

FIBER OPTICS

DATASHEET | JULY 2013



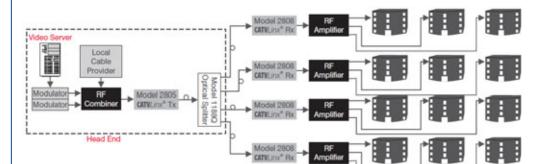
Features

- Wide Bandwidth of 40 to 860 MHz Accommodates Up to 110 Channels on All Models
- Provides Excellent Picture Quality with a CNR up to 54.5 dB, CSO of -63 dBc, and CTB of -66 dBc
- RF Output Up to +28 dBmV Allows a Greater Number of Drops or Splits
- Wide Optical Input Range of -8 dBm to +4.5 dBm Permits the Use of a Lower Power Transmitter, Reducing System Cost
- Built-in, Universal AC Power Supply Frees System User from Bulky Wall-Mount AC Adapters

The 2808 110 Channel VSB/AM Optical Receiver provides CATV distribution headend operators with an extensive array of features that offer a low-cost solution to increase system performance. The receiver provides an RF output of +28 dBmV allowing multiple RF splits without the use of an external RF amplifier. The 2808 is equipped with a manual gain control that allows the user to adjust the RF output level for optimum performance. Additionally, the receiver's ability to operate over a wide optical input range of -8 to +4.5 dBm allows for a variety of system designs without degrading performance. The 2808 can transport up to 110 CATV channels using the entire high-frequency bandwidth, or alternatively, it can transport up to 80 channels of standard analog CATV signals while utilizing the remaining high-frequency bandwidth to transport 30 digital QAM channels. The receiver includes a universal AC power supply, freeing the user from a bulky wall-mount AC adapter. The streamline design of the 2808 offers the flexibility and performance demanded by today's broadband professional.

77/110 Channel CATV Receiver Part Numbers

Description	Part Number		
Fiber Optic Receiver, 1310/1550 nm, SC/APC Optical Connector	2808R-SFSP		
Fiber Optic Receiver, 1310/1550 nm, FC/APC Optical Connector	2808R-SFAP		



© 2013 EMCORE Corporation | REV 2013.07

Information contained herein is deemed reliable and accurate as of the issue date. EMCORE reserves the right to change the design or specification at any time without notice.



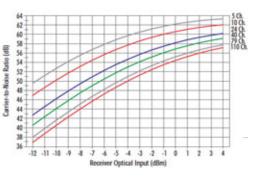
DATASHEET | JULY 2013

FIBER OPTICS

RF & Optical Characteristics

Parameter	Min	Тур	Max	Units
Optical Input Power	-8.0	0.0	+4.5	dBm
Operating Wavelength	1290	1310	1330	nm
Operating Wavelength	1530	1550	1571	nm
Bandwidth	40	-	860	MHz
Output RF Impedance	-	75	-	Ohms
RF Output Level	-	-	+28	dBmV
RF Output Return Loss	-	16	-	dB
Back Reflection Tolerance	-	-	-50	dB
Required Fiber Bandwidth	2,000	-	-	MHz
Composite Second Order (CSO)	-	-63	-	dBc
Composite Triple Beat (CTB)	-	-66	-	dBc
Carrier-to-Noise Ratio		See Graph		dB

Carrier-to-Noise Performance



System performance specifications indicated for use with 9/125 μ m singlemode fiber.

Electrical Characteristics

Parameter	Min	Тур	Max	Units
Power Supply Voltage	-	120	240	V _{AC}
Power Supply Frequency	50	60	-	Hz
Power Dissipation	-	8	-	Watts

Physical Characteristics

Parameter	Min	Тур	Мах	Units
Weight	-	1.1 0.5	-	lbs kg
Dimensions	-	8.45 x 2.95 x 1.12 215 x 75 x 29	-	in mm

Environmental Characteristics

Parameter	Min	Тур	Мах	Units
Operating Temperature Range	0	-	+50	°C
Storage Temperature Range	-20	-	+70	°C
Humidity (RH, non-condensing)	5	-	95	%