

1.2 GHz Customer Premise RFoG ONU

LBON320AC SERIES

LINDSAY
BROADBAND

Lindsay's RFoG product family includes several optical network units (ONUs). The LBON320AC device is a 1218 MHz, DOCSIS® 3.1, compact, bi-directional optical node that provides the ideal platform for delivering upstream and downstream DOCSIS, voice, video and high-speed data services over FTTx applications. The LBON320AC ONU includes Automatic Gain Control (AGC), burst-mode return lasers, and optional bandwidth splits.

FEATURES

- Input Optical Wavelength: 1550 nm
- Optical AGC: -6 to +2 dBm
- Thermally stable DFB burst-mode laser
- Transmit Wavelengths: 1610 nm, 1310 nm or CWDM
- Downstream Bandwidth: 54/85/105 MHz to 1218 MHz
- Upstream Bandwidth: 5 MHz to 42/65/85 MHz
- Output RF Level: 20 dBmV/CH (typ.)
- Input RF Level: 20-40 dBmV/CH
- RF Bi-directional Test Point: -20 dB
- Supply Voltage: 12-15 VDC
- Pwr-On, Opt I/P, Opt TX LED indicators
- Optional UPS available



LBON320AC
(front angled view)

ORDERING INFORMATION

	Fwd Output Level	Total Return Input Power	Laser Type	TX Power	Optical Connector	TX Wavelength	Sub-Split	Power Adaptor
LBON320AC	xx	xx	D	x	xx	xx	xx	xx
	20 = 20 dBmV	25 = 25 dBmV	D = DFB	2 = 2 mW	SA = SC/APC	31 = 1310 nm	45 = 42/54	00 = None
	36 = 36 dBmV	30 = 30 dBmV		3 = 3 mW		61 = 1610 nm	68 = 65/85	01 = N. America
						xx = CWDM	81 = 85/102	02 = Europe



SPECIFICATIONS

Parameter	Specifications		
	Min	Typ	Max
Forward Receiver			
Optical Receive Wavelength	1540-1565 nm		
Monitor Voltage	1 V/mW		
Optical Input Power	-6 to +2 dBm		
Frequency Range ⁽¹⁾	54-1218 MHz		
Flatness of Frequency Response	f = fmin-1218 MHz		± 1 dB
Output Return Loss	f = fmin-1218 MHz	16 dB	
Reference Output Level	@ 1000 MHz (± 2 dB)		20 dBmV
Slope	± 1 dB		6 dB
Optical Input Return Loss	45 dB		
C/N ⁽²⁾	50 dB		
CTB ⁽²⁾			
CSO ⁽²⁾			
Return Transmitter			
Optical Wavelength	1310 nm, 1610 nm or CWDM		
Optical Output Power	2 mW		3 mW
RF Input Level	Total power	20-40 dBmV	
Dynamic Input Range ⁽³⁾		18 dB	
Frequency Range (optional)	5 MHz		42 MHz
Flatness of Frequency Response	f = 5-42 MHz		± 0.75 dB
Input Return Loss	f = 5-42 MHz	16 dB	
Optical Output Return Loss	45 dB		
Laser ON	± 1.5 dB		15 dBmV
Laser OFF	± 1.5 dB		-4 dBmV
Power, Environmental & Physical			
Total Power Consumption	15 VDC power pack		≤ 4.2 W
Operating Humidity	5-95%, non-condensing		
Operating Temperature	-40°C to +65°C (-40°F to +149°F)		
Dimensions (H x W x D)	4.1"H x 6.7"W x 1.5"D (10.4H x 17.0W x 3.9D cm)		
Weight	0.3 kg (0.7 lb)		

NOTES:

- (1) Other diplex splits available: 65/85 MHz & 85/102 MHz
- (2) -1 dBm optical input; 3.5% OMI/CH; 54-550 MHz analog channels & digital compressed channels above 550-1218 MHz at levels 6 dB below equivalent video
- (3) NPR at 30 dB. Measured using a receiver with an equivalent input noise (EIN) of <2.5 pA/Hz0.5 with a link budget of 23 dB (20 km fiber + passive loss). NPR test performed with 37 MHz noise loading