2809 77 Channel LDS CATV Optical Receiver

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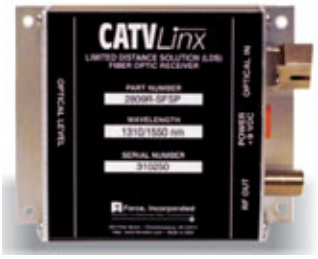


Features

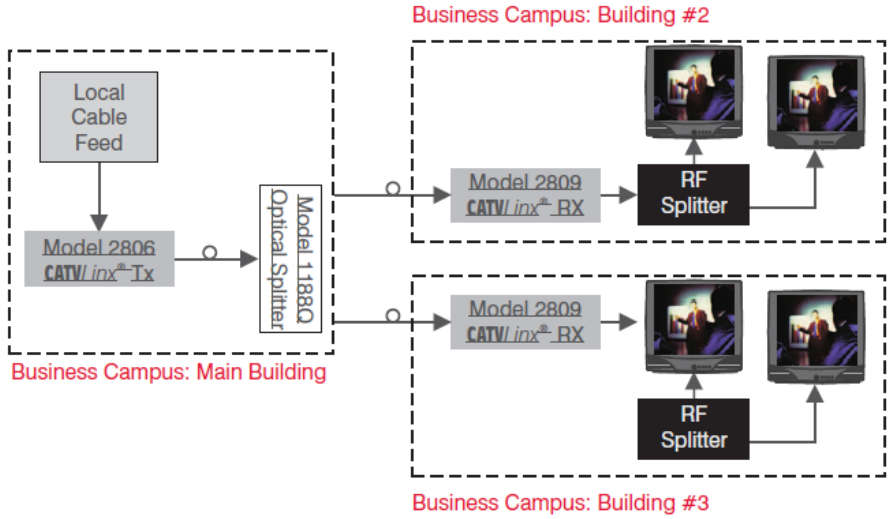
- Bandwidth of 40 to 550 MHz Accommodates Up to 77 Channels
- Provides Excellent Picture Quality with a CNR up to 54.5 dB, CSO of -63 dBc, and CTB of -66 dBc
- Low Profile, Rugged Package Allows Great System Installation Flexibility
- Wide Optical Input Range of -8 dBm to +4.5 dBm Permits the Use of a Lower Power Transmitter, Reducing System Cost
- Excellent for HFC, Short-Haul, Intra-Facility, and Campus/Enterprise Distribution

The 2809 77 Channel CATV Optical Receiver facilitates a low-cost system for transporting up to 77 channels of VSB/AM modulated signals over a singlemode optical fiber. The 2809, working with 2806 transmitter, provides excellent performance up to 10 km with full channel loading, high sensitivity, and 550 MHz of usable bandwidth. With a wide optical input range of -8.0 to +4.5 dBm and +18 dBmV of RF output at 0 dBm optical input, the 2809 allows excellent performance for intra-facility limited distance applications, such as corporate CATV delivery and campus/enterprise distribution where cost, small size, and performance are major considerations. This low-cost system gives CATV providers the ability to provide reliable limited distance fiber optic video distribution systems.

77 Channel CATV Receiver Part Numbers

Description	Part Number
Fiber Optic Receiver, 1310/1550 nm, SC/APC Optical Connector	2809R-SFSP
Fiber Optic Receiver, 1310/1550 nm, FC/APC Optical Connector	2809R-SFAP

Note: Power Supply Part Number PS095 Included.



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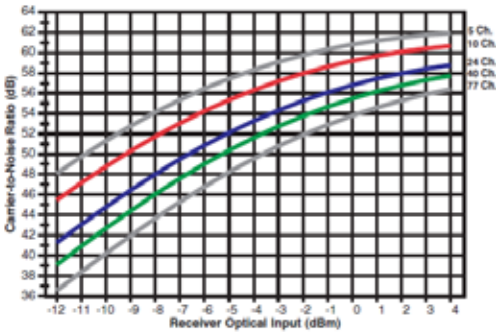
RF & Optical Characteristics

Parameter	Min	Typ	Max	Units
Optical Input Power	-8.0	0.0	+4.5	dBm
Operating Wavelength	1280	1310	1340	nm
Operating Wavelength	1490	1550	1610	nm
Bandwidth	40	-	550	MHz
Output RF Impedance	-	75	-	Ohms
RF Output Level	-	+18	-	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

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

Carrier-to-Noise Performance



Electrical Characteristics

Parameter	Min	Typ	Max	Units
Power Supply Voltage	+8	-	+10	V_{DC}
Power Dissipation	-	5	-	Watts

Physical Characteristics

Parameter	Min	Typ	Max	Units
Weight	-	6.6 187	-	oz g
Dimensions	-	3.75 x 2.95 x 1.12 95 x 75 x 29	-	in mm

Environmental Characteristics

Parameter	Min	Typ	Max	Units
Operating Temperature Range	0	-	+50	^{O}C
Storage Temperature Range	-20	-	+70	^{O}C
Humidity (RH, non-condensing)	5	-	95	%

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