



# 730

CATV Fiber Optic Transmission Systems

CATV  
→  
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**“Up to 110 Channel NTSC or  
77 PAL Channels”**

**“Our RF optical products are reliable and economical.”**

**Applications**

CATV Broadcast/Narrowcasting  
in FTTX Nodes

Extended CATV Signal Over Fiber in  
Enterprise Campus Networks

CATV HFC Network Trunking or  
Distribution

The 730 Series is a high-performance CATV Optical Transmission System. It transmits a 45 MHz to 870 MHz CATV RF signal over singlemode fiber, and maintains the highest signal fidelity over long distance.

The 730-TD is a directly modulated CATV optical transmitter and has an output optical power of 10 or 12 dBm. The 730-TE is an externally modulated CATV optical transmitter using a LiNbO3 optical modulator. The 730-TD is perfect for short distance enterprise campus CATV extension, while the 730-TE is designed for CATV trunking/distribution applications.

**Features**

1310 nm Directly or 1550 nm Externally  
Modulated Transmitter

AGC at Receiver to Maintain the Same  
RF Output

Option with +14 dBm to +24 dBm  
EDFA

The 730-R is a highly linear CATV receiver, specifically designed for integration into FTTX subscriber node equipment. It contains AGC function such that the RF output level can be maintained in a certain range regardless of optical input power variation.

The 730-EDFA is an Erbium-doped fiber amplifier designed for long-distance or large-branching applications. It features low noise figure characteristics and has options for +14 dBm to +24 dBm output optical power.

The 730 design is capable of addressing a variety of non-standard designs. Contact us to discuss your custom, OEM/private brand and high volume requirements.



### CATV Transmitter

CATV Input Channel Capacity	110/77 Channel, NTSC/PAL CATV Signal
Bandwidth	45-870 MHz
Flatness	-0.75 to +0.75 dB
Connector	F-Type
Impedance	75 $\Omega$
Return Loss	16 dB
RF Input Level Value	+15 to +25 dBm V/ch

### Optical Output

Output Port	1 (730-TD) or 2 (730-TE)
Connector	Singlemode SC/APC or FC/APC female housing
Wavelength	1310 nm (730-TD) or 1550 nm (730-TE)
Optical Power	+6 to +13 dBm (730-TD) +7 dBm (730-TE)

### System Parameters

CNR	50 dB (730-TD) or 52 (730-TE)
CSO	-64 dB (730-TD) or -65/-63 dB (730-TE Port-1/2)
CTB	-68 dB (730-TD) or -65 dB (730-TE)
SMSR	30 dB
Cross Modulation	-65 dBc

### Electrical

Voltage/Power	90-260 VAC, 15W
Dimension (HxWxD)	1.78" x 19.1" x 13.8"

### CATV Receiver

CATV Output Channel Capacity	110/77 Channel, NTSC/PAL CATV Signal
Bandwidth	45-870 MHz
Flatness	-0.75 to +0.75 dB
Connector	F-Type
Impedance	75 $\Omega$
Return Loss	13 dB
RF Input Level Value	+15 dBm V/ch (full channel loading) and >-6 dBm optical input

### Optical Input

Input Port	1
Connector	Singlemode SC/APC or FC/APC female housing
Wavelength	1200 to 1600 nm
Optical Input Power	-6 dBm (min) +1 dBm (max)

### System Parameters

CNR	46 dB
IMD2	-70 dBc

### Electrical

Voltage/Power	12 VDC, 6W
Dimension (HxWxD)	1.38" x 4.36" x 3.9"

### EDFA Optical Amplifier

Optical Port	1
Optical Connector	Singlemode SC/APC or FC/APC female housing
Optical Wavelength	1540 to 1560 nm
Optical Input Power	-5 to +10 dBm (min. 0 dBm for Pout < 20 dBm, +4 dBm for Pout $\geq$ 20 dBm)
Optical Output Power	+14 to +24 dBm
Output Power Variation	-0.5 to +0.5 dBm
Noise Figure	5 dBm (Pin=0 dBm, Pout=20 dBm)
Flatness	-0.75 to +0.75 dB
Polarization Sensitivity	0.5 dB

### Electrical

Voltage/Power	90 - 260 VAC, 15W
Dimension (HxWxD)	1.78" x 19.1" x 13.8"

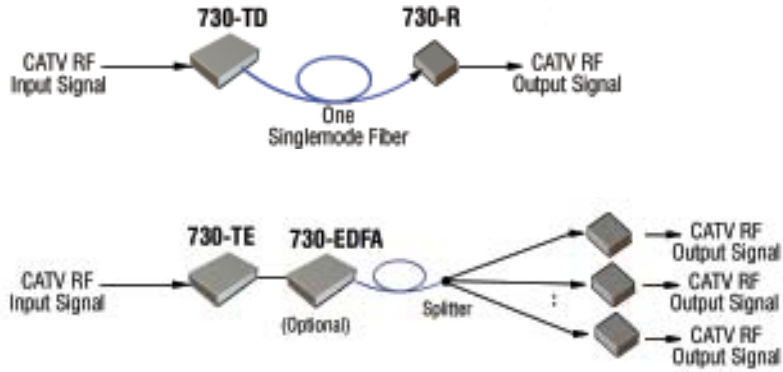
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CATV Fiber Optic Transmission Systems

RF Signal Transmission Systems



## Applications



DOING MORE WITH ONE FIBER *plus*

*Subject to continued product enhancement, we reserve the right to change the above specifications and description without notice.*

