

# VPN2000 2-Port Premise Node

## Description

The VPN2000 series are high performance, 2 output, compact sized, economical and robust optoelectronic nodes. The features of this series include a high output level of 54dBmV (114dBμV) on one port or 50dBmV (110dBμV) on two ports at 870MHz, a wide range of optical input powers from -7 to +2dBm with AGC/MGC capability, and the ability to accommodate two forward receiver for redundancy and one return path transmitter. Also, equipped with an RJ45 Ethernet port to interface with an advanced SNMP based monitoring system inside of the unit, the VPN2000 offers system operators an easy way to remotely access the node, monitor the operational status and control the parameters. Additionally, this node has a unique anti-tampering/theft alarm mechanism to further ensure the security and stability of the operator's network.



## Features

- 1 or 2 output ports
- High output power of 54 dBmV (114dBμV) at 1003MHz
- Excellent thermal dissipation
- Selectable AGC/MGC feature
- Optional redundant receiver
- Advanced SNMP network monitoring via Ethernet network interface
- Optional return path FP or DFB transmitter
- 6KV surge protection
- RoHS compliant
- LED indicator for optical input power
- Anti-tampering/theft alarm mechanism

## Specifications

Parameter	Unit	Specification
<b>Forward</b>		
<b>Optical Performance</b>		
Wavelength	nm	1200 -1600
Input power	dBm	-7 to +2
Optical return loss	dB	>40
<b>RF Performance</b>		
Bandwidth	MHz	54/85-870
Flatness	dB	+/-1
Return loss	-dB	≥16
Slope	dB	9
Output level	dBmV	54 at 1003MHz, 1 port/50 at 1003MHz, 2 ports split (OMI 3.8%)
Test point	dB	-20+/-1
<b>Link Performance</b> (15Km fiber + attenuator, -7dBm for CNR, +2dBm for CSO/CTB, 77 NTSC channels, OMI=3.8%)		
CNR	dB	>46
CSO	-dBc	>60
CTB	-dBc	>63

**Reverse**

**Optical Performance**

Wavelength and Output power	nm/mW	Refer to ordering information
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**RF Performance**

Bandwidth	MHz	5 to 42/65
Flatness	dB	+/-1
Return loss	-dB	≥16
Input level	dBmV	20
Test point	dB	-20+/-1

**Link Performance** (10dB link loss, 15Km fiber + attenuator)

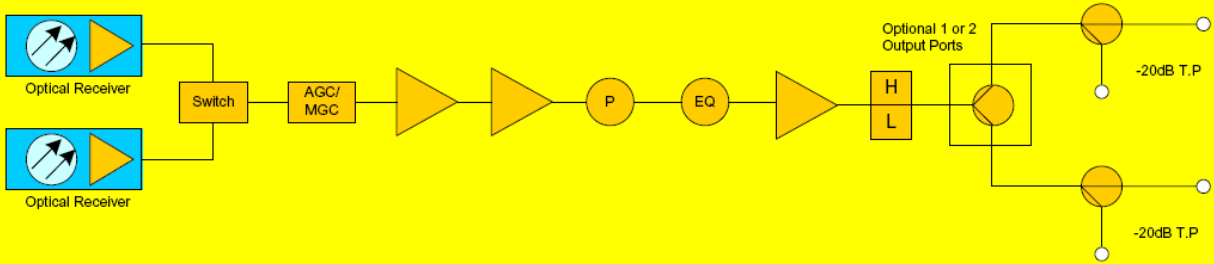
CNR	dB	>45
CSO	-dBc	>45
CTB	-dBc	>45

**Electrical/Physical/Environmental Performance**

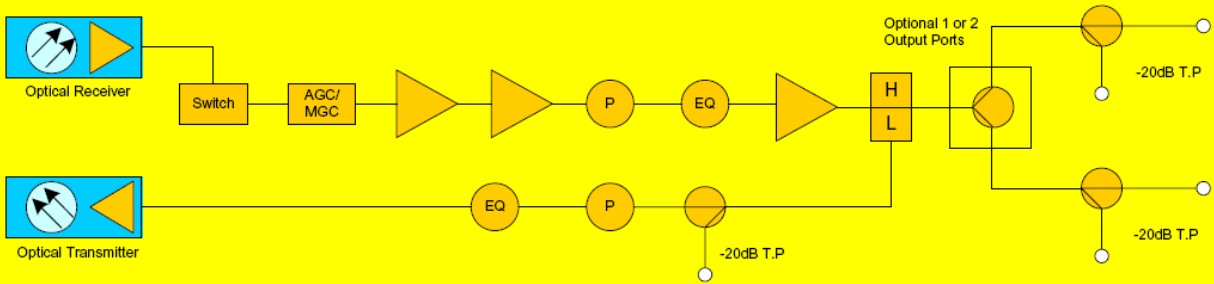
Supply voltage	VAC	90-260
Power consumption	W	<23
Dimensions	mm	L x H x W, 252 x105 x197
Weight	Kg	3
Operating temperature	°C	-20 to +60
Storage temperature	°C	-40 to +85
Humidity	%	95%, non-condensing

# Block Diagram

Option 1: Redundant Receivers



Option 2: Return Transmitter



# Ordering Information

VPN2000	--	X	--	X	--	XX	--	XX
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**Type:**  
VPN2000: 2 ports  
VPN2000S:1 port

**Frequency:**  
0: None  
4: 42/54  
6: 65/85

**Module setting:**  
A: 1 FRX  
B: 2 FRXs  
C: 1 FRX + 1 RTX

**Return transmitter:**  
00:None  
L1:1310 FP, 1mW,w/o iso  
L2:1310 FP, 1mW,w iso  
L3:1310 FP, 2mW,w/o iso  
L4:1310 FP, 2mW,w iso  
L5:1550 FP, 1mW,w/o iso  
L6:1550 FP, 1mW,w iso  
L7:1550 FP, 2mW,w/o iso  
L8:1550 FP, 2mW,w iso  
L9:1310 DFB, 2mW,w iso  
LA:1550 DFB, 2mW,w iso  
47-61:CWDM, 2mW,w iso

**Power Option:**  
M1: Mains North America  
M2: Mains Europe  
M3: Mains China  
M4: Mains Argentina