2.6GHz CATV and Satellite External Modulation Optical Transmitter

AT5226 Series

- External modulation technology
- 47 MHz to 862 MHz and 950 MHz to 2600 MHz
- Low dispersion distortion
- Large extinction ratio
- RF working bandwidth
- Telecommunications-grade security, reliability, and network management
- SNMP support, remote management and control

AT5226 CATV & satellite TV 1550 nm external modulation optical transmitter adopts external modulation technology without laser chirp, extremely low dispersion distortion, and a large extinction ratio. It is suitable for high-ratio, high-broadband, long-distance telecommunication network applications.

AT5226 features frequency division multiplexing, and can transmit 47 MHz to 862 MHz CATV analog and digital signals and 950 MHz to 2600 MHz satellite TV signals. It provides a high-quality and low-cost fiber artery transmission solution for FTTB and FTTH networks.

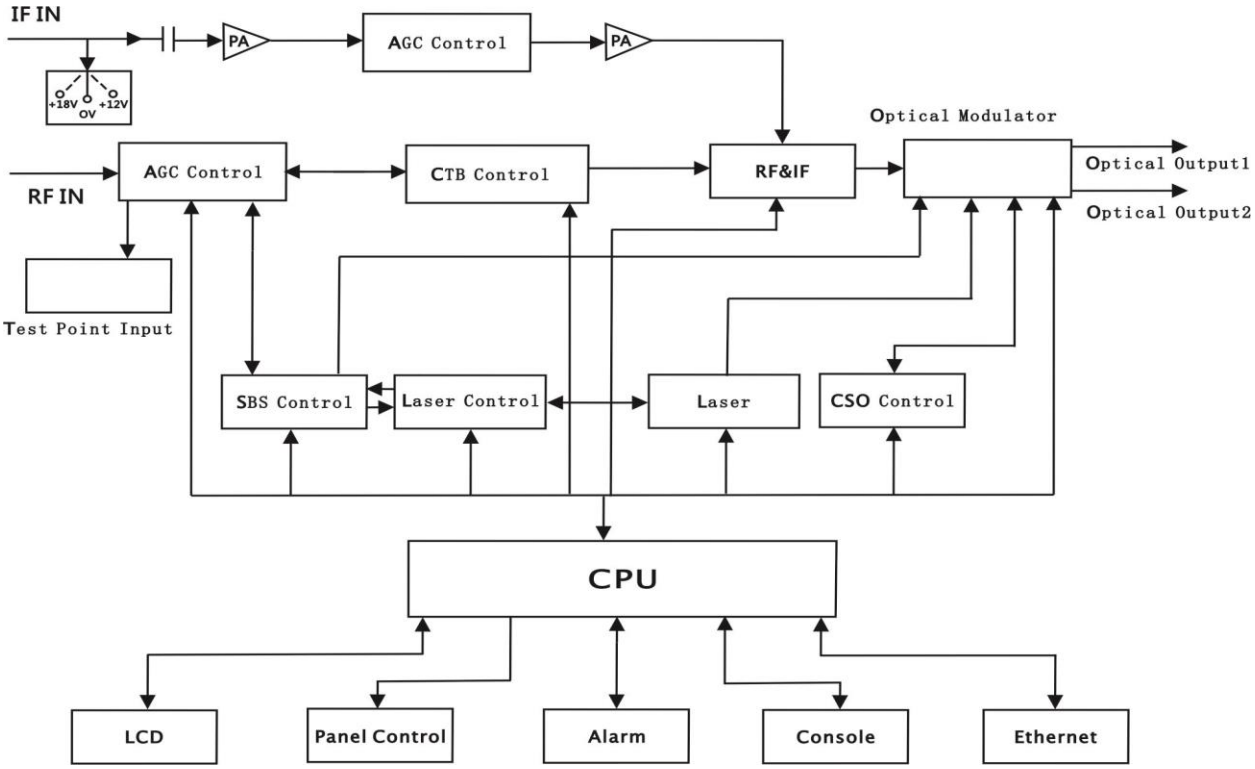
AT5226 is compatible with any FTTx PON technology to integrate satellite TV, cable TV, and internet networks. It can also use the ITU-T standard wavelength for DWDM system applications.

AT5226 uses a low noise, narrow band, continuous wave laser as optical source. A high-bandwidth LiNbo3 external modulator is used to modulate the 1550 nm laser signal and control chirp. AT5226 features excellent laser APC/ATC control and external modulation bias control, perfect SNMP, RS232 interface, and 1+1 power supply backup. It has high performance, high reliability, and an excellent performance price ratio.

Key Features

- 47 MHz to 862 MHz CATV and 950 MHz to 2600 MHz SAT signal input
- External technology without laser chirp, extremely low dispersion distortion
- Perfect pre-distortion circuit ensures the best CTB and CSO when the CNR is in high standard
- Perfect SBS suppress circuit and adjustable SBS, suitable for different types of CATV networks
- CATV level AGC control, SAT-IF Level MGC control
- Automatically shell temperature control
- The transmitter provides ETHERNT and CONSOLE standard interface for the connecting the computer
- It can be amplified by EDFA and EYDFA, compatible with any FTTX PON technology
- SNMP support, remote management and control
- 1+1 power supply back up, hot-plug function available

Block Diagram



Specifications

Item	Min	Typical	Max	Unit	Remarks
Optical Parameters					
Working Wavelength	1540	1550	1563	nm	
Output Power	4		10	mW	1550 nm
Optical Isolation	30			dB	
SBS	13	16	18	dB	
Optical Return Loss	50			dB	
Fiber Connector	FC/APC or SC/APC				Chosen by customer
CATV RF Parameters					
Bandwidth	47		862	MHz	
Input Range	75		85	dBuV	
Flatness	-0.75		+0.75	dB	47 MHz to 862 MHz
C/N	52			dB	Test standard GT/T 184-2002
C/CTB	65			dB	
C/CSO	60			dB	
Input Return Loss	16			dB	
RF Port	F Imperial				
Input Impedance		75		Ω	
SAT-IF Parameters					
Working Bandwidth	950		2600	MHz	
Input Range	-25		-5	dBm	
Flatness	-1		+1	dB	950 MHz to 2600 MHz
Input Return Loss	10			dB	
RF Port	Imperial				
Input Impedance		75		Ω	
Tuner Feeding Voltage		0/13/18		V	
Tuner Feeding Current			300	mA	
General Parameters					
Power Supply Voltage	AC: 90 V to 265 V (50 Hz) DC: 48 V				
Power Consumption			30	W	
Operating Temperature	0		50	°C	
Operating Humidity	5		95	%	
Storage Temperature	-40		60	°C	
Dimensions	1U 19” 483 × 381 × 44			mm	
Net weight		5		kg	

Ordering Information

AT5200 Series XMOD2 Optical Transmitter Ordering Information

AT-	52-	XMOD2-	XX-	XX-	XX-	XX	X-	2.6G

	Optical Wavelength
00	1550 ± 5 nm
21	ITU CH 21
23	ITU CH 23
25	ITU CH 25
xx	ITU CH XX

	Optical Connector* (Common & PON)
SC	SC/APC
FC	FC/APC

	Power Supply
1	Default Single PS
2	Dual PS for multiple output version

	Optical Output Power
04	4 dBm
05	5 dBm
07	7 dBm
08	8 dBm
10	10 dBm

	Power Supply
AC	90 V_{AC} to 265 V_{AC} Australia Plug
DC	30 V_{DC} to 72 V_{DC}
A3	90 V_{AC} to 265 V_{AC} with Continental EU Plug
A4	90 V_{AC} to 265 V_{AC} with North America Plug

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Specifications and product availability are subject to change without notice.

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