

The output level can be reduced with an attenuator from 90dB μ V to 70dB μ V. If ALC is disabled, the adjustment range of the attenuator range is larger (50dB). The output level may be set higher than 90dB μ V if the input power is high enough. The maximum recommended level is 90 dB μ V.

4. Monitoring and alarms

The unit generates three different alarms (fail1, fail2; fail 1&2). The unit can be monitored by a management system with headend controller OV51A or OV52 (Accessories).

Specifications

Optical characteristics

Wavelength	1290-1600 nm
Input power	-12 dBm...+2 dBm
Fiber single mode	9 / 125 μ m
Connector	E 2000 APC

RF characteristics

Frequency range	5 - 100 MHz
Impedance	75 Ω
Amplitude response	< \pm 0,75 dB
Output level (6% OMI)	
- ALC on	90 dB μ V
Attenuator	
- ALC on	0 - 20 dB
- ALC off	0 - 40 dB
Isolation between output 1 - 2	
- Dual mode	\geq 50 dB
- Combining mode	\geq 20 dB
- Redundancy mode	\geq 20 dB
Output return loss	18 dB
Testpoint	- 20 dB

NMS functions

Monitoring	Mode	
	Optical input level	
	ALC	
Configurations	Redundancy threshold	
	Mode - Dual, redundancy, combining	
	ALC	
Alarms	Optical power	< -20 dB
	Optical power	< -20 dB
	Optical power	< -20 dB

General

Housing	Zinc die cast
Power supply /	5 VDC / 300 mA
Current consumption	12 VDC / 300 mA
Ambient temperature	0 $^{\circ}$...+50 $^{\circ}$
Storage temperature	-25 $^{\circ}$...+75 $^{\circ}$
EMC	EN 50083-2
Dimensions	30 x 264 x 200 mm

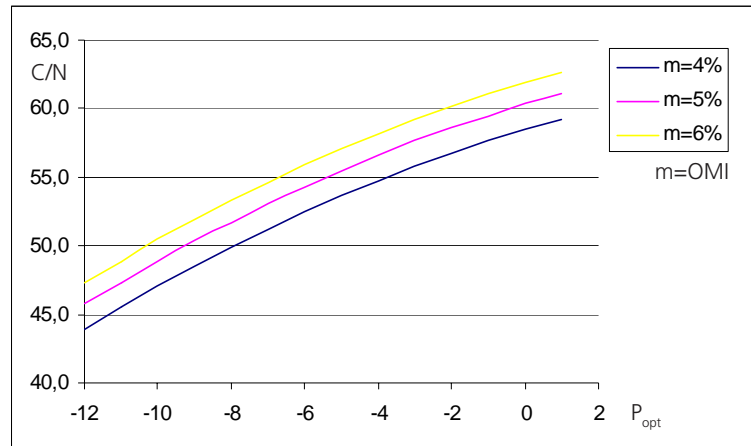
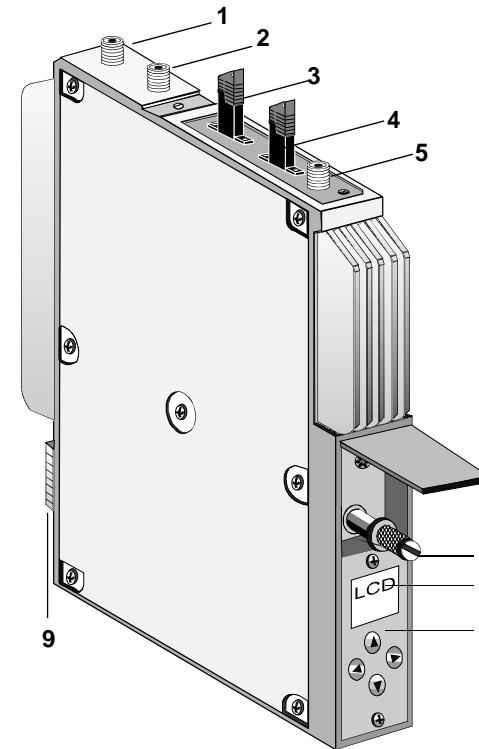


Table C/N - Popt

05/04



LR 52 Optical Dual Return path receiver



1. RF out (F socket) CH 2
2. RF out (F socket) CH 1
3. Opt. input CH 1 (E 2000 APC)
4. Opt. input CH 2 (E 2000 APC)
5. MP -20 dB (F-Buchse)
6. Fixing screw
7. Display
8. Control panel
9. DC connector

Factory settings:

- Mode Dual
- Input 1&2
- Output 1&2
- Test port 1
- ALC on
- Attenuator1/2 = 0dB

Display after switching on:

- LR52
- Mode
- Popt1
- Popt2

- Dual optical return path receiver
- Optical input levels from -12 dBm ...+2 dBm
- Two inputs with 50 dB isolation
- Input frequency range 5-100 MHz
- Wavelength 1290 and 1600 nm

Note:

Use only pigtailed with mono mode (single mode) fiber and E 2000 APC connector.

Operation

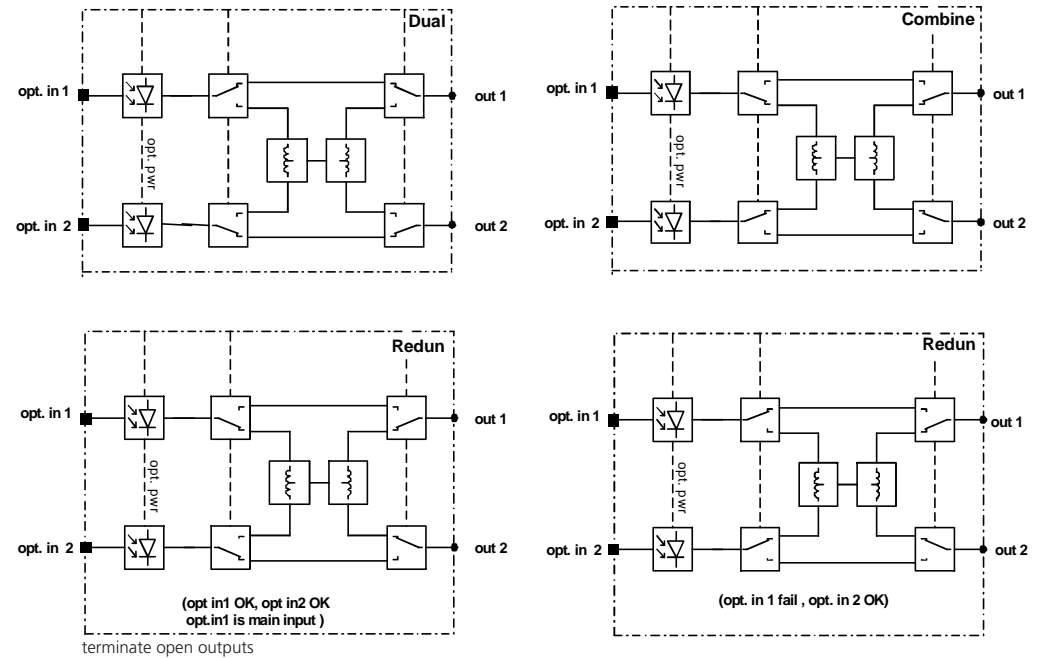
Select the menu item and adjust the values in a menu line with the UP/DOWN keys ▲▼.

Enter values and enter and exit from menu lines with the LEFT/RIGHT key ◀▶.

Saving/power failure. — Data saved automatically after about 25 seconds. Data are retained in the case of a power failure.

Operation step	Display	Display examples
Mode	Mode	Dual Combine Redun refer to Dual/Combine/Redun Mode
Input	Input	1 Activates input 1. 2 Activates input 2. 1&2 Activates input 1+2.
Output	Output	1 Activates output 1. 2 Activates output 2. 1&2 Activates output 1+2.
Test point	TestP	1/2 Select output 1 or 2 to be measured.
Autom. Level Control	ALC	on Stabilizes output level at 90 dBµV. off Offers 50 dB manual attenuator range.
Attenuator 1/2	Att1	0-20 dB In "ALC on" mode, level can be set from 70-90 dBµV 0-50 dB In "ALC off" mode, 50 dB attenuator range
Optical Input-level	Popt1/2	-12dBm... Optical power +2dBm
Threshold	RedCont	-12dBm... Displayed when setting to "Redun" mode 1dBm
Alarms	Alarms	fail1 Optical input level too low - no output level fail2 fail1&2
Mod. No.	Mod No	Settings: refer to OV 51... / OV 52...headend controller manual
Software version	Version	1.0

Dual/Combine/Redun Mode



1. Selecting the operation mode

Dual

Select input 1, input 2 or input 1&2. If only one optical input is selected you can have the RF-signal at both outputs.

Combining

The two optical inputs are combined at the outputs. It is possible to select output 1&2 or only one output.

Redundancy

Optical input 1 is for the main fibre. Input 2 is only for the backup fibre. Select the menu item RedCont to adjust the threshold value. If the master input 1 fails, the unit switches to input 2 and the display starts blinking. An alarm is generated. The LR52 automatically switches back to input 1 when the optical input power there is greater than the threshold value. Note that there is a delay of about 5 seconds before the unit switches back.

2. How to configure the inputs and outputs.

In the normal **dual mode**, the two receivers operate completely independently. If only one receiver is active, it is possible to have the same electrical signal at both outputs. For this reason, you must select the inputs and outputs individually while working in dual mode.

The **combining mode** always uses both inputs. After the two signals have been combined, you can select the output at which the signal is to appear, namely at only one output or at both outputs.

Instructions

The **redundancy mode** uses input 1 as the master input and input 2 as backup. The output is sent only to output 1. When the unit is operating normally, the backup signal is at output 2. The test port can be switched to output 1 (the master signal) or to output 2 (the backup signal).

If the unit switches to the backup input (input 2), the signal level at input 1 cannot be measured. The backup signal is present at outputs 1 and 2. You can only see the optical input power on the display. The menu item RedCont is used for setting the threshold value. There is a time delay for switching back from output 2 to output 1.

3. Automatic Level Control and Attenuator

The automatic level control (ALC) stabilises the output level at 90dBµV. The unit can compensate for optical input level variations in the range -12dBm to +2dBm.