

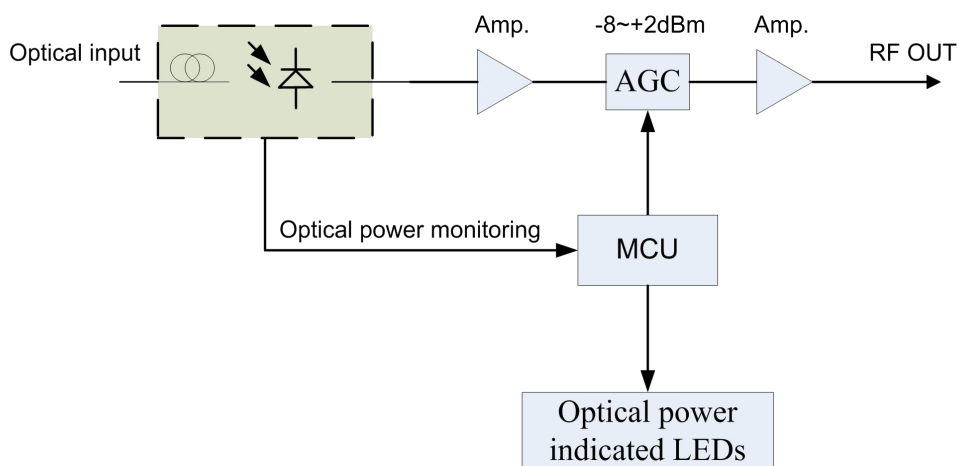
HF100-3301AF FTTH Optical Receiver



Product Overview

The HF100-3301AF is a FTTH optical receiver. The main board holds the photodiode, MMIC amplifiers and AGC circuits. The external optical input port and RF output port are easy accessible for operations.

Block Diagram



Features

- Only for 1550 nm optical input
- High quality MMIC amplifier to guarantee high performance
- Wide optical AGC range to ensure stable RF output level

Specification

Parameters	Unit	Value	Notes
Environment Feature			
Storage Temperature Range	℃	-40 ~ +85	
Operating Temperature Range	℃	-10 ~ +50	
Storage Relative Humidity		5%~95%	No Condensation
Optical Feature			
CATV Operation Wavelength	nm	1540~1563	Filter for CATV 1550nm
Reflective Wavelength	nm	1310, 1490	Internet
Channel Isolation	dB	≥ 32	1550&1490nm
Optical Return Loss	dB	≥ 55	
Responsibility	A/W	≥ 0.8	For 1310nm
		≥ 0.9	For 1550nm
Receiving Optical Power	dBm	-18~+3	
Recommended Receiving Optical Power	dBm	-15~+2	
Optical AGC Range	dBm	-8~+2	
Optical Connector Type		SC/APC	
RF Feature			
Impedance	Ω	75	
Work Bandwidth	MHz	47~1000	
Return Loss	dB	≥14	Within work bandwidth range 47~1000MHz
Flatness	dB	≤ ±1.5	
RF Output Level	dBuV	≥80±1	Within optical AGC range: -8~+2dBm for

			59CH PAL_D analog TV signals, OMI=3.2%.
AGC Control Stability	dB	$\leq \pm 1.0$	Within optical AGC range: $-8\sim+2\text{dBm}$.
CNR	dB	≥ 50	At optical power -2dBm for 59CH PAL_D analog TV signals, OMI=3.2%.
C/CSO	dBc	≤ -60	At optical power -2dBm for 59CH PAL_D analog TV signals, OMI=3.2%.
C/CTB	dBc	≤ -65	At optical power -2dBm for 59CH PAL_D analog TV signals, OMI=3.2%.
MER	dB	≥ 37	Optical power range from -8dBm to $+2\text{dBm}$, OMI=3.2%, 93CH 64 QAM digital signals, MER $\geq 40\text{dB}$.
BER	dB	$\leq 1.0\text{E}-9$	Optical power range from -15dBm to $+2\text{dBm}$, OMI=3.2%, 93CH 64 QAM digital signals, MER $\geq 40\text{dB}$.
RF Connector		F-Female	F-male optional
RF Output Port Number		1	
LED indicators			
Power Supply Indicator		Green	Green for working, no show is power down.
Input Optical Power Indicators		Green	Input optical power is higher than -16dBm or lower than $+2\text{dBm}$.
		Red	Input optical power is lower than -16dBm or higher than $+2\text{dBm}$.
Housing			
Dimension L x W x H	mm	78 x 78 x 26	
Weight	Kg	< 0.5	
Power Supply			
Input Voltage Range	VAC	100~240	Frequency 50~60 Hz
Output DC Voltage Range	V	11.4~12.6	
Output DC Current	A	0.5	MAX
Power Consumption	W	< 3	

Order Information

Product Name	Product Model	Descriptions
Optical receiver	HF100-3301AF	With AGC, With 1550nm filter, Output level 80dBuV (@ $-8\sim+2\text{dBm}@85\text{MHz}$), Input optical connector SC/APC, Bandwidth1000MHz, Plastic casing, External power supply adapter.

