



PMN-1

FIBER OPTICS
Mini-Indoor Optical Node



Features

- Integrated high linearity optical receiver and transmitter for two-way operation
- Compact, 5" x 4" 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 1W/mW optical input test point for signal monitoring
- 12Vdc line powered with a wall mounted 120/240Vac wall adaptor included

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=53-1000MHz	-	±0.5	-	dB
S ₂₂	Output Return Loss	f=53-1000MHz	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 Ordering	f _m =859.25MHz	-	-	-60	dB

* Test Results are typical and were performed at our San Diego test center.

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RETURN TRANSMITTER						
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
λ	Optical Wavelength	-	-	1310	-	nm
WOut	Optical Output Power	Continuous	0.5	1	3	dBm
VOpt.In.	Monitor Voltage	I=1310	-	1	-	V/mW
Vrin.	RF Input Level	-	-	15	-	dBmV
f	Frequency Range(option)	-	5	-	42	MHz
FL	Freq. Response Flatness	f=5-42MHz	-	±0.5	-	dB
S11	Input Return Loss	f=5-42MHz	15	16	-	dB
		Optical Output Return Loss	-	-	45	dB
GENERAL						
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
VIn	-	-	11.5	-	15.5	VAC
Itot	Total Current Consumption	V+=12V	-	350	-	mA
PHYSICAL						
Dimensions	5.15" (L) x 4.4" (W) x 1.3" (H)					
Weight	0.75 lbs.					

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