

1 GHz Indoor High Output Optical Node

LBVM900 SERIES

LINDSAY
BROADBAND

The LBVM900 high output optical node is designed for various applications from HFC to advanced fiber deep FTTH architecture networks. The LBVM900 node features a 1000 MHz bandwidth, high RF output level up to 50 dBmV (110 dBμV) and a wide selection of return lasers including CWDM wavelengths as an option to overcome fiber limitations in a network for two-way services. All of these features and flexibility are packaged in a compact, diecast aluminum housing.

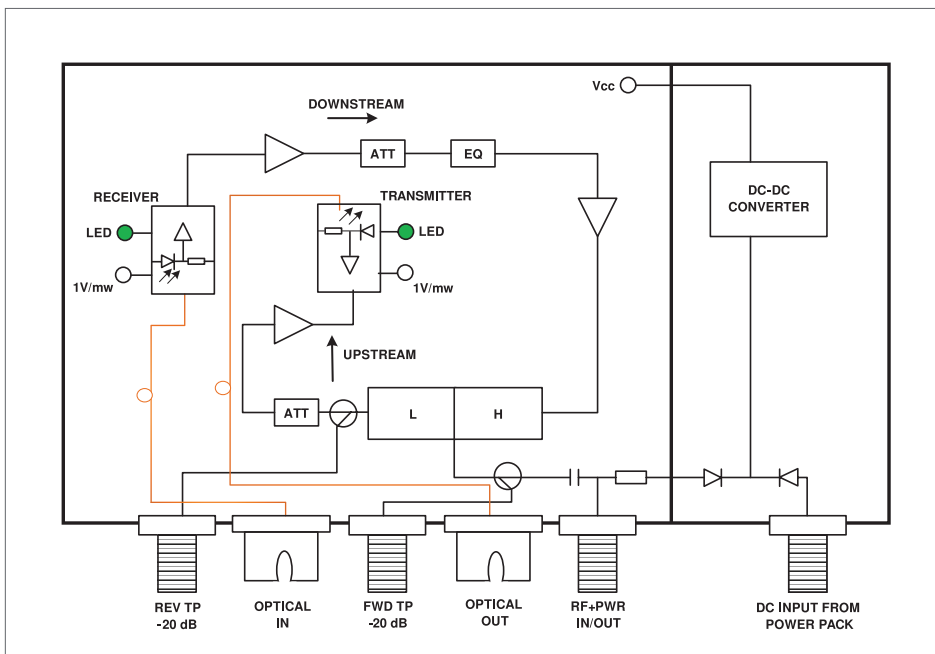


LBVM900
(front angled view)

FEATURES

- 1002 MHz high output with GaAs technology
- High RF output 50 dBmV (110 dBμV)
- Optional WDM technology available for bi-directional services on a single fiber
- Compact, diecast aluminum housing
- Superior heat dissipation
- Low power consumption
- I/O optical level test points
- -20 dB directional coupler test points for forward & reverse RF

FUNCTIONAL SCHEMATIC





SPECIFICATIONS

Parameter	Specification
Forward Receiver	
Optical Receive Wavelength	1200-1600 nm
Monitor Voltage	1 V/mW
Optical Input	-6 to +2 dBm
Optical Input Return Loss (Min)	45 dB
RF Frequency Range ⁽¹⁾	54-1002 MHz
Flatness of Frequency Response (f = fmin-1218 MHz)	± 0.75 dB
Output Return Loss (f = fmin-1218 MHz)	16 dB
Reference Output Level (± 2 dB @ -1 dBm optical input)	36-50 dBmV
Slope (± 1 dB)	14 dB
C/N ⁽²⁾	50 dB
CTB ⁽²⁾	-64 dB
CSO ⁽²⁾	-60 dB
Return Transmitter	
Optical Wavelength (CWDM available)	1310, 1550, or 1610 nm
Optical Output Power (DFB laser)	2 or 3 mW
Optical Output Return Loss	45 dB
RF Input Level (total power) ⁽³⁾	10-25 dBmV
RF Input Frequency Range ⁽¹⁾	5-42 MHz
Flatness of Frequency Response (f = 5-fmax MHz)	± 0.75 dB
Input Return Loss (f = 5-fmax MHz)	16 dB
Power, Environmental & Physical	
Total Power Consumption (30 VDC power pack)	< 14 W
Operating Humidity	5-95%, non-condensing
Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Dimensions (H x W x D)	4.7"H x 8.3"W x 3.1"D (12.0H x 21.0W x 8.0D cm)
Weight	2.2 lb (1.0 kg)

NOTES:

- (1) Other duplex splits available; 65/85 MHz, 85/102 MHz
- (2) -1 dBm optical input; 3.5% OMI/CH; channel loading 54-550 MHz analog channels & digital compressed or equivalent broadband noise above 550-1002 MHz at levels 6 dB below equivalent video
- (3) NPR @ 38 dB. Measured using a receiver with an equivalent input noise (EIN) of < 2.5 pA/Hz^{0.5} with a link budget of 6 dB (10 km fiber + passive loss)



ORDERING INFORMATION

	# of Fibers	Laser Type	TX Power	TX Wavelength	Sub-Split	Optical Connector	Power Adapter	FTTM Packaging
LBVM900	x	D	x	xx	xx	xx	x	xx
	S = Single (WDM) D = Dual (RX & TX fibers)	D = DFB	2 = 2mw 3 = 3mw	31 = 1310 nm 47 = 1470 nm 49 = 1490 nm 51 = 1510 nm 53 = 1530 nm 55 = 1550 nm 57 = 1570 nm 59 = 1590 nm 61 = 1610 nm	45 = 42/54 68 = 65/85 81 = 85/102	SA = SC/APC SU = SC/UPC	0 = None 1 = N. America 2 = Europe	00 = None 01 = Wall Mount Closure 02 = Wall Mount Closure with 10-Hr UPS