

**TETRA REDUNDANT OPTICAL
MACRO SLAVE REPEATER**

- **4W MAX ALC RF OUTPUT POWER**
- **REDUNDANT OPTICAL CONNECTIONS**
- **HIGH SENSITIVITY**
- **HIGH DYNAMIC RANGE**
- **19” RACK MOUNTED DESIGN**

This repeater is intended to use for TETRA 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 (like tunnels, large buildings etc.). The base station side optical master unit can communicate, control and monitor - through optical fiber - the slave unit on the remote repeater side. In order to increase the redundancy the slave has two independent optical connectors and it can automatically switch from one optical source to the other source if it sense some failure. This very economical solution can be installed easily, and the repeater can be set and monitored using the bundled remote control software.

Electrical characteristics:

Frequency Band Uplink ⁽¹⁾	380 – 385 MHz
Frequency Band Downlink ⁽¹⁾	390 – 395 MHz
Nominal Gain	65 dB
Gain Setting	40 to 65 dB adjustable in 1dB step
ICP3 Downlink	> 68 dBm typ.
Linear Output Power	+36 dBm ** @ -36dBm IM
Max. ALC Level	+36 dBm
Uplink Path Noise Figure	< 6 dB typ @ max. gain
ALC response	3 msec max.
ALC range	40 dB min.
Group delay	2 usec max.
Optical Module Maximum RF Input Power	+5 dBm
Optical Connectors	FC/APC (optional SC/APC)
Maximum optical loss between master and slave	15 dBo, (including jumpers, splitters etc. along the optical connection)
RF Connector	N-female
Power Supply	230 VAC 50-60 Hz (optional 48 VDC)
Power Consumption	< 120 W
Weight	20 kg
Size	3U height 19"
Operating Temperature Range	0°C to +45°C
Storage Temperature Range	-30°C to +70°C
Local / Remote Control Interface	Ethernet, SNMP v1/v2c/(optional) v3 protocol
Optional Monitoring Feature ⁽²⁾	Built-in error log & real-time clock
Alarm out	SNMP Trap messages Dry relay contact
Alarm input	4 external alarm inputs on 9 pin D-Sub male connector
Remote Control	Through optical fiber with master unit
Cooling fan	Yes (with temperature sensor)
Degree of Protection	Indoor

⁽¹⁾ Other TETRA bands are also possible.

⁽²⁾ Optional functions only upon Customer's request.

Specifications are subject to change without notice.

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Dry contact and External alarm connector pin out (9 pin D-Sub male)

Pin number	Function
1	Ext. Alarm IN 1
2	Ext. Alarm IN 2
3	NC
4	Dry Contact
5	Ext. Alarms COMMON
6	Ext. Alarms COMMON
7	Dry Contact
8	Ext. Alarm IN 3
9	Ext. Alarm IN 4



The operation of the Dry Contact relay configurable by the user.
In SWITCH OFF case the relay will be open.

Outline drawing:

