

LB-ON-300AC/400AC

CUSTOMER PREMISE RFoG ONU

LINDSAY
BROADBAND

Lindsay Broadband RFoG
Optical Network Unit

Leverage the benefits of RF over Glass (RFoG) with this standalone node for single subscribers



The *Lindsay Broadband* RFoG product family includes several optical network units (ONU's). LB-ON-300AC is a compact bi-directional optical node, the ideal platform for delivering upstream and downstream DOCSIS, voice, video and high speed data service over FTTX applications. The LB-ON-300AC includes Automatic gain control (AGC), Burst Mode Return Lasers, and optional bandwidth splits. The LB-ON-400AC has the Optional PON Pass-through port.

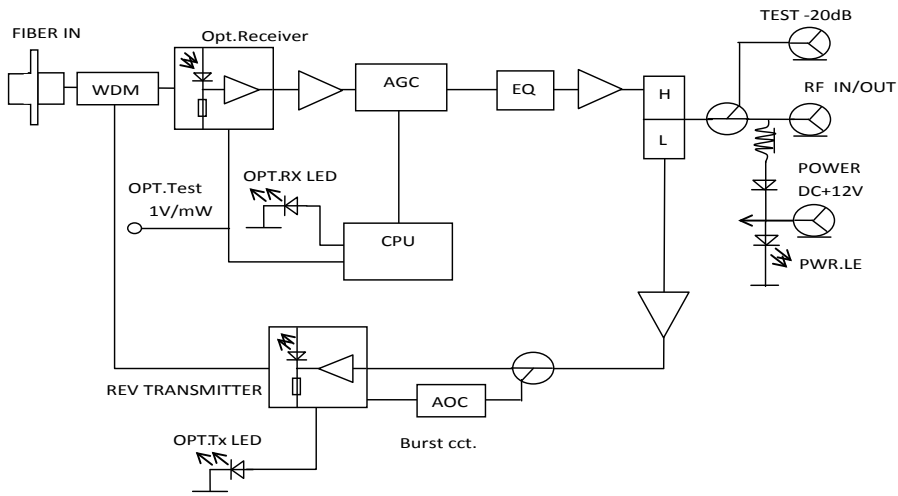
Standards compliant and *Lindsay TOUGH*.

FEATURES

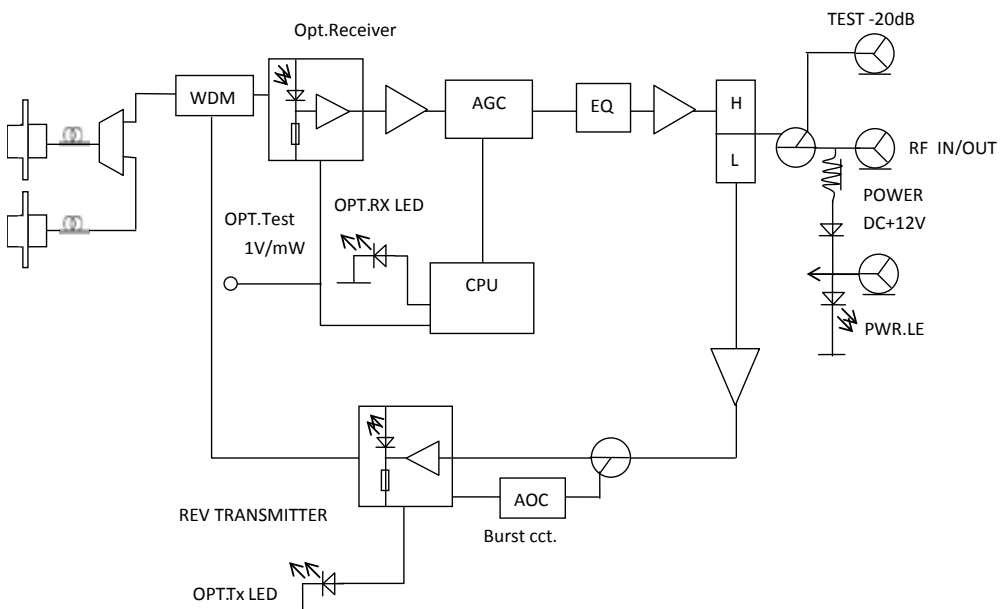
- Input optical wavelength: 1550nm
- Optical automatic gain control (AGC), -6 to +2dBm
- Laser type; Burst mode FP or DFB
- Output wavelength: 1610nm, 1310nm or CWDM
- Optional PON pass through port
- Downstream bandwidth: 54/85/105 MHz to 1002 MHz
- Upstream bandwidth: 5MHz to 42/65/85 MHz
- Outout RF signal level, 18dBmV/Ch (typ.)
- Input RF signal level, 20 to 40dBmV/Ch
- RF bi-directional test point, -20dB
- Supply power, 12 voltage DC
- Power-on, Optional I/P, Optical Tx LED indicators
- Optional UPS available.



Block Diagram



LB-ON-300AC



LB-ON-400AC

Specifications

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
FORWARD RECEIVER					
Optical Wavelength		1540 ~ 1565			nm
Monitor Voltage	$\lambda=1550$		1		V/mW
Optical Input Power	Optical AGC	-6 to 2			dBm
Frequency Range (optional)	(Note1)	54		1002	MHz
Flatness of Frequency Response	f=54 to 1000MHz		± 0.75		dB
Output Return Loss		16			dB
Reference Output Level	± 2 dB		18		dBmV
Slope			5		dB
Optical Input Return Losses		45			dB
C/N	(-1dBm optical input, 3.5% OMI/ch, 79ch NTSC, Digital ch above 550MHz at -6dB offset)	50	51		dB
CTB				-65	dB
CSO				-60	dB
RETURN TRANSMITTER					
Optical Wavelength		1310, 1610 or CWDM			nm
Optical Output Power		≥ 2			mW
RF Input Level		20-40			dBmV
Dynamic Input Range	NPR ≥ 38		20		dB
Frequency Range (optional)		5		42	MHz
Flatness of Frequency Response	f=5 to 42MHz		± 0.75	± 1	dB
Input Return Loss	f=5 to 42MHz	16			dB
Optical Output Return Loss		45			dB
Power at which LaserTurn ON	(Note2)		15		dBmV
Power at which LaserTurn OFF	(Note2)		-4		dBmV
GENERAL PARAMETERS					
Total Power Consumption	With 12V DC power pack		3.8		W
Operating Mounting Base Temperature	Humidity 5% to 95%, non condensing	-20		55	$^{\circ}\text{C}$
<p>Note 1: 42/54MHz; (Other options; 65/85MHz; 85/105MHz)</p> <p>Note 2: Burst Mode parameters can be adjusted to customers request.</p>					

Note: Specifications subject to change without notice

Ordering Information

LB-ON-300AC ONU ORDERING MATRIX

	Fwd Output Level	Return Input Level	Laser Type	Tx Power	Optical Connector	Tx wavelength	Sub Split	Power Adapter
LB-ON-300AC	XX	XX	X	X	XX	XX	XX	XX
LB-ON-400AC	18 = 18dbmv	20= 20dbmv	F= FP	1= 1mw	SA= SC/APC	31= 1310nm	45= 42/54	00= None
	20= 20dbmv	25= 25dbmv	D=DFB	2= 2mw	SU= SC/UPC	47= 1470nm	68= 65/85	01= North America
	25= 25dbmv	30= 30dbmv		3= 3mw	FA= FC/APC	49= 1490nm	81= 85/105	02= Europe
		35= 35dbmv			FU= FC/UPC	51= 1510nm		
						53= 1530nm		
						55= 1550nm		
						57= 1570nm		
						59= 1590nm		
						61= 1610nm		

Note: LB-ON-400AC has PON pass thru port