

# CATV

## Downstream 1310nm Transmitter



### Features

- \*870 MHz bandwidth
- \*Excellent CNR and low distortion performance
- \*Optical power range from 4 mW to 20 mW
- \*High link budget
- \*AGC / MGC gain control mode
- \* Broadcast and Narrowcast applications
- \*Status monitoring control interface available

### Optical Parameters

Laser type	Cooled DFB LD with isolator
Optical wavelength	1310 ± 20 nm
Connector	SC / APC with shutter , FC/APC or E2000/APC(optional)
Laser RIN noise density	≤-155 dB / Hz
Optical power	4,6,8,10,13,16,20 mW

### RF Parameters

Operating bandwidth	45 to 870 MHz
Analog channel loading	45 to 550 MHz for 77 NTSC or 60 PAL channels
Digital channel loading	550 to 870 MHz for digital signals
RF input impedance	75 Ω (unbalanced)
RF input return loss	≤-16 dB
RF connector type	F type Female
RF input level (Analog)	15 to 25 dBmV/ch with AGC control Nominal value@20 dBmV/ch (77 NTSC channels loading) with MGC control Nominal value@21 dBmV/ch (60 PAL channels loading) with MGC control
Flatness	± 0.75 dB
Test point	-20 ± 1 dB ref to RF input port

**HOLLAND**  
Electronics LLC

2935 Golf Course Dr. • Ventura, CA 93003 • (800) 628-4511 / (805) 339-9064

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## Link Performance (Premium type)

C/N table	Link loss(dB)											typical value	
	4	5	6	7	8	9	10	11	12	13	14		15
Output Power													
4 mW (6 dBm)		54	<b>53</b>	52	51								
6 mW (8 dBm)				53.5	<b>52.5</b>	51.5	50.5						
8 mW (9 dBm)					54	<b>53</b>	52	50.5					
10 mW (10 dBm)						54	<b>53</b>	52	50.5				
13 mW (11 dBm)							54	<b>53</b>	52	50.5			
16 mW (12 dBm)								54	<b>53</b>	52	50.5		
20 mW (13 dBm)									54	<b>53</b>	52	50.5	
CSO	≤ -64 dBc												
CTB	≤ -68 dBc												
XM	≤ -65 dBc												

## Link Performance (Standard type)

C/N table	Link loss(dB)											typical value	
	4	5	6	7	8	9	10	11	12	13	14		15
Output Power													
4 mW (6 dBm)		52	<b>51</b>	50	49								
6 mW (8 dBm)				51.5	<b>50.5</b>	49.5	48.5						
8 mW (9 dBm)					52	<b>51</b>	50	48.5					
10 mW (10 dBm)						52	<b>51</b>	50	48.5				
13 mW (11 dBm)							52	<b>51</b>	50	48.5			
16 mW (12 dBm)								52	<b>51</b>	50	48.5		
20 mW (13 dBm)									52	<b>51</b>	50	48.5	
CSO	≤ -64 dBc												
CTB	≤ -68 dBc												
XM	≤ -65 dBc												

### Test conditions:

1. All fiber @ 0.35 dB/km +1 dB passive loss
2. Room temperature: 25 °C ± 5 °C
3. 77/60 CW carriers (NTSC/PAL frequency planning) , 4/5MHz noise bandwidth

## Electrical/Environmental/Mechanical

Operating temperature	0° to 50°C
Storage temperature	- 20° to 60°C
Operating humidity	85% Max
Supply voltage	+24 VDC
Supply current	<1 A
Dimensions	310 D x 43 W x 161 H (mm)
Weight	< 1.3 kg

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