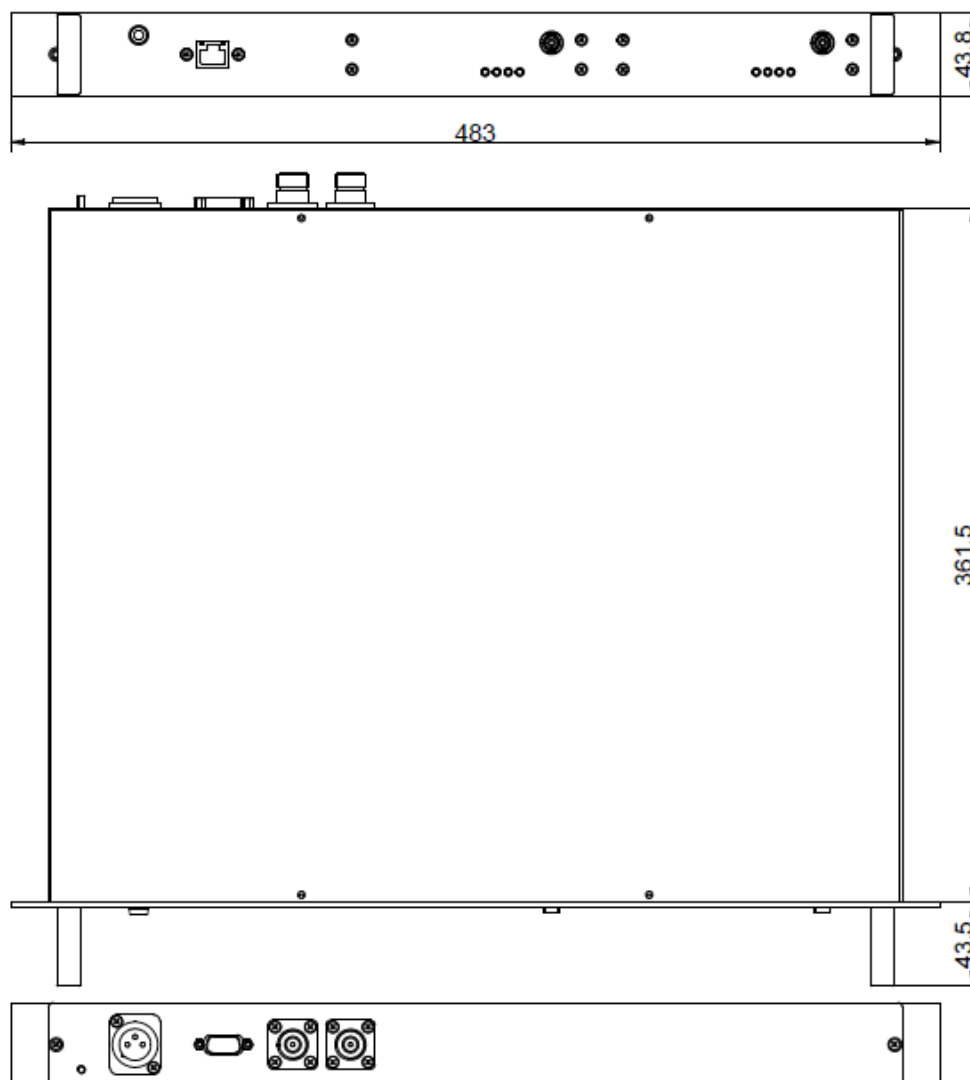
ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 395 MHz Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Band selective duplex
Nominal gain	-10 dB
Gain setting range	-10 to -40 dB adjustable in 1 dB steps
Gain ripple	<±1.5 dB typical
Gain stability	<±1.5 dB (within operating temperature range)
Maximum RF input power	+10 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	40 – 70 VDC
Power consumption	<30 W

MECHANICAL PARAMETERS				
Type of power supply connector	NC3MD-LX, Neutrik, XLR, 3 pole			
Type of optical connectors	FC/APC			
Type of RF connectors	N – female			
Number of RF connectors	2, Separated DOWNLINK IN, UPLINK OUT port			
Number of RF to optical converters	2 pcs, non-extendable on site			
Weight	<7 kg			
Dimensions	19" 1U (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)			
Alarm I/O	4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED			
Wireless control (optional)	2G / 4G modem			
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 (NEUTRIK, NC3MD-LX)				
Pin no.	Function			
1	GND			
2	+48 VDC (+)			
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.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	FREQUENCY BAND	POWER SUPPLY	RF PORT	OPTICAL CONNECTOR	MODEM
BRMF57K10219	380-385 MHz / 390-395 MHz	48 VDC	Separated	FC/APC	
BRMF57K10554	380-385 MHz / 390-395 MHz	230 VAC	Combined	FC/APC	✓
BRMF57K10555	410-415 MHz / 420-425 MHz	230 VAC	Combined	FC/APC	
BRMF57K11128	415-420 MHz / 425-430 MHz	230 VAC	Separated	SC/APC	
BRMF57K11220	415-420 MHz / 425-430 MHz	230 VAC	Separated	FC/APC	

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRMF57	V01	2023-03-30