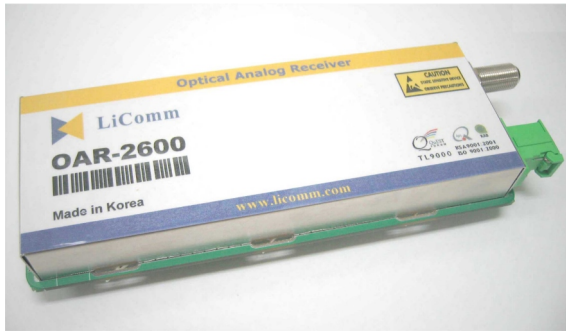


# Optical Analog Receiver



The OAR series features a low-noise, impedance-matched broadband photodiode and RF amplification. The device receives optical analog signal for a range of CATV and satellite broadcast bands, and delivers the corresponding RF electrical output. The wide bandwidth supports the delivery of up to 110 CATV analog signals of 70 to 2600 MHz. It provides excellent distortion performance and frequency response over the entire bandwidth from 70 to 2600 MHz. The OAR series can monitor and control optical analog receiver functions including RF electrical output control via RS232.

## Features

- Wide bandwidth of 70 MHz to 2600 MHz accommodates up to 110 CATV and satellite analog channels.
- Excellent RF frequency and distortion characteristics for high linearity
- Digitally adjustable built-in RF attenuator
- Automatic Gain Control
- Internal proprietary impedance match circuitry (75Ω)
- Wide operating temperature range
- RS232 asynchronous serial interface

## Applications

- Video signal distribution in HFC and FTTx nodes
- Video overlay in PON (passive optical networks)
- CATV and satellite broadcasting system

## Electrical / Optical Characteristics

Parameter	Min	Typ	Max	Unit
Input optical power	-5	-	0	dBm
Wavelength	1550	-	1560	nm
Responsivity	0.9	-	-	A/W
Optical input return loss	-	-	-40	dB
Power supply		12		Vdc
Power consumption		-	5	W

## RF Characteristics

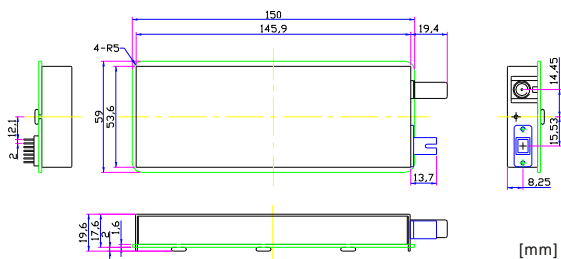
Parameter	Min	Typ	Max	Unit
Bandwidth	70		2600	MHz
Frequency response 70MHz ~770MHz 950MHz ~ 2600MHz			1.5 3.0	dB dB
Output RF signal level 70MHz ~770MHz 950MHz ~ 2600MHz		93 83		dBuV/ch dBuV/ch
Received channel number 70MHz ~770MHz 950MHz ~ 2600MHz		70 40		
Output Return loss 70MHz ~770MHz 950MHz ~ 2600MHz			-16 -10	dB dB
Equivalent input noise			8.0	pA/ $\sqrt{\text{Hz}}$
Distortion CSO 70MHz ~770MHz 950MHz ~ 2600MHz CTB	55 55 65			dBc dBc dBc

## Pin Configurations

Pin No.	Description
1	12V
2	12V
3	GND
4	RS232-Tx
5	RS232-Rx
6	LOS
7	GND

Note : RS232is LVTTLevel

## Outline Drawings



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