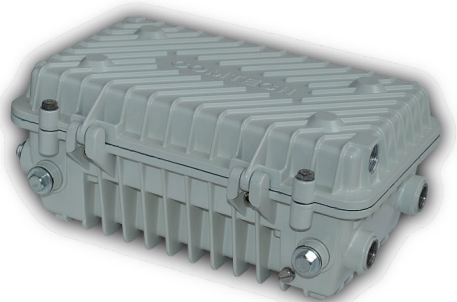


MO1202 STANDARD MODULAR OPTICAL NODE



- Downstream frequency range up to 1218 MHz
- Upstream frequency range up to 204 MHz
- Optional connection to Monitoring System
- Optional GaN output stage
- Optional CWDM return path
- Automatic optical gain control
- Automatic ingress management by the RSW module

GENERAL DESCRIPTION

The MO1202 is a standard bidirectional node in low profile housing. The construction makes configuration and use very easy, parallel the expenses will be lowered too. The node provides GaN output stage and optionally CWDM return path transmitter.

TECHNICAL SPECIFICATIONS

Forward path parameters

Wavelength [nm]	1100...1650
Input optical power [dBm]	-5...+3
Equivalent input noise current [pA/√Hz]	6
Frequency range [MHz]	47...1218
Equalizer breakpoint frequency [MHz]	862, 1006, 1218 ⁽¹⁾
Gain limited output RF level at 2.5% OMI/channel [dBμV]	120±1
Flatness [dB]	±0.7
Output return loss (40MHz -1.5dB/octave) [dB]	>18
Input RF testpoint level at 2.5% OMI/channel [dBμV]	86±1
Output RF testpoint attenuation [dB]	30±1
CTB [dB]	-72 ⁽²⁾
CSO [dB]	-70 ⁽²⁾
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 42 [dB]	>46 / 36 ^{(3) (4)}

Specifications are subject to change without notice!

Reverse path parameters

Output optical power [mW]	2, 4 (3, 6 dBm) ⁽⁵⁾
Wavelength [nm]	1310 DFB, 1270...1610 CWDM
Frequency range [MHz]	5...204
Diplex filter [MHz]	65/85, 85/105, 204/258
RF input level (10% OMI/channel) [dBμV]	70±1
Flatness [dB]	±0.5
Input return loss (40MHz -1.5dB/octave) [dB]	>18
Ingress control switch (RSW) states	0dB/-6dB/-50dB/HPF20
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 36 [dB]	45 / 9 ⁽⁶⁾

General parameters

RF connector	5/8"
Optical connector	SC/APC, EURO2000
Power supply voltage [VAC]	~ 30...65; □ 35...90
Maximum power consumption [W]	40
Maximum current feed-through [A]	10
Hum modulation [dB]	70
Screening factor [dB]	80
Degree of protection	IP65
Temperature range [°C]	-20...+50
Dimensions [mm]	275x200x175
Weight [kg]	3.9

(1) Defined by pluggable alignment modules

(2) 60 dBmV at 1218 MHz, 22 dB extrapolated tilt, 79 analog + 111 digital channels (-6 dB offset)

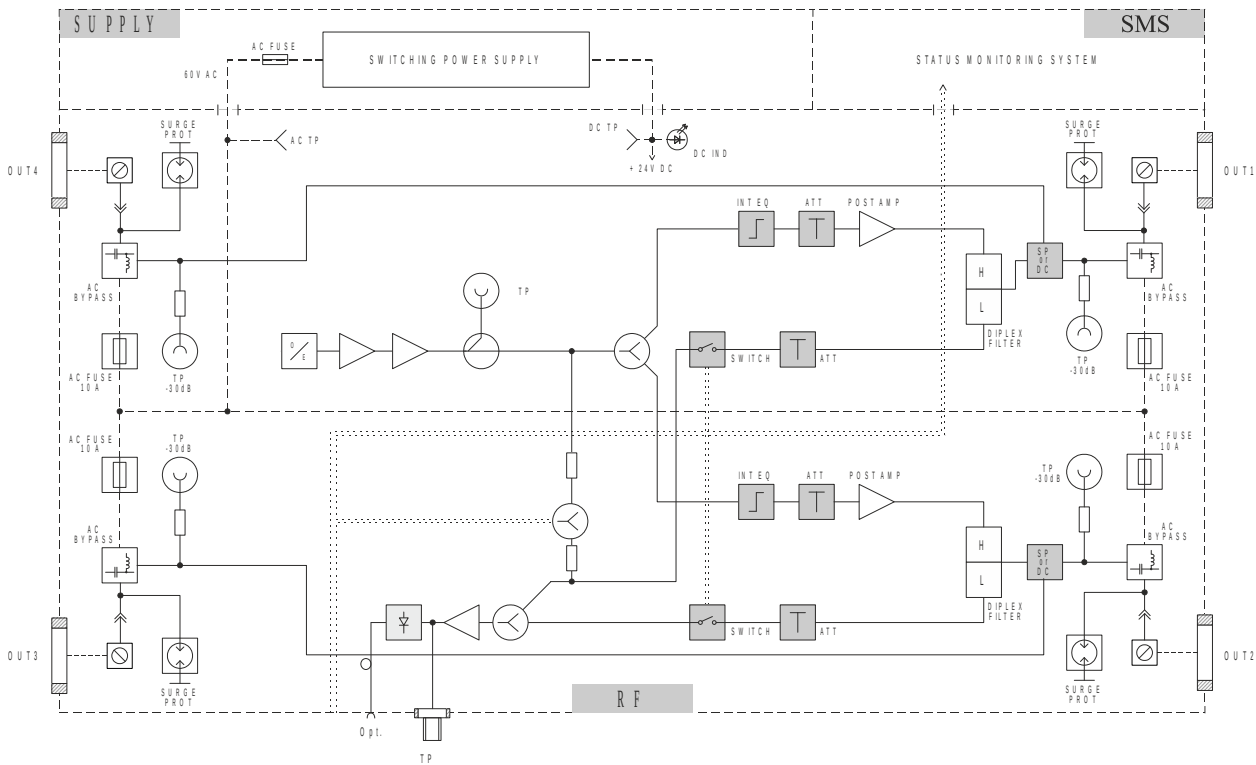
(3) Measured with flat full spectrum load between 47 and 1006 MHz, 1.8% OMI/ch, received power -2 dBm

(4) NPR_{max} at output level of 40 dBmV/ch

(5) 4 mW (6 dBm) output optical power is available only in case of CWDM reverse path lasers

(6) Measured with flat full spectrum load between 5 and 204 MHz, received power -6 dBm

BLOCK DIAGRAM



Specifications are subject to change without notice!

ORDERING INFORMATION

M	O	1	2	0	2	X	-	X	X	-	X	X	-	X	X	X	X	-	X	X
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Amplifier-module type

D	GaN
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Type of the diplex filter

65	Internal 65/85MHz diplex filter
85	Internal 85/105MHz diplex filter
204	Internal 204/258MHz diplex filter

Laser type

2D	DFB laser (2mW)
2C	CWDM laser (2mW)
4C	CWDM laser (4mW)

US Wavelengths *

1270	1270nm
1290	1290nm
1310	1310nm
1330	1330nm
1350	1350nm
1370	1370nm
1390	1390nm
1410	1410nm
1430	1430nm
1450	1450nm
1470	1470nm
1490	1490nm
1510	1510nm
1530	1530nm
1550	1550nm
1570	1570nm
1590	1590nm
1610	1610nm

Type of optical connector

SA	SC/APC (Recommended type)
EU	EURO2000

Option

Required modules

Ordering codes

Monitoring option	1pc NMT-FE, 3pcs RSW2-H20	NMT-FE, RSW2-H20
Wall mount kit	1pc WMK-1 (double)	WMK-1
ONU manhole assembly	1pc ONU-M	ONU-M

* Only wavelengths 1470...1610 nm are available with an output optical power of 4mW!

Specifications are subject to change without notice!