



MX OPTICAL TO RF CONVERTER

The MX-O2RF-C-WD is an Optical to RF Converter. It requires no external power or batteries. It uses photoelectric energy from the laser source for power. This small, handy and inexpensive device can be carried by every technician for fast and simple troubleshooting and/or converting a fiber optic signal to an RF signal. Used in FTTx applications and commonly used by CATV field, network and headend technicians where fiber is becoming more commonly used.

- No Power required
- Bandwidth of 45 – 1050 MHz
- 1550nm Receiver
- Pass GPON wavelengths 1310-1490nm
- Converts Fiber Signal to RF



*Note: This device is compatible with all analog optical transmitters used to transmit analog and digital RF carriers. It is not designed to receive data only signals such as 1gig, 10gig or Ethernet type circuits...

	Optic feature	Unit	Index	Supplement
Optic feature	Operating wavelength	(nm)	1540~1563 1310~1490	Forward receiver GPON pass wavelength
	Channel Isolation	(dB)	≥40	1550nm&1490nm
	Response	(A/W)	≥0.85	1310nm
			≥0.9	1550nm
	Receiving power	(dBm)	+2~-14	
	Optical return loss	(dB)	≥55	
	Optical fiber connector		SC/APC	
RF Feature	Work bandwidth	(MHz)	45~1050MHz	
	Output level	(dBmV)	>8	Digital TV (Pin=-1dBm)
	Return loss	(dB)	≥14	47~862MHz
	Output impedance	(Ω)	75	
	Output port number		1	
	RF tie-in		F-Female	
	DigitalTV feature	OMI	(%)	4.3
MER		(dB)	≥38	Pin=-1dBm
			≥30	Pin=-13dBm
BER		<1.0E-9	Pin:+2~-14dBm	
General feature	Operating temp	(°C)	-20~+55	
	Storage temp	(°C)	-40~85	
	Operating relative temp	(%)	5~95	
	Size (W)×(D)×(H)	(mm)	50×88×22	C Type (Box Style)

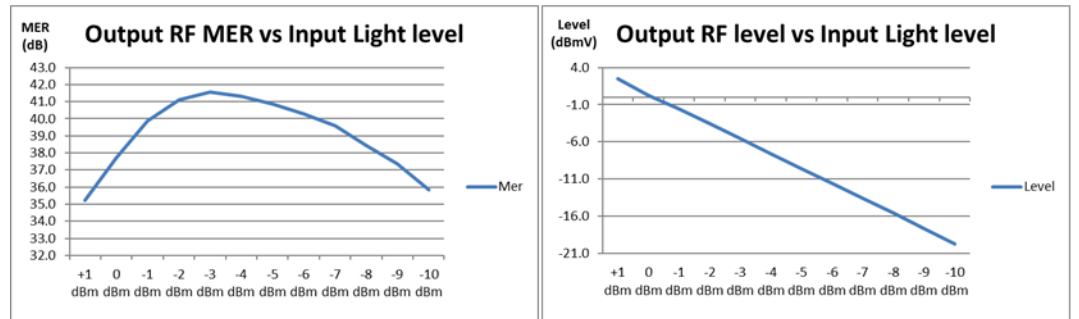
MX-O2RF-C-WD

Test data:



The Maxcom MX-O2RF-C-WD series CATV optical receiver supports a bandwidth of 47~1050MHz. It requires no external power to operate. It is a low cost option used to deliver forward path CATV RF signals. It will provide a typical output level suitable to support digital QAM signals when the input optical receive power is +2~-8dBm. Receiver is typically used in FTTH applications, for residential and business applications, and includes a GPON port that will allow the GPON wavelengths of 1310/1490nm to pass through to an ONU if desired. Works well for Residential, Schools, Hospitality and Government applications. As an RF/ Cable TV optical receiver unit, it provides a high index, and no power consumption at a very low cost.

	Ch 3 67 MHz		Ch 62 453 MHz		Ch 131 837 MHz		Average	
	Level	Mer	Level	Mer	Level	Mer	Level	Mer
Base line test	13.1	43	12.8	43	12	43	12.6	43.0
+1 dBm	4.6	40.8	3	33.5	0	31.4	2.5	35.2
0 dBm	1.7	42.6	0.6	36.7	-1.7	33.9	0.2	37.7
-1 dBm	-0.2	43	-1.2	39.7	-3.4	36.9	-1.6	39.9
-2 dBm	-2.2	42.4	-3.2	41.7	-5.3	39.2	-3.6	41.1
-3 dBm	-4.3	42.4	-5.2	42.1	-7.2	40.2	-5.6	41.6
-4 dBm	-6.3	41.7	-7.2	41.9	-9.4	40.4	-7.6	41.3
-5 dBm	-8.4	41.4	-9.2	41.5	-11.3	39.7	-9.6	40.9
-6 dBm	-10.3	40.6	-11.2	41.1	-13.3	39.1	-11.6	40.3
-7 dBm	-12.3	40.1	-13.2	40.3	-15.3	38.3	-13.6	39.6
-8 dBm	-14.3	38.8	-15.1	39.6	-17.3	36.9	-15.6	38.4
-9 dBm	-16.3	37.9	-17.2	38.6	-19.4	35.6	-17.6	37.4
-10 dBm	-18.4	36.6	-19.3	37.2	-21.4	33.7	-19.7	35.8



*Note, levels may vary significantly depending on signal type, OMI and other transmitter settings within your network. 256QAM referenced in test data above, analog signals will typically have a 6 dB higher RF level.

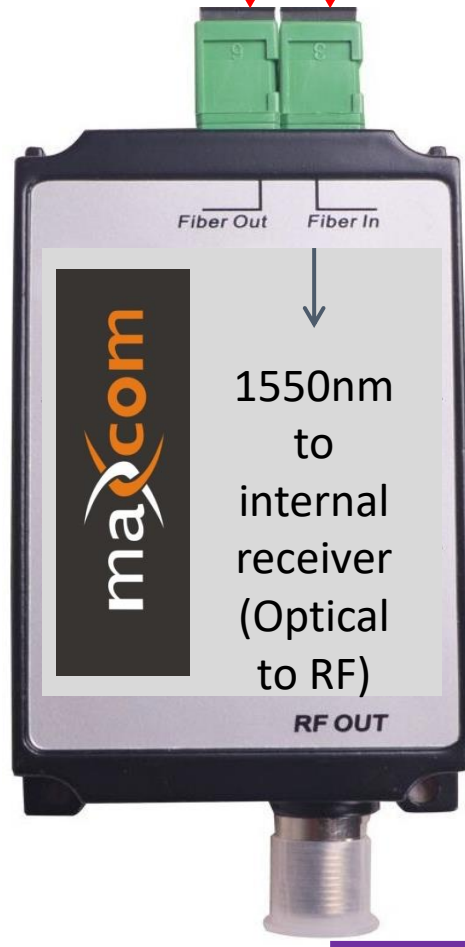


Fiber out 1310/1490
(GPON)

Fiber in 1310/1490/1550nm

maxcom

MX-02RF-C-WD
(w/ GPON option)



*No external Power Required

RF signal



RF Signal Level Meter



TV



MX-02RF-C-WD

www.maxcomcorp.com