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MX-FLEX-RX-1.2G

High Output Broadband Optical Receiver

PRODUCT OVERVIEW

The MX-FLEX-RX-1.2G optical receiver is a high performance, and high RF output Fiber in, RF out, Receiver. The receiver comes equipped with built in RF gain adjustment and equalization/slope control (no pads or EQs required). Adjustments may be made via LED display screen and control buttons. The receiver provides great flexibility and may be used in any indoor FTTx application. The receiver offers excellent performance. Used in CATV system with digital or analog TV channels.

PRODUCT FEATURES

- RF bandwidth: 47~1218 MHz
- *Optional* PON Port (passes G and XGS PON Wavelengths 1270, 1310, 1490, 1577nm)
- AGC feature: Optical Input:−9.0dBm~+2dBm
- Low noise(3.8% modulation, -8dBm receive, CNR≥46dB)
- High level output – up to 52 dBmV (+46 QAM RF level)
- RF Output level and slope(EQ) may be adjusted by 1 dB increments
- LED screen display's technical parameters:
    - Optical Input Power
    - RF Attenuation
    - Equalizer
    - Operating Voltage
    - Temperature

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Available with <u>Optional</u> PON Port

FUNCTION DISPLAY AND OPERATION

MODE: The Mode selection button steps through five different operating modes, press the MODE button for the corresponding status display. Note: LED screen will go into sleep after 1 minute. ▲ ▼ The Up/Down Arrow buttons allow the user to adjust the value.

Modes:
P: Indicates the input optical power in dBm.
A: Indicates the attenuation level, 0 = No Attenuation, 15 = -15 dB Attenuation. Adjustment range is 0~15dB.
E: Indicates the equalization/slope mode. This setting is used to adjust the tilt from low to high frequencies. The adjustment range is 5~15dB.
U: Indicates the display voltage mode, 8.0 indicates that the operating voltage is +8VDC. This parameter indicates that the PS is operating at or near the proper voltage.
F: Indicates the internal operating temperature in Fahrenheit. The input operating range is -40 to +140 degrees F.

TECHNICAL INDEX

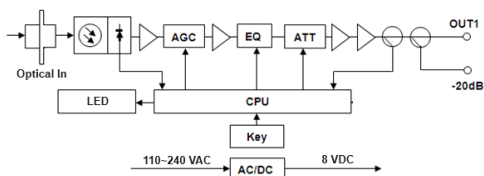|	Performance			Index		Notes
			Min.	Typ.	Max.	
Optical Parameter	CATV operational wavelength (input)	(nm)	1100		1650	*Units w/ PON port input range is 1540~1565nm
	Optical Input Power Range (AGC control range)	(dBm)	-9		2	+3 dBm Max Input
	PON Port Wavelength Pass (if ordered w/ PON port)	(nm)		Optional		Pass GPON/XG(S)PON port (1310/1490/1270/1577)
	Optical return loss	(dB)		>50		
	Optical connector			SC/APC		
RF Parameter	Frequency Range	MHz	47		1218	
	Flatness	(dB)		+ - 1 dB		
	RF output level (Analog)	dBmV	36	45	52	Max Analog w/ 0 Pad
	RF output level (Digital)	dBmV	30	39	46	Max Digital w/ 0 Pad
	Attenuation Range	dB	0		15	Adjustable in 1 dB Steps
	Equalizer Range	dB	5		15	Adjustable in 1 dB Steps
	C/N	dB	-1	≥51dB	1	
	C/BTC	dB		≤-60dB		
	C/CSO	dB		≤-60dB		
	OMI	%		3.8		
	MER Contribution	dB	0.5	1	2	
	Return loss	dB	16			47~1200MHz
General	Supply Voltage	VAC	110		240	
	Operating current	Watts		10		@ 120 VAC
	Operating Temperature Range	F	-40		140	Degree Fahrenheit
	Operating relative humidity	%	5		59	
	Dimensions	Inch	7.5"	4.5"	2"	With Connectors and mounting ears

Notes: -1 dBm Optical Input, 3.8% OMI / Ch. 54~550 MHz Analog, 550~1200 MHz Digital (QAM) @ -6 dB Lower than Analog. Digital TV test signal: MER: 42 dB, BER:<1.0E-9

Part Numbers:
MX-FLEX-RX-1.2G (Standard configuration)
MX-FLEX-RX-1.2G-PON (with PON Port)

FUNCTIONAL BLOCK DIAGRAM

Shown with Optional PON Port