

## FTTH Optical Receiver Product

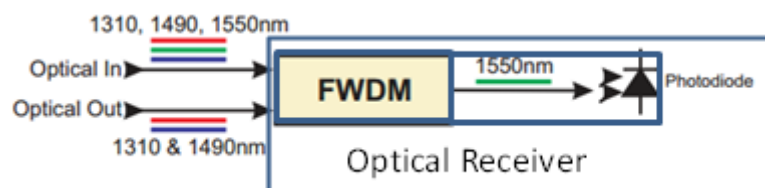


The left is built-in WDM type, The right type without WDM

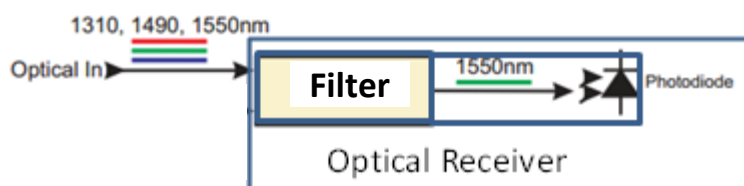
### Brief Views

The OR100 series FTTH optical receiver is a highly linear optical to electrical converter for use in FTTH applications. The OR100 series use a high gain, low distortion receiver PD and low noise RF circuit to deliver high RF level output at lower optical power, provide good CNR, CSO and CTB distortion specifications. With compact design, OR100 can reach to 1000Mhz bandwidth.

- **AGC:** Automatic Gain Control (AGC) circuits is to provide a relatively constant output amplitude of CATV signals. OR100A and OR100AW optical receiver built in AGC function to enable RF output tolerance in 2dB even when optical input power various from -8dBm to 0dBm
- **Built-in WDM:** The 1550 nm broadcast analog video signal can be delivered over P2MP GPON or GEPON network by using WDM technology. The built-in WDM optical receiver has the one optical input port and one PON output port. The optical input contains downstream forward path CATV signals at 1550nm, downstream Ethernet data at 1490nm and upstream Ethernet data at 1310nm. The optical output passes the 1310nm and 1490nm signals. The 1550nm wavelength goes to a photodiode and is amplified.



- **Built-in 1550nm Filter:** The 1550 nm broadcast analog video signal can be delivered over P2MP GPON or GEPON network by using WDM technology. The built-in 1550nm Filter optical receiver has the one optical input, and the Filter built in the PD can pass 1550nm wavelength and block 1490nm wavelength.



## Products Series

Model	AGC Function	RF output level	FWDM /Filter	Input	Output	
					Optical	RF
OR100M	NA	84dBuV (@-5dBm@85MHz)	NA	1*SC/APC	NA	1*F TYPE
OR100MW	NA		FWDM	1*SC/APC	1*SC/PC	1*F TYPE
OR100MF	NA		Filter	1*SC/APC	NA	1*F TYPE
OR100ML	NA	81dBuV (@-10dBm@85MHz)	NA	1*SC/APC	NA	1*F TYPE
OR100MWL	NA		FWDM	1*SC/APC	1*SC/PC	1*F TYPE
OR100MFL	NA		Filter	1*SC/APC	NA	1*F TYPE
OR100A	Support	78dBuV (@-12~-2dBm@85MHz)	NA	1*SC/APC	NA	1*F TYPE
OR100AW	Support		FWDM	1*SC/APC	1*SC/PC	1*F TYPE
OR100AF	Support		Filter	1*SC/APC	NA	1*F TYPE

## OR100M Series

Item	Parameter
CATV Input Optical Wavelength	1100~1600 nm(OR100M)
	1540~1560 nm(OR100MW, OR100MF)
Pass PON Optical Wavelength	1490nm/1310nm (OR100MW)
Working Optical Power	-15dBm~0dBm
Optical Connector	SC/APC (Optical input)
	SC/PC (PON port for OR100MW Type)
Optical Return Loss	>45db
RF Bandwidth	47 ~ 1000 MHz
RF Connector	F-Type Female
RF Output Impedance	75Ω
RF Output Level	84dBuV (@-5dBm@85MHz)
Manual RF Adjust	Optional, 0-20dB
RF Flatness	± 1dB
RF Return Loss	>14dB
Analog TV RF CNR	>47dB (@-5dBm@ DS22 channel)
CSO	>60dBc (@-5dBm@ DS22 channel)
CTB	>60dBc (@-5dBm@ DS22 channel)
Power Supply	12VDC/ 0.5A Power Adaptor
Power Consumption	<3W
Working Temperature Range	0 ~ +50℃
Dimension (L*W*H)	110mm(L) x 89mm(W) x 30mm (H)
Weight	<0.1 Kg


**OR100L Series**

Item	Parameter
CATV Input Optical Wavelength	1100~1600 nm(OR100ML)
	1540~1560 nm(OR100MWL, OR100MFL)
Pass PON Optical Wavelength	1490nm/1310nm (OR100LW)
Working Optical Power	-18dBm~-9dBm
Optical Connector	SC/APC (Optical input)
	SC/PC (PON port for OR100LW Type)
Optical Return Loss	>45db
RF Bandwidth	47 ~ 1000 MHz
RF Connector	F-Type Female
RF Output Impedance	75Ω
RF Output Level	81dBuV (@-10dBm@85MHz )
Manual RF Adjust	Optional, 0-20dB
RF Flatness	≤± 1dB
RF Return Loss	>12dB
Analog TV RF CNR	>41dB (@-10dBm@DS22 channel)
CSO	>60dBc (@-10dBm@DS22 channel)
CTB	>60dBc (@-10dBm@DS22 channel)
Power Supply	12VDC/ 0.5A Power Adaptor
Power Consumption	<3W
Working Temperature Range	0 ~ +50°C
Dimension (L*W*H)	110mm(L) x 89mm(W) x 30mm (H)
Weight	<0.1 Kg


**OR100A Series**

Item	Parameter
CATV Input Optical Wavelength	1100~1600 nm(OR100A)
	1540~1560 nm(OR100AW, OR100AF)
Pass PON Optical Wavelength	1490nm/1310nm (OR100AW)
Working Optical Power	-18dBm~0dBm
Optical Connector	SC/APC (Optical input)
	SC/PC (PON port for OR100AW Type)
Optical Return Loss	>45db
RF Bandwidth	47 ~ 1000 MHz
RF Connector	F-Type Female
RF Output Impedance	75Ω
RF Output Level	78dBuV (@-12~-2dBm@85MHz)
Manual RF Adjust	Optional, 0-20dB
RF Flatness	≤± 1dB
RF Return Loss	>12dB

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Analog TV RF CNR	>41dB (@-10dBm@DS22 channel)
CSO	>60dBc (@-10dBm@DS22 channel)
CTB	>60dBc (@-10dBm@DS22 channel)
Power Supply	12VDC/ 0.5A Power Adaptor
Power Consumption	<3W
Working Temperature Range	0 ~ +50°C
Dimension (L*W*H)	110mm(L) x 89mm(W) x 30mm (H)
Weight	<0.1 Kg