

PMN-1 Mini Indoor Optical Node

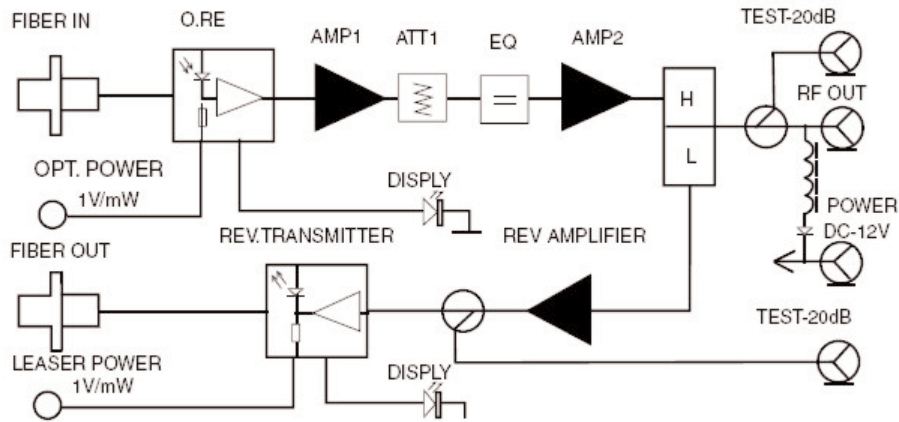
PMN-1 Mini Indoor Optical Node



- Compact, 5" x 3" x 1.3" precision aluminum die-cast case guarantees excellent mechanical integrity, ease of installation and shielding effectiveness.
- Bi-directional operation with forward bandwidth from 54~1000MHz (analog and digital) and reverse bandwidth from 5~42MHz.
- Wide optical input range (-6dBm to 3dBm) provides excellent operation at low optical input levels.
- Full 25dBmV typical RF output for superior C/N performance.
- Return loss guarantees excellent impedance match across the frequency band with minimal reflection and cross coupling between ports.
- Optical power monitoring for optimal optical input and output power range indication.
- Calibrated 1V/mW optical input test point for signal monitoring.
- 12Vdc line powered with a wall mounted 20/240Vac wall adaptor.
- Integrated high linearity optical receiver and transmitter for two-way operation.

PMN-1 Mini Indoor Optical Node

The Pico Macom model PMN-1 is a compact, cost-effective and fully featured indoor optical node specifically designed for the delivery of analog and digital video, high-speed data and telephony signals into homes. This unit has diverse applications in MDU, industrial, government and educational institutions for the delivery of current and future broadband CATV services. The fiber core employed in the unit design is a 1310/1550 nm optical receiver with a wide optical input window of -6 to 3dBm. The PMN-1 has an integrated optical attenuator and equalizer and a precision LED to indicate received optical power. The power is provided through coaxial cable (line) or an external wall mount power adaptor. The unit employs GaAs amplifier technology for excellent broadband RF performance and spurious-free RF output.



PMN-1 Specifications

Forward Receiver

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
λ	Optical Wavelength	-	1290	-	1600	nm
$V_{Opt. In.}$	Monitor Voltage	$\lambda=1310$	-	1	-	V/mW
P_{in}	Optical Input Power	Continuous	-6	1	3	dBm
f	Frequency Range	-	54	-	1000	MHz
FL	Freq. Response Flatness	$f=53\sim 1000\text{MHz}$	-	± 0.5	-	dB
S22	Output Return Loss	$f=53\sim 1000\text{MHz}$	15	16	-	dB
V_o	Output Level	-	-	25	-	dBmV
	Optical Return Loss	-	45	-	-	dB
CTB	Composite Triple Beat	99chs flat,	-	-	-61	dB
CSO	Composite Second Order	$f_m=859.25\text{MHz}$	-	-	-60	dB

Return Transmitter

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
λ	Optical Wavelength	-	-	1310	-	nm
W_{Out}	Optical Output Power	Continuous	0.5	1	3	dBm
$V_{Opt. In.}$	Monitor Voltage	$\lambda=1310$	-	1	-	V/mW
$V_{rin.}$	RF Input Level	-	-	15	-	dBmV
f	Frequency Range (option)	-	5	-	42	MHz
FL	Freq. Response Flatness	$f=5\sim 42\text{MHz}$	-	± 0.5	-	dB
S11	Input Return Loss	$f=5\sim 42\text{MHz}$	15	16	-	dB
	Optical Output Return Loss	-	-	45	-	dB

General

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
I_{tot}	Total Current Consumption	$V_{+}=12\text{V}$	-	350	-	mA

Dimensions: 7.5" L x 4.2" W x 3.3" H

Weight: 0.75 lbs