MX OPTICAL TO RF CONVERTER

The MX-O2RF 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. It presents a fast and simple tool for converting a fiber optic signal to an RF signal. Commonly used by CATV field, network and headend technicians where fiber is becoming more commonly used. Find out more at this link: https://www.maxcomcorp.com/product-details/mini-optical-rf-converter/

- No Power required
- Bandwidth of 45 – 1050 MHz
- Optical input wavelengths 1260-1620nm

*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	CATV Operating wavelength	(nm)	1260~1620	
	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	(℃)	-20~+55	
	Storage temp	(℃)	-40~85	
	Operating relative temp	(%)	5~95	
	Size (W)×(D)×(H)	(mm)	23×53×12	A Type (Enamel Type)

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Application Diagram

Fiber Signal from Cable TV Headend or Hub
(Analog Transmitter or EDFA Source)

Example of the MX-O2RF being connected to an RF Signal Meter or Analyzer, or direct to Converter or TV

The MX-O2RF-WD-C Model is available with built-in GPON filter for Cable TV systems offering RF overlay and GPON

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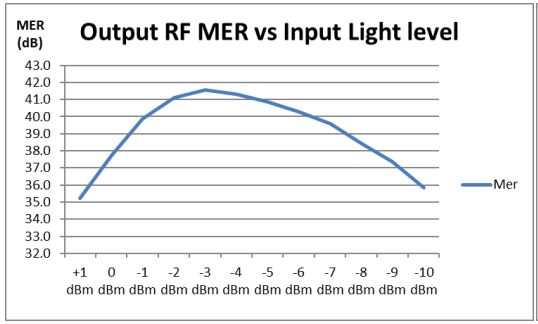
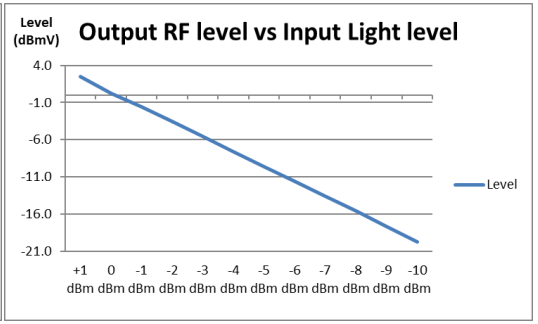
Test data:

	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.

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