

1550nm XMOD Transmitter Video Overlay Solution



AT5000 XMOD2 Series

- High Performance with pre-distortion circuit
- Video-Overlay for FTTx applications
- Dual Optical Output
- Redundant Power
- Intuitive Front Panel LCD Display
- Adjustable SBS 13 to 18dBm
- Universal management through craft interface and SNMP

AT5000 1RU Dual Output 1550nm Externally-Modulated (XMOD) Laser Transmitter offers a flexible, medium and long distance and scalable optical transmission for high quality analog and digital video in CATV networks. Together with ACT 1RU EDFA optical amplifiers, the AT5000 XMOD provides an ideal long distance video and short, medium video overlay solution in high density FTTX networks to bring the CATV services to business and home premises.

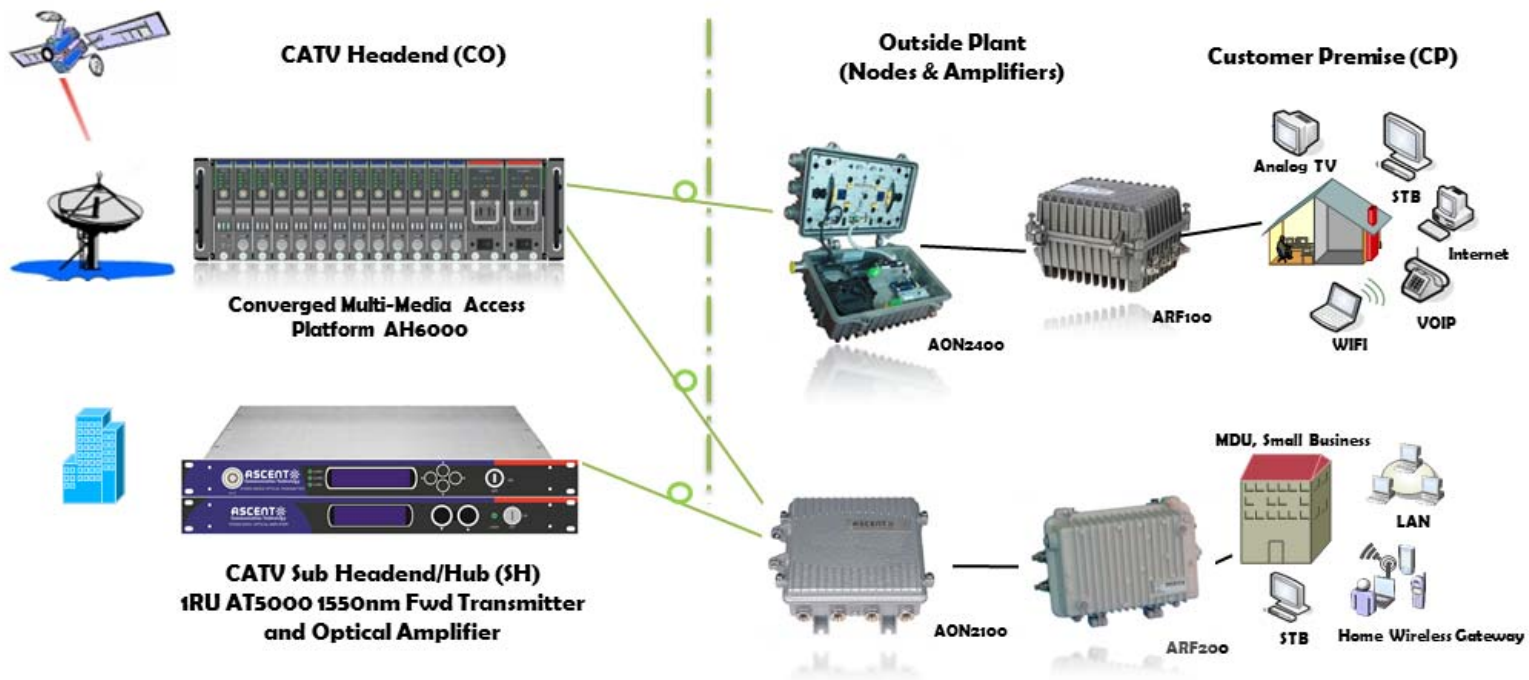
AT5000 XMOD 1550nm series transmitters are designed with two optical output ports with power from 3dBm, 6dBm, 9dBm to 10dBm. These transmitters are equipped with field adjustable Stimulated Brillouin Scattering (SBS) suppression from 13 to 18dBm. AT5000 XMOD series simplifies the application by offering chirp-free operation with confined optical line width and maintain excellent distortion performance CNR, CSO and CTB across the entire network.

AT5000 XMOD transmitter provides low dispersion transmission with intuitive front panel LCD display to make operator's life easier. The optical transmitter is packaged in a self-contained 19" sub-rack of 1 RU with universal mains power supply and SNMP management.

Key Features

- High performance on CSO, CTB with RF pre-distortion circuit
- Dual optical output power up to 10dBm
- Suitable for long distance 1550 nm DWDM Video transmission applications
- Suitable for short, medium distance FTTH applications
- Low noise DFB continuous wave laser, reduce the dispersion effect
- Optimized models for 60 PAL or 89 PAL channels, 80 NTSC channels or 110 NTSC channels
- Dual redundant hot-swappable AC or DC power supplies
- Field-adjustable Stimulated Brillouin Scattering (SBS) suppression for optimized CSO
- Front-panel LCD for local monitoring of transmitter status
- Local or remote monitoring and configuration
- SNMP/HTTP monitoring, management and control

Application Diagram



Specifications

AT5000 XMOD2 1550nm Externally-Modulated (XMOD) Laser Transmitter - 19" 1RU

RF Specification

RF bandwidth:	47~862MHz or 47~1002 MHz
RF flatness:	+/-0.75 dB @ 47~862MHz, +/-1.5dB@47~1003 MHz
RF Input Level:	18~28dBmV
RF input return loss:	≥ 16 dB (47-550MHz), ≥ 14 (550MHz-862MHz)
RF input impedance:	75 Ω
RF test point:	-20 dB
TV channel plan:	60 or 89 PAL channels 80 or 110 NTSC channels

Link Performance

CNR	53dB (59ch PAL-D, TX to RX, 0dBm receive) 51.5dB (59ch PAL-D, 65km fibre, TX with 16dBm EXDFA to RX, 0dBm receive)
CTB	-65dBc
CSO	-65dBc

Optical Specifications

Wavelength:	1550+/-5nm and ITU Ch 21, 23, 25, etc.
Line Width:	0.65 MHz typical
Optical Output Power, Port 1 & 2:	2×6dBm, 2×9dBm (2x10dBm upon request)
Optical Connector	SC/APC
Optical Return Loss	50dB
SBS Suppression	13-18dBm Field Adjustable

General Specifications

Operating Temp, °C	0 to 50
Storage Temp, °C	-40 to 85
Power Supply	90 to 265 VAC or 30 to 72 VDC
Operating relative humidity, %	5 to 95
Power Consumption, W	<50
Dimensions (W x D x H)	483x368x44 mm, 19x14.5x1.75 inch
Weight, kg	5 kg
Ship weight	5.5 kg

Note: Measured in a typical system configuration for the nominated channel numbers and nominated fibre lengths for each model at 25 °C ambient temperature.

Ordering Information

AT-5000 XMOD2 Series	Description
AT-50-XMOD2-00-06-SC-AC	AT5000 XMOD TX Dual Output TX, 870MHz, 1RU 1550+/-5, 2x6dBm optical output, SC/APC, Dual AC
AT-50-XMOD2-00-09-SC-AC	AT5000 XMOD TX Dual Output TX, 870MHz, 1RU 1550+/-5, 2x9dBm optical output, SC/APC, Dual AC
AT-50-XMOD2-21-06-SC-AC	AT5000 XMOD TX Output TX, 870MHz, 1RU ITU Ch 21, 2x6dBm optical output, SC/APC, Dual AC
AT-50-XMOD2-21-09-SC-AC	AT5000 XMOD TX Output TX, 870MHz, 1RU ITU Ch 21, 2x9dBm optical output, SC/APC, Dual AC
AT-51-XMOD2-00-06-SC-AC	AT5000 XMOD TX Dual Output TX, 1002MHz, 1RU 1550+/-5, 2x6dBm optical output, SC/APC, Dual AC
AT-51-XMOD2-00-09-SC-AC	AT5000 XMOD TX Dual Output TX, 1002MHz, 1RU 1550+/-5, 2x9dBm optical output, SC/APC, Dual AC
AT-51-XMOD2-00-10-SC-AC	AT5000 XMOD TX Dual Output TX, 1002MHz, 1RU 1550+/-5, 2x10dBm optical output, SC/APC, Dual AC

Note: Contact ACT for additional product variations on output power, 1GHz, specific ITU channels, optical connectors etc.

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Specifications and product availability are subject to change without notice.

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