BRMF30

TETRA OPTICAL MASTER REPEATER

- **UP TO 16 OPTICAL OUTPUTs**
- **STAR or DAISY CHAIN CONFIGURATION**
- **UP TO 32 SLAVEs SUPPORT WITH EXTERNAL OPTICAL SPLITTERS**
- **REMOTE SUPERVISION OF ALL SLAVE UNITS**
- **WDM TECHNOLOGY** (Optical Wavelength Division Multiplexer)
- **AUTOMATIC OPTICAL POWER CONTROL**
- **SUPPORTS BOTH MEDIUM & MACRO SLAVES**
- **SNMP SUPPORT**

This TETRA master repeater is intended for use to convert signals from RF to optical 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.

The standard 19" cabinet has up to 4 optical converters and up to 4 pieces of 1 to 4 optical splitter each with FC/APC optical female connectors. All uplink and downlink gain can be set individually.

Using WDM (Wavelength Division Multiplex) technology the uplink and downlink signals are going on he same optical cable. The same optical cable is used for the remote supervision and alarm handling functions, which results a reliable control of communication link. All the slaves (including theirs optional external alarms) and the master unit can controlled through the master unit with a direct connection or by the help of one GSM modem.

For typical arrangement please, see drawings on page 2.

Electrical characteristics:

Optical Repeater Technical Parameters	
Parameters	Base Station Site **Master** REPEATER
Frequency Band Uplink	380 – 385 MHz *
Frequency Band Downlink	390 – 395 MHz *
Nominal Gain	-20 dB
Gain Setting	-50 to -20 dB adjustable in 1 dB step
Pass Band Ripple	< ±1,5 dB max.
Gain Stability	< ±1 dB (within operating temp. range)
Optical Module Maximum RF Input Power	+5 dBm
Optical loss between master and slave	12 dB, max. without optical splitters
Optical Connectors	FC/APC
RF Connectors	N-female
Power Supply	100-240 VAC / 50-60 Hz, optional DC 48 V
Power Consumption	10 W + 8 W/Channel
Weight	15 kg (depends on number of master optical transceivers and splitters inside)
Size	standard 19", 4U, 400mm
Operating Temperature Range	0°C to +55°C
Storage Temperature Range	-30°C to +70°C
Control Options	-TCP/IP via SNMP protocol -RS232** -GSM modem with SMS function**
Alarm out	-TCP/IP via SNMP protocol -SMS** -Dry relay contact**
Degree of Protection	Indoor

(*) Other TETRA bands are also possible.
(**)Optional function only at Customer's request.
Specifications are subject to change without notice.

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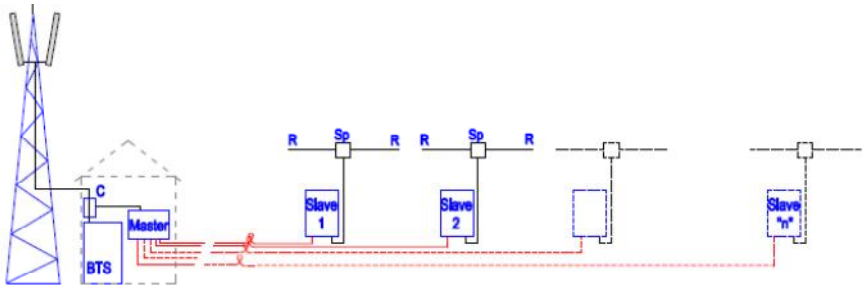
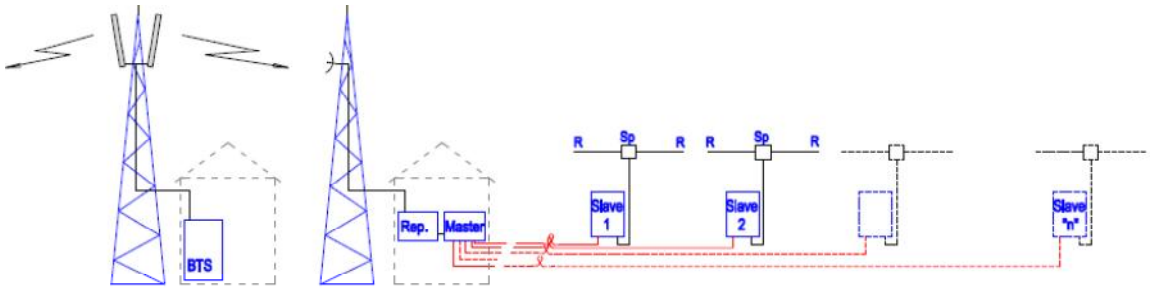
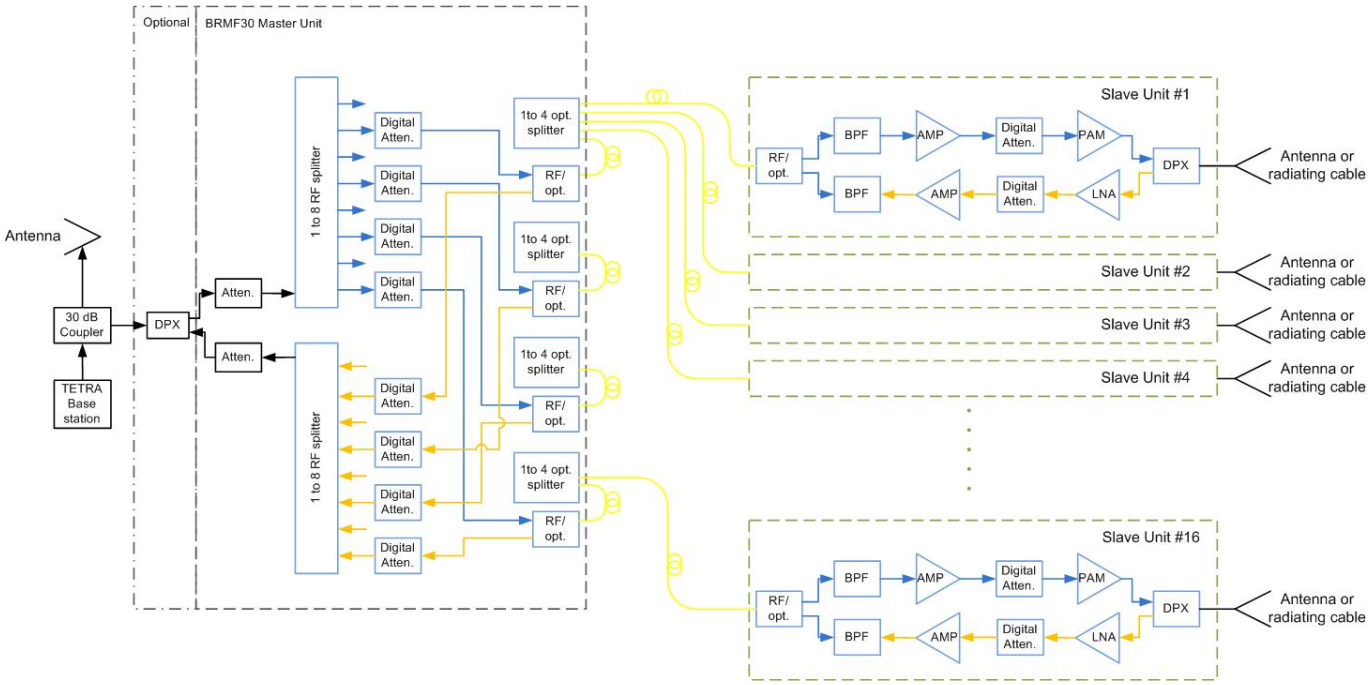
Block diagram of BHE optical systems:







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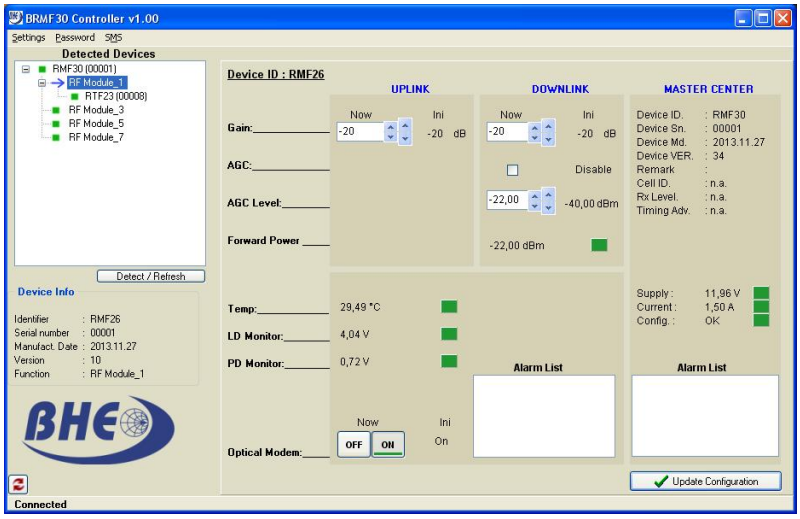
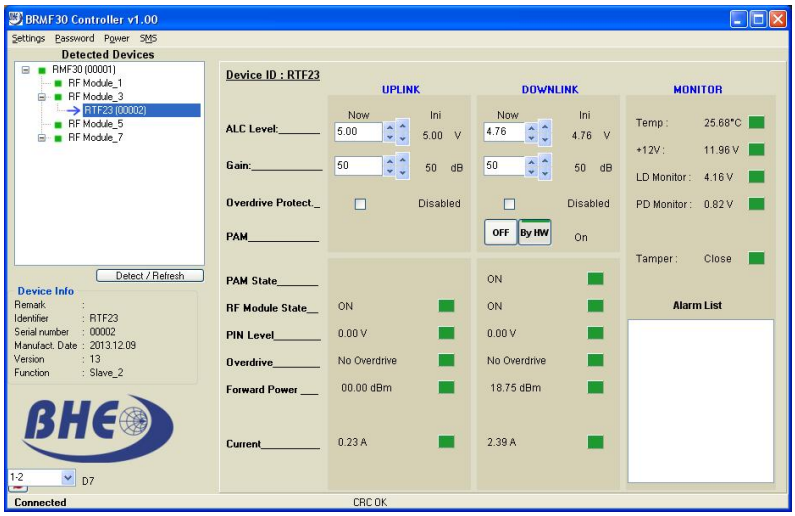
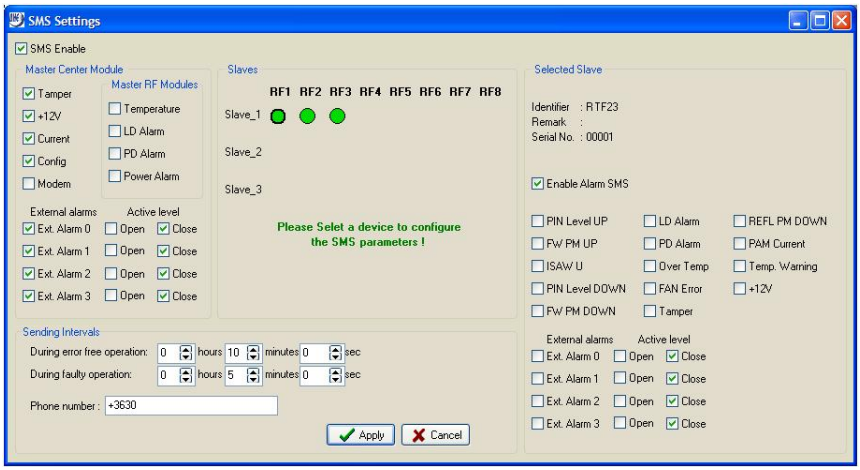


Master unit control window



Slave unit control window



Alarm (SMS) control window

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BRMF30 Optical Master Unit

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