

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.

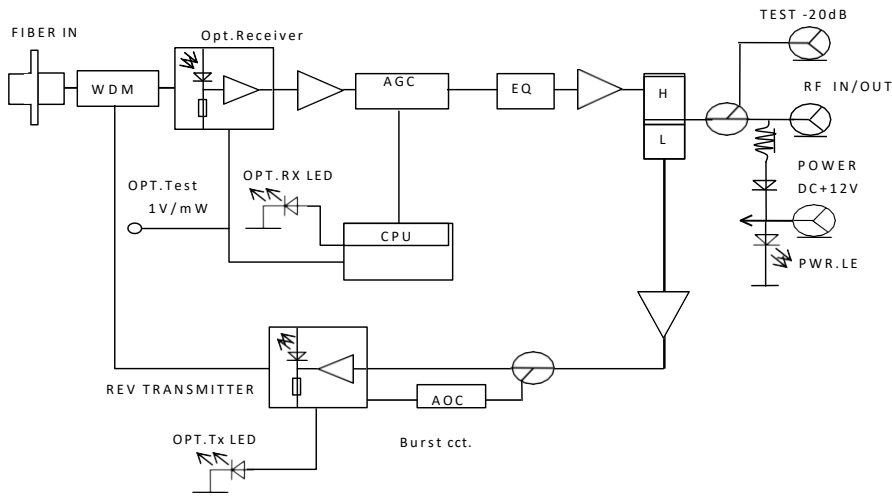
Standards compliant and *Lindsay TOUGH*.

FEATURES

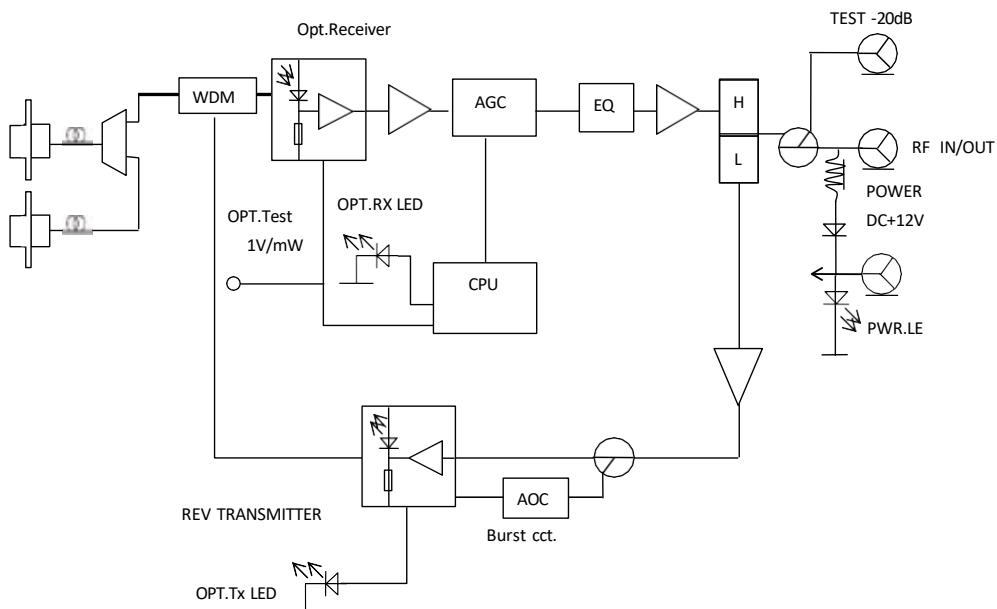
- Input optical wavelength: 1550nm
- Optical automatic gain control (AGC), -6 to +2dBm
- Laser type; Burst mode FP or DFB
- Output wavelength: 1610nm, 1310nm or CWDM
- Optional PON pass through port
- Downstream bandwidth: 54/85/105 MHz to 1002 MHz
- Upstream bandwidth: 5MHz to 42/65/85 MHz
- Outout 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 | °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

