# GLB2000A Satellite TV FTTH Optical LNB

**What is Optical LNB or Fiber LNB?** Regular **LNB** is **L**ow **N**oise **B**lock, converting Ku Band 10.7GHz~12.75GHz RF or C Band 3.7GHz~4.2GHz RF to 950MHz~2150MHz IF for sat receiver. At SMATV over fiber system, one transmitter converts LNB IF to fiber. After fiber optic amplifier and PON, optic signal is distributed to hundreds or thousands of FTTH families. At each home with fiber cable, one optical receiver converts fiber to Sat IF. Fiber input turns to 950MHz~2150MHz IF output for sat receiver.

Satellite optical receiver plays the same role as regular LNB, it is a "virtual" LNB at home. Satellite optical receiver can be called as Optical LNB or Fiber LNB.

Regular LNB is installed at dish facing the sky. Optical LNB is installed anywhere in home where fiber is available. The contents of one regular LNB can be re-produced up to 500K optical LNBs

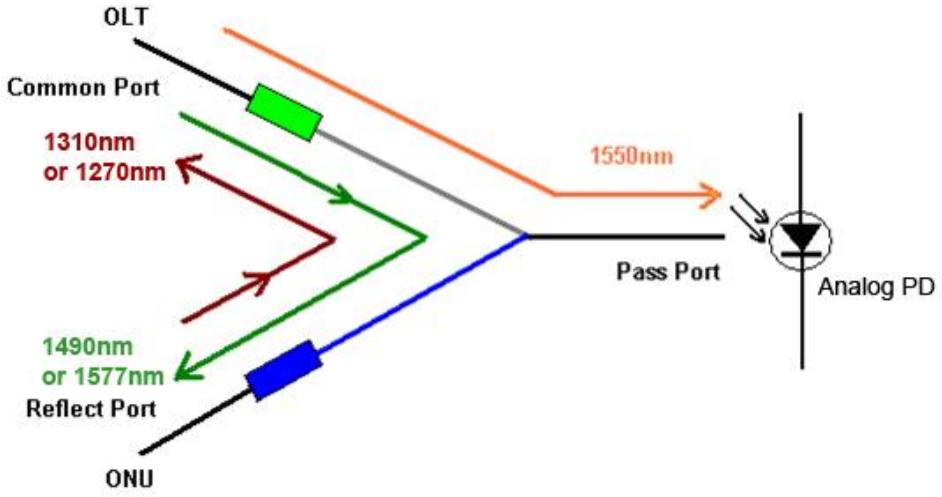
Regular LNB has vertical or horizontal polarities (13V/18V) and higher band or lower band (0Hz or 22KHz). By means of CWDM/DWDM technology, optical LNB can has the same function RF port from one SM fiber.

GLB2000A satellite TV FTTH optical LNB converts optical signal into two polarities RF for one satellite receiver. Working with Greatway GLB3500A-2T satellite TV fiber optic transmitter, GLB2000A outputs high quality Terrestrial TV+ Vertical/Horizontal RF signal. This ftth LNB can switch Vertical (or RHCP) or Horizontal (or LHCP) output signal by the 13V or 18V DC power from satellite receiver.

GLB2000A has 1310nm/1490nm WDM option for co-working with GPON/EPON ONU in any FTTH case, which enables inserting DTT+SAT over GPON/EPON network.

**Features:**

- Compact plastic flame retarding housing
- High Linearity Photodiode
- SC/APC fiber input
- Optical AGC range: -6dBm ~ +1dBm
- Sat RF Bandwidth: 950MHz~2150MHz
- Terrestrial TV RF Bandwidth: 174~806MHz
- Terrestrial TV + Horizontal (LHCP)@18V DC from satellite receiver
- Terrestrial TV + Vertical (RHCP)@13V DC from satellite receiver
- Optional WDM port to GPON ONU




## Specifications

| Item | Parameter |
|---|---|
| Input Optical Wavelength | 1000~1600 nm |
| Working Optical Power | -14dBm ~ +2dBm |
| AGC Range | -6dBm ~ +1dBm Optical Input |
| Optical Connector | SC/APC |
| Optical Return Loss | 45 dB |
| RF Bandwidth | Sat: 950~2150MHz<br>Terrestrial TV: 174~806MHz |
| RF Flatness | Sat: ±3.0dB@950~2150MHz, ≤1.5dB @any 36MHz<br>Terrestrial TV: ±2.0dB |
| RF Return Loss | >10 dB |
| RF Connector | American F Female |
| RF Output Impedance | 75Ω |
| RF Output Level | >75dBμV @ (-6dBm ~ +1dBm) |
| IMD 2nd order | ≥32dB (two input tones at -10 dBm) |
| IMD 3RD order | ≥53dB (two input tones at -10 dBm) |
| Power Supply | Powered by sat receiver |
| Power Consumption | <2.8W |
| Power LED Indicator | Orange@13V DC and Output Vertical + Terr TV |

| | |
|---|---|
| | Green@18V DC and Output Horizontal + Terr TV |
| Optical Input LED | Red when input optical power < -12dBm<br>Green when input optical power > -12dBm |
| Working Temperature | -10 ~ +50℃ |
| Storage Temperature | -40 ~ +85℃ |
| Humidity | ≤95% |
| Dimension (L*W*H) | 106mm×62mm×25mm |
| Weight | 100g |

## Ordering Information

GLB2000A-X Satellite TV FTTH optical LNB for one satellite receiver in one home

X(GPON Option): None_ No WDM port to ONU, K_ one WDM fiber port to ONU