

FWT-2600C Series CATV+IF Satellite Optical Transmitter



1. Product Description

FWT-2600C series is a 1550nm CATV + satellite TV directly modulated optical transmitter, which uses a high linear cooling DFB laser. It can transmit 47 ~ 862MHz analog & digital signals of CATV and 960 ~ 2600MHz satellite TV signals on one optical fiber.

FWT-2600C series 1550nm satellite + CATV optical transmitter, which provides a complete set of high-quality, low-cost fiber-optic trunk transmission of satellite live television (DBS) and cable television (CATV) for fiber-to-the-building (FTTB), fiber-to-the-fiber Home (FTTH) Solutions. Compatible with any FTTx PON technology, it can achieve integration of CATV + satellite TV (DVB-S) + Internet. use together with Fullwell's CATV EDFA or WDM EDFA for long-haul and large-area FTTH triple play transmission. FWT-2600C series uses a 1U 19" standard chassis. The working parameters of the device is controlled by a microprocessor. The LCD on the front panel provides status display and fault diagnosis. The built-in APC and ATC control circuits ensure laser the long service life and highly reliable operation. Two polarized power supply options for one satellite, which guarantees high-quality transmission of CATV, Analog TV, Digital TV (DBS-C, DBS-T) and Satellite TV signals over optical fiber.

2. Product Feature

- ◆ High linear cooling DFB laser suitable for Analog TV & SAT-IF applications.
- ◆ Wide bandwidth: 47 ~ 862 & 950 ~ 2600MHz working bandwidth, one fiber can transmit CATV & SAT-IF signal at the same time.
- ◆ Transmit 1 ~ 2 satellite signals.
- ◆ The optical transmitter can provide the same satellite with two polarized power supply options either with + 13VDC or + 18VDC.
- ◆ Intuitive: The laser is the most expensive components of the device. The built-in microprocessor in the machine monitors the external modulator and laser's working status, and the working parameters are displayed on the panel LCD.
- ◆ It can be used with CATV EDFA or WDM EDFA for long-haul and large-area transmission of FTTH triple play integration.
- ◆ Can be integrated and compatible with any FTTx PON triple play.

3. Technical Parameters

Items		Performance Index	Notes
Optical Index	Operating Wavelength (nm)	1548~1563	FWT-2600C
	Output Power (mW)	10	3, 5, 7, 9, 10
	Noise Equivalent Intensity (dB/Hz)	≤ -160	RIN (47~862MHz)
		≤ -145	RIN (47~2600MHz)
	Return Loss (dB)	≥ 50	
	Connector	FC/APC	SC/APC Optional
RF	Working Bandwidth (MHz)	47-862	
	Input Level (dBmV)	18~28	AGC(OMI=3%)
	Flatness (dB)	$\leq \pm 0.75$	47~862MHz
	RF Input Return Loss (dB)	> 16	47~750MHz
	RF Input Impedance (Ω)	75	
	Transmitting Channel	PAL-D/60CH	Comment 1
	CNR1(dB)	≥ 52.5	Back to back
	CNR2(dB)	≥ 50.5	50Km Fiber, 0dBm
	CTB(dB)	≤ -65	
	CSO(dB)	≤ -65	
	HUM(dB)	≤ -60	
IF	Working Bandwidth (MHz)	960~2600	
	Input Level (dBmV)	5~15	AGC(OMI=1%)
	Flatness (dB)	± 1.5	960~2600MHZ
	RF Input Return Loss (dB)	≥ 10	
	Transmitting Channel	36CH	Comment 2
	CNR(dB)	≥ 27	Noise Bandwidth 27MHz
	CTB(dB)	≤ -36	
	CSO(dB)	≤ -36	
HUM(dB)	≤ -60		
General Parameter	Power Supply (VAC)	90~265VAC	Hot-pluggable Power Supply
	Power Consumption(W)	≤ 50	
	Work Temperature ($^{\circ}\text{C}$)	0~50	Automatic Mechanical Temperature
	Dimension(")	19(1U)	Chassis

4.Product model series

 FWT-2600C-5, output power, $\geq 5\text{dBm}$, 3mW

 FWT-2600C-7, output power, $\geq 7\text{dBm}$, 5mW

 FWT-2600C-10, output power, $\geq 10\text{dBm}$, 10mW

