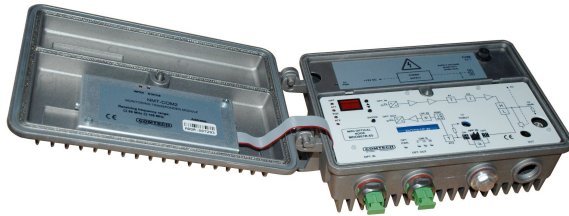


## MDO801 COMPACT MINI OPTICAL NODE



- Low noise optical receiver
- FP, DFB or CWDM Return path optical transmitter
- 1 RF output
- 862MHz GaAs MMIC amplifier
- Electronic attenuator and TILT
- Local or remote powering
- Status monitoring option

### GENERAL DESCRIPTION

The MDO801 super compact optical node contains 1 forward path receiver and 1 return path transmitter module. Device is available with 230V or remote power supply. The OLC (Optical Level Control) circuit provides the right RF level. Settings of device (AT, EQ) can be modified electronically with buttons. Device's configuration can be defined with ordering information what you can find at the end of product guide.

### TECHNICAL SPECIFICATIONS

#### Optical receiver parameters

Bandwidth [MHz]	47...862
Wavelength [nm]	1290...1570
Optical input level range [dBm]	-7...+2
Nominal optical input level [dBm]	0
Optical input return loss [dB]	>45
Equivalent input noise [pA/√Hz]	6
Level control	OLC
Output level accuracy [dB]	±1
Flatness [dB]	±0,7
Optical connector type	SC/APC, FC/APC, EURO2000

#### Optical transmitter parameters

	FP	DFB	CWDM
Frequency range [MHz]	5-65	5-65	5-65
Wavelength [nm]	1310	1310	1470-1610
Spectrumwidth [nm]	2	0.1	0.1
Wavelength-change depending on temperature [nm/°C]	0.4	0.08	0.11
Noise figure (RIN) [dB/Hz]	-125	-145	-145
CSO [dBc]	-40 <sup>(1)</sup>	-52 <sup>(1)</sup>	-50 <sup>(1)</sup>
CTB [dBc]	-50 <sup>(1)</sup>	-62 <sup>(1)</sup>	-55, -60 <sup>(1)</sup>
Output power [mW]	1	2	2, 4
Nominal input level (10% OMI) [dBμV]		75	

*Specifications are subject to change without notice!*

Flatness [dB]	±0,5
Input impedance [Ω]	75
RF level on the testpoint of the optical transmitter [dBμV]	70±1 <sup>(2)</sup>
Optical connector type	SC/APC, FC/APC, EURO2000
<b>RF parameters</b>	
Max. adjustable output level (OMI=4%, ATT=0, EQ=0) [dBμV]	115
Max. output level (EN60728, 42 ch, 8dB SLOPE, CTB, CSO ≤-60dBc) [dBμV]	110
Output testpoint attenuation [dB]	30±1
Flatness [dB]	±0.7
Output amplifier-module type	GaAs MMIC
Number of active outputs	1
Output diplex filter [MHz]	30/47 or 65/85
Output return loss (40MHz -1.5dB/octave) [dB]	>18
Output impedance [Ω]	75
Attenuator in forward path (step: 0.5dB) [dB]	0-15
Attenuator in return path (step: 0.5dB) [dB]	0-15
TILT in forward path (step: 0.5dB) [dB]	0-15
Breakpoint frequency of TILT [MHz]	862
<b>General parameters</b>	
Screening factor [dB]	80
Maximum power consumption [W]	15
Power supply voltage [VAC]	☑ 230V AC or ☑ 30...65; ☑ 35...90
Maximum current feed-through [A]	10
Hum modulation [dB]	70
Degree of protection	IP 43
Temperature range [°C]	-20...+50
RF connector type	PG11 (5/8", F)
Dimensions [mm]	202x146x80
Weight [kg]	1.7

(1) 2 signals, 25% modulation depth, 5-65MHz

(2) 10% optical modulation index

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