

WRN-1082 series Home use optical receiver

1. Product Summary

WRN-1082 is a FTTH optical receiver which can built-in ONU module and WIFI module. Its RF amplifier circuit adopts all-GaAs MMIC device. The maximum operating frequency up to 1GHz, and the maximum output level is 80dB μ V (+2~-8dBm), support optical AGC function. The housing adopts high-strength ABS engineering plastic, DC 12V external power supply.



2. Performance Characteristics

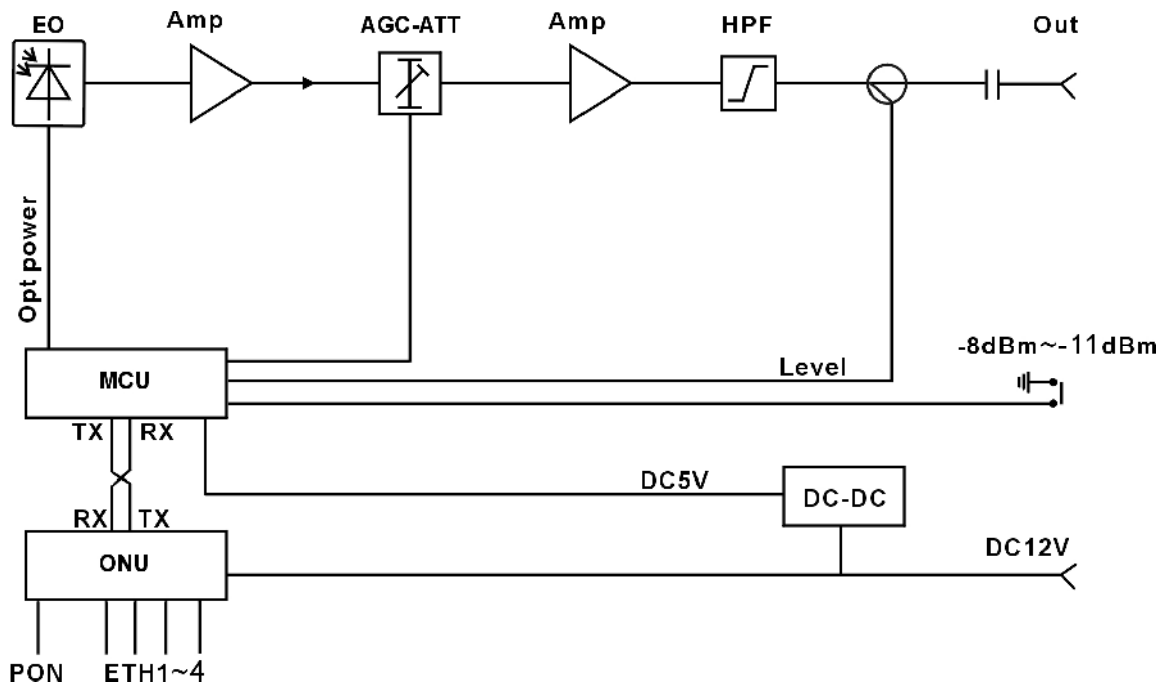
- Optical receiving part adopts E-O low noise high sensitivity PIN optical detector, and RF amplifier adopts low noise low power consumption and high performance MMIC.
- Adopt advanced optical AGC control mode, keep the output level unchanged, CTB, CSO basically unchanged in the set optical power range.
- Optical receiver and ONU are integrated in one equipment, together management, and small size.
- Adopt modular structure, easy configuration and maintenance.

3. Technique Parameter

Item	Unit	Technique Parameter	
		WRN-1082	
Optical Parameter			
Optical Receiving Power	dBm	-15~+2	
Suggested Optical Receiving Power	dBm	-10~+2	
Optical Return Loss	dB	> 45	
Optical Receiving Wavelength	nm	1100 ~ 1600	
Optical Connector Type		SC/APC	
Fiber Type		Single Mode	
Link Performance			
C/N	dB	≥ 51	P _{out} = 80dB μ V, 84CH PAL-D, OMI=3.8%
C/CTB	dB	≥ 65	

C/CSO	dB	≥ 63
RF Parameters		
Frequency Range	MHz	45 ~ 1003M
Flatness in Band	dB	±0.75
Output Level	dBμV	≥ 80 (When the input optical power is -8~+2dBm)
Output Return Loss	dB	≥ 16
Output Impedance	Ω	75
Input Voltage	V	DC12V
Consumption	W	≤ 6 (with ONU)
Dimension	mm	200*135*40

4. Block Diagram



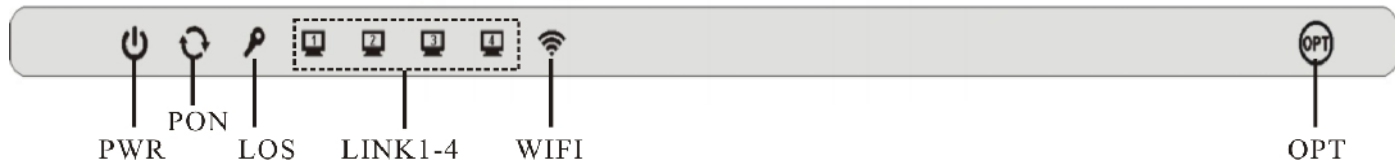
5. Products Diagram



1. RF output port	2. Output ATT button (Note1)	3. Fiber input
4. PON port	5. Internet access	6. Reset
7. Power switch	8. DC12V in	9. WiFi antenna

Note1: This button is used to set the AGC start control value, factory default is -8~+2. Control range: -8(-9/-10/-11) ~+2. AGC range per reduce 1dBm, the output level is raised by 2dBμV. (eg. -9~+2dBm ----78dBμV; -8~+2dBm ----80dBμV).

Indicator Description:



Indicator	Description	Function	
		State	Meaning
PWR	Power indicator	OFF	Not power on
		ON	Power on
PON	System Registration indicator	OFF	Abnormal connection
		ON	Normal connection
LOS	Optical interface LOS indicator	OFF	Normal connection
		Flash	Abnormal connection
LINK1-4	Ethernet indicator	OFF	Not connect with device
		Flash	Data communication
WIFI	WIFI indicator	OFF	Abnormal
		Flash	Normal
OPT	Optical power indicator	Bright orange	Optical power lower than AGC range
		Bright green	Normal optical power
		Bright red	Optical power higher than AGC range