

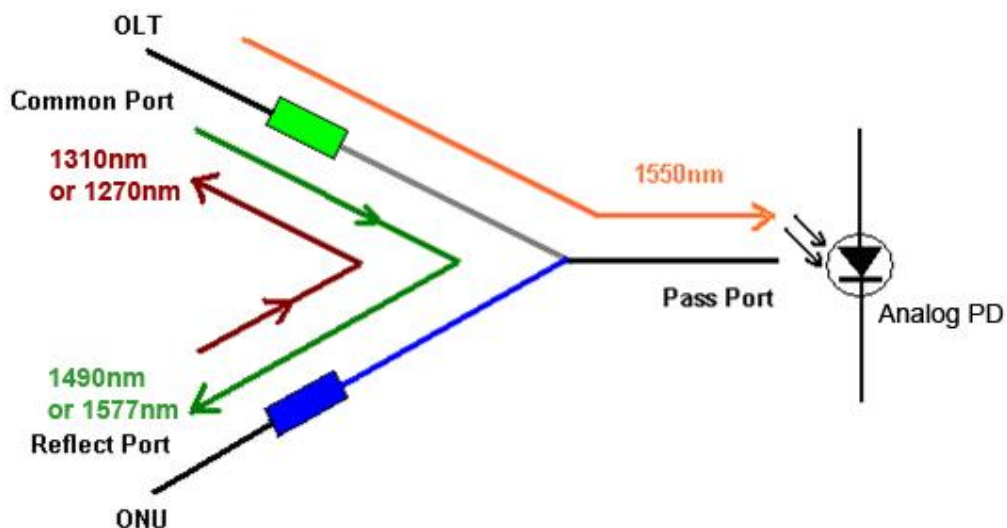
GFH1000-K FTTH Optical Node with WDM

GFH1000-K FTTH Optical Node is an optical receiver with 1310nm/1490nm GPON WDM (upgradable to 1270nm/1577nm supporting XGPON ONU), receiving 1550nm analog TV and QAM RF optical signal from Passive Optical Network (PON) while passing 1310nm/1490nm or 1270nm/1577nm digital signals to ONU device. GFH1000-K can enable Greatway ONU or any third party ONU with RF function for broadcasting RF channels.



Feature:

- Compact plastic flame retarding housing
- High Linearity Photodiode for CATV RF
- 45~1000MHz (downstream) RF Output (45~1218MHz optional)
- Optical AGC range: -10dBm ~ 0dBm
- Optional MGC range: 0~15dB
- 1310nm/1490nm Optical Bypass Port to ONU
- WDM can be upgraded to include 1270nm/1577nm reflection port for XGPON ONU
- DC Power and optical input LED indicator
- 12V DC power adapter



Specifications

Item	Parameter
Input CATV Optical Wavelength	1540~1560 nm
Reflecting Channel Wavelength	1260nm~1360nm and 1480nm~1500nm
Working Optical Power	-8dBm ~ +2dBm (Analog TV RF) -15dBm ~ +2dBm (DVB-C QAM RF)
Optical AGC Range	-10dBm ~ 0dBm
Optical Connector	SC/APC
Optical Return Loss	45 dB
RF Bandwidth	45 ~ 1000 MHz (1218MHz optional)
RF Connector	American F
RF Output Impedance	75Ω
RF Output Level	>76dBμV@-8dBm (No MGC)
MGC Range	0~15dB (Optional)
RF Flatness	± 1.0dB (45~1000MHz)
RF Return Loss	>14 dB
CNR	>46 dBc @ -6dBm (Analog TV RF)
CSO	<-63 dBc @77ch NTSC (Analog TV RF)
CTB	<-63 dBc @77ch NTSC (Analog TV RF)
MER	>34 dB @ -12dBm (BER: <1.0E-9)
Power LED	Green when DC power is ON
Optical Input LED	Red (<-15dBm) Green (-15dBm~+2dBm)
Output to ONU	
Loss at 1310nm/1490nm	<0.8dB
Isolation (Com-Pass at 1310nm)	> 35dB
Isolation (Com-Pass at 1490nm)	> 35dB
Isolation (Com-Reflect at 1550nm)	> 18dB
Output Connector	SC/APC
Optical Return Loss	>45dB
Environment	
Power Supply	12 V 0.5A (UL approved)
Power Consumption	<2W (not including power adapter)
Working Temperature	-10 ~ +50°C
Board Dimension (L*W*H)	106mm×62mm×25mm
Weight (without power adapter)	200g

Ordering Information

GFH1000-KX FTTH CATV RF Optical Receiver with WDM

X(WDM Option): None_GPON WDM only, X_ both GPON and XGPON WDM

GFH1000-K optical receiver test results in MER

Optical Rx Input	Output RF Level	MER(dB)
+2dBm	79dB μ V	38.8
+1dBm	79dB μ V	38.8
+0dBm	78dB μ V	38.8
-1dBm	78dB μ V	38.8
-2dBm	78dB μ V	38.7
-3dBm	78dB μ V	38.6
-4dBm	78dB μ V	38.6
-5dBm	78dB μ V	38.5
-6dBm	78dB μ V	38.5
-7dBm	78dB μ V	38.5
-8dBm	78dB μ V	38.4
-9dBm	78dB μ V	38.2
-10dBm	77dB μ V	38.1
-11dBm	75dB μ V	37.8
-12dBm	73dB μ V	37.7
-13dBm	71dB μ V	37.5
-14dBm	69dB μ V	37.3
-15dBm	67dB μ V	37.1
-16dBm	65dB μ V	35.9
-17dBm	63dB μ V	34.8
-18dBm	62dB μ V	33.5

Test condition: 80ch DVB-C, 64QAM, Transmitter OMI 4.0%