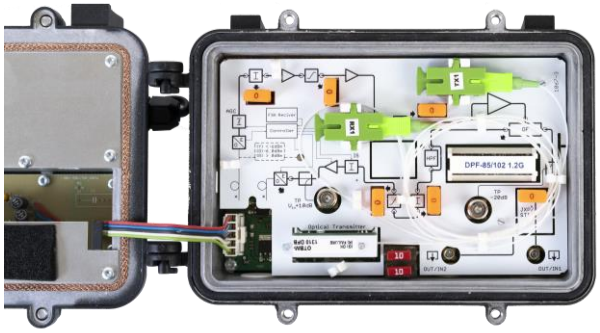
MON-1000, DOCSIS 3.1



- Dedicated to FTTB and RFoG networks
- Umax up to 112dBµV
- Frequency range 1.2GHz
- Perfect bandwidth characteristics
- Built-in AGC (Automatic Gain Control)
- Local and remote powering (exchangeable power supply)
- HDTIP compliant
  - Ingress switch
  - DS Eco mode
  - Laser mode

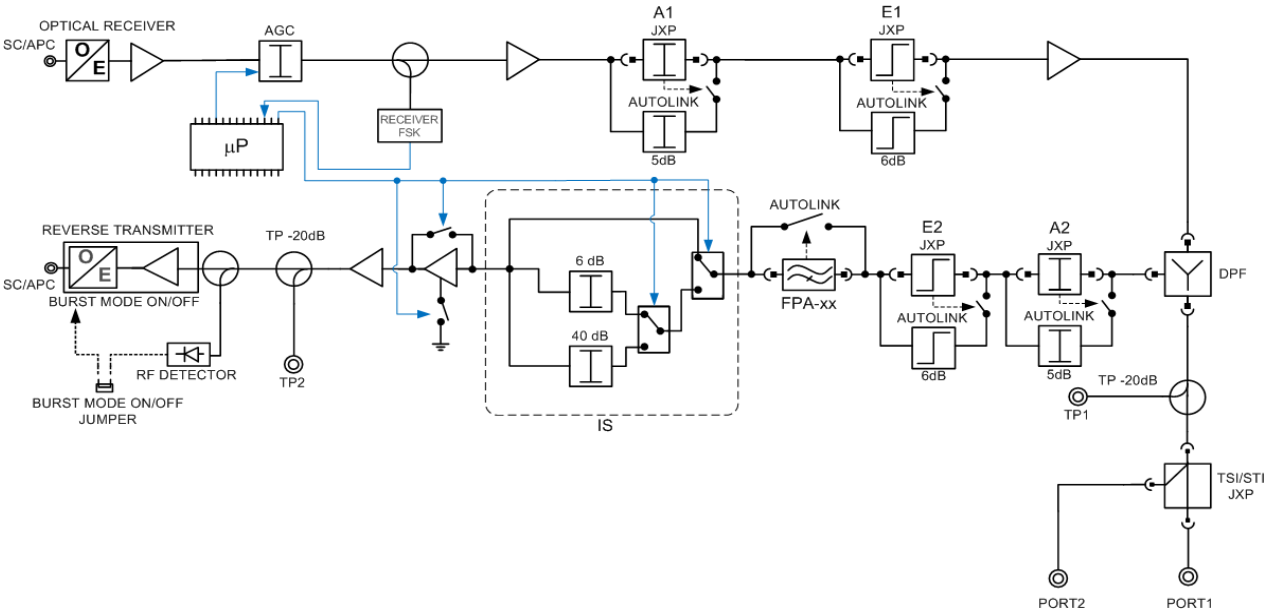
MON-1000 is a compact optical node that features high RF output level; it has been widely applied in **FTTB** and **RFoG** networks**.** Node is designed for DOCSIS 3.1 transmission. Broadcast channel band is 1218MHz. Replaceable DPF filter enables adjustment of return path bandwidth.

MON-1000 is equipped with **BURST MODE** to commence laser action. Return path optical transmitter is activated upon detection of modem transmission. The transmitter activation level is 72dBµV on the optical node input port. Due to application of such mechanism, user can connect several nodes through the optical splitter – according to the network topology – and transmit a signal with single fibre to a single return path optical receiver located in the head end. This function supports also lowering the noise floor that is received by that receiver.

MON-1000 is a modern optical node that meets expectations resulting from conditions at the last mile of a fibre. Its construction, which is based on standard control components, ensures simple servicing and cost optimisation.

This device, same as all new series of Telmor products is compatible with HDTIP, which allows to remotely control part of it's functionality.

BLOCK DIAGRAM



GZT TELKOM-TELMOR SP. Z O.O, ul. Schuberta 104, 80-172 Gdańsk, Poland
tel.: +48 58 3823 349, e-mail: export@telmor.pl

TECHNICAL PARAMETERS

PARAMETERS			MON-1000
OPTICAL PARAMETER			
Input optical power range[1)]		dBm	-9…+3
AGC range		dBm	-6…0
Optical input wavelength		nm	1100…1650
Equivalent input noise current		pA/√Hz	<6
Optical connector		/	SC/APC
FORWARD PATH			
Frequency range		MHz	85/102/110/256…1218
Output level[2)]		dBµV	116
Gain characteristic flatness		dB	<±1
Interstage attenuator A1		dB	JXP plug-in: 0…20, step1 (autolink)
Interstage equalizer E1		dB	JXP plug-in: 0…20, step1 (autolink)
Interstage attenuator A2		dB	JXP plug-in: 0…20, step1 (autolink)
Path to path isolation		dB	≥ 50 at 862-1006 MHz
Group delay (Δf = 4,43 MHz)		ns	≤ 2
Test point		dB	-20±1
Thermal stability		dB	<±1
Return loss@RF output [3)]		dB	18
RETURN PATH			
Frequency range		MHz	5…65/85/204
Laser action mode		/	CW or Burst Mode
Burst mode - laser turn ON RF level		dBµV	75
Group delay (Δf = 1 MHz)		ns	<3ns (8-62MHz)
Return loss [3)]		dB	18
Gain characteristic flatness		dB	±1
Attenuator A3		dB	JXP plug-in: 0…20, step1 (autolink)
Equalizer E1		dB	JXP plug-in: 0…20, step1 (autolink)
Thermal stability		dB	<±0,5
Test point		dB	-10
OTBM Transmitters		/	1310FP 0dBm 1310/1550 DFB 3dBm CWDM DFB 3dBm
OTHER			
Power supply	local: (MON-1925)	V_{AC} / Hz	180…253 / 50-60
	Remote: (MON-1925Z)	V_{AC} / Hz	24…65 / 50-60
HUM modulation (15..1218MHz)		dB	70
Power consumption [4)]		W	<23
Maximum current feed through ports		A	7
Output connector		/	5/8’
Protection class		IP	67
Working temperature range		°C	-20…+65
Weight		kg	1,6
Laser Safety		/	IEC/EN 60825-1
Electrical Safety		/	EN 50083-1, EN 60065, IEC 60065
EMC Emissions		/	EN 50083-2
Dimensions		mm	223x151x98
Package		/	box

1) AGC range -6 … 0dBm
2) 42 analog channels (CENELEC), CTB<-60 dBc and CSO<-60 dBc, 1310nm@ -4dBm, 3% OMI, AGC ON, 0dB slope
3) 18 dB for f≤ 40MHz, 18 dB-1,5dB/oct. for f>40MHz
4) Without return path transmitter

Technical parameters may be changed without earlier notice.

www.telmor.pl

GZT TELKOM-TELMOR SP. Z O.O, ul. Schuberta 104, 80-172 Gdańsk, Poland
tel.: +48 58 3823 349, e-mail: export@telmor.pl