



# Optical nodes

## Optical receiver with return path transmitter

- electronic setting of all parameters
- AGC based on optical input level
- digital indication of optical input level and other parameters on built-in LED display
- switchable ingress blocking filter
- uncooled FP laser diode for CATV return path application
- integrated data transmitter for remote monitoring subsystem "MasterWatch"
- 5 MHz pilot generator inside
- connectors:  
optical - SC/APC  
RF output and test - type F



Technical specifications

T Y P E		OD010*
<b>Forward path</b>		
Optical wave length		1100-1600 nm
Optical input level (AGC range)		-7 ...2 dBm
Noise current density		≤ 7.0 pA/√Hz
Frequency range*		47/75/87/108-1002 MHz
Impedance		75 Ω
Return loss		18 dB/40 MHz-1.5 dB/oct
Frequency response		± 0.75 dB
Output level (AGC controlled, 4.9% OMI)		106 dBμV
Output level (CTB, EN50083-3)		106 dBμV (42 ch.)
Output level (CSO , EN50083-3)		108 dBμV (42 ch.)
Interstage attenuator	pr.	0-15 dB by 1 dB step
Interstage equalizer	pr.	0/3/6/9 dB
Test point		-20 dB ± 0.7 dB
<b>Return path</b>		
Laser diode type		FP
Optical output power*		1/2 mW
Wave length**		1310 ± 10 nm
Frequency range*		5-30/55/65/85 MHz
Ingress blocking filter		band pass >20 MHz, band stop <15 MHz
RF input level		75-95 dBμV
Return path attenuator	pr.	0-25 dB by 1 dB step
Input return loss		18 dB
Pilot tone	pr.	5 MHz
Test point		-20 ± 0.5 dB
<b>General</b>		
Power consumption		187-250 V~ 50 Hz 7 W
Operating temperature range		-20° ÷ + 45° C
Dimensions/Weight (packed)		185.5x95x47 mm/0.9 kg

\* ordering information:

Type	Frequency	Laser power	Ordering number
OD010R31	5-30/47-1002 MHz	1 mW	02844A
OD010R32	5-30/47-1002 MHz	2 mW	02844B
OD010R51	5-55/75-1002 MHz	1 mW	02844C
OD010R52	5-55/75-1002 MHz	2 mW	02844D
OD010R61	5-65/87-1002 MHz	1 mW	02844E
OD010R62	5-65/87-1002 MHz	2 mW	02844F
OD010R81	5-85/108-1002 MHz	1 mW	02844G
OD010R82	5-85/108-1002 MHz	2 mW	02844H

\*\* DFB 2mW laser diodes for CWDM (1470...1610 nm) band are supplied by special request

Remotely monitored parameters using monitoring subsystem "MasterWatch":

- input optical level
- temperature inside node
- laser diode current
- node status

pr. software control

