

GLB3500M SMATV RF Fiber Link

Direct Broadcasting Satellite (DBS) and Direct to Home (DTH) are the most popular way to enjoy satellite TV worldwide. To do it, satellite antenna, coaxial cable, splitter or multi-switcher and satellite receiver are necessary. However, satellite antenna installation might be difficult to the subscribers living in the apartments. SMATV (satellite mater antenna TV) is a good solution for people living in the building or community. With fiber cable, SMATV RF signal can be delivered to 30Km far away or distributed to 32 apartments directly, to 320 or 3200 or 32000 apartments via GWA3530 fiber optic amplifier.

GLB3500M is a modular 45~2600MHz RF over fiber link, transmitting Terrestrial TV channels and single L-Band RF over one fiber. GLB3500M consists of GLB3500MT transmitter module and GLB3500MR receiver module. GLB3500MT transmitter module has one or two RF input ports while GLB3500MR has one RF output port. With high linearity 1550nm uncooled DFB laser, photodiode and low noise RF gain control circuit, GLB3500MT can deliver high quality Terrestrial TV channels and satellite RF over fiber to a few subscribers directly or thousands of FTTH subscribers via EDFA. With 1310nm/1490nm/1550nm WDM option, GLB3500MT can insert L-Band+TV RF over GPON/GEAPON. Beside the modular version, GLB3500M can have 19"1RU version upon request. The fiber to the home plastic housing version of GLB3500MR is GFH2000 optical LNB, where FTTH subscriber just needs one fiber input and outputs one satellite RF to several rooms in the family.



Features:

- Compact aluminum die cast housing
- Single combined RF input with bandwidth:45~2600MHz or
- Two separated RF inputs, including:
 - One Terrestrial TV input, bandwidth: 174 -806 MHz
 - One LNB RF input, bandwidth: 950MHz~2150MHz (13V or 18V DC option for LNB on request)
- One RF output port
- High Linearity 1550nm uncooled DFB Laser and Photodiode
- Low noise RF Gain Control circuit
- 19" 1RU housing optional
- 1310nm/1490nm WDM interface for OLT/ONU optional

Specifications:

RF and Optical Characteristics

Parameter	Min	Typ	Max	Unit
Laser Wavelength		1550		nm
Laser Output Power	+1	+3	+4	dBm
Tx Input RF Return Loss	10	12		dB
Tx RF Input Range 20 TV channels equalized at	-55	-40	-30	dBm
Tx RF Input Range L-Band RF per transponder	-55	-40	-30	dBm
RF AGC Variation	± 2dB			
Frequency Range (L-Band)	950 - 2150MHz			
Frequency Range (Terrestrial TV)	174 -806 MHz			
Flatness	≤6.0dB in band			
Output RF Power at GLB3500MR	-30±5dBm @Receiver optical Input -10dBm			
IMD 2nd order	L-Band: ≥32dB (two input tones at -20 dBm) Terrestrial TV: ≥50dB (two input tones at -20 dBm)			
IMD 3RD order	≥53dB (two input tones at -20 dBm)			

RF/Optical Interface

RF Connector	F-Type
RF Impedance	75 Ohm
Fiber	9μm / 125μm Single Mode Fiber
Fiber Connector	SC/APC, SC/UPC, FC/APC, FC/UPC

Physical and Environmental Characteristics

Power Supply	12V 1A DC adaptor (no LNB power request) 19V 1A DC adaptor (on LNB power request) 100~240V AC (19" 1RU version)
Power Consumption	< 3W (for single Tx module or Rx module)
Dimension (for single module)	127mm×90mm×30mm (19" 1RU on request)
Weight (for single module)	0.5Kg (without power adaptor)
Operating Temperature	-10~+50°C
Storage Temperature	-40~+85°C
Relative Humidity	5~95 % (non-condensing)

Ordering Information

GLB3500MT-X-Y-Z Terrestrial TV and L-Band RF fiber optic transmitter

X (RF Input): T_Terrestrial TV input only; B_LNB input only

C_Combined Terrestrial TV and LNB RF at one RF port

D_Dual RF inputs, one for Terrestrial TV and one for LNB RF

Y (Fiber Connector): SA_SC/APC, SU_SC/UPC, FA_FC/APC, FU_FC/UPC

Z (LNB power voltage at LNB RF input port): None_No power to LNB, 13_13V DC, 18_18V DC

GLB3500MR-Z Terrestrial TV and L-Band RF fiber optic receiver

Z (Power Supply): None_No power adaptor or powered by satellite receiver, 12_12V DC