

1550nm XMOD Transmitter Video Overlay Solution

AT5000 XMOD1 Series



- **Video-overlay for FTTx applications**
- **Cost-effective single output port**
- **Performance with pre-distortion circuit**
- **Redundant power supply**
- **Intuitive front panel LCD display**
- **Universal management through craft interface**

AT5000 1RU XMOD1 single output 1550nm Externally-Modulated (XMOD) Laser Transmitter offers a flexible, medium and long distance and scalable optical transmission for 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.

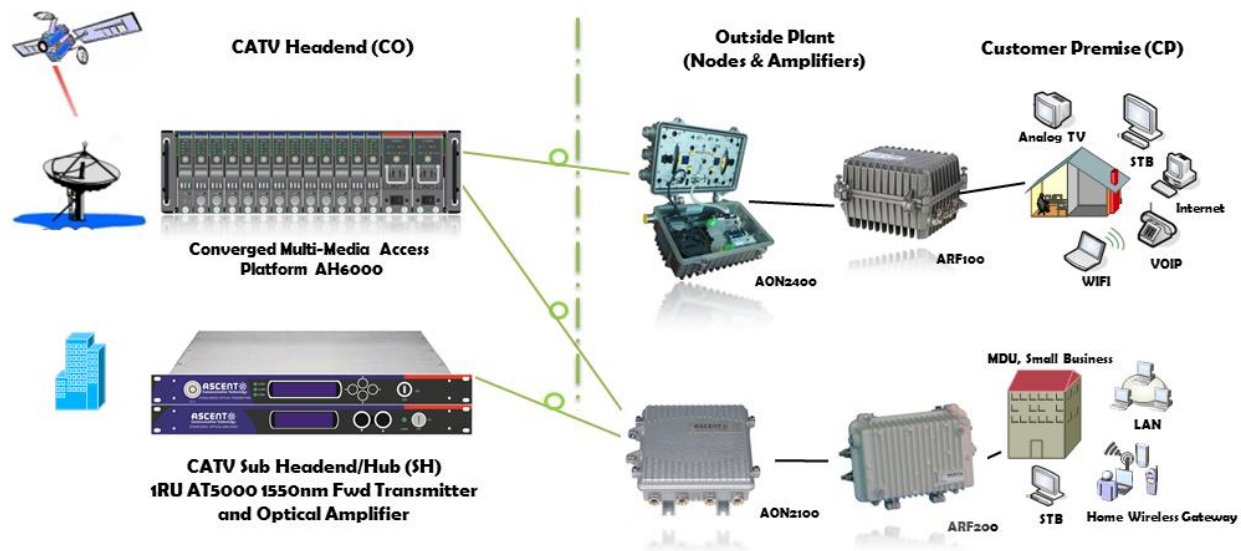
AT5000 XMOD1 1550nm series transmitters are designed with single optical output port with power level at 3dBm, 6dBm or 10dBm. These transmitters are equipped with Stimulated Brillouin Scattering (SBS) suppression at 13dBm to 19dBm. AT5000 XMOD1 series simplifies the application by offering chirp-free operation with confined optical line width and maintain excellent distortion performance CNR, CSO and CTB across the entire network.

AT5000 XMOD1 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

- Good performance on CSO, CTB with RF pre-distortion circuit
- Cost effective with single optical output port
- Suitable for medium 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
- Fixed Stimulated Brillouin Scattering (SBS) suppression
- Front-panel LCD for local monitoring of transmitter status
- Local or remote monitoring and configuration
- SNMP/HTTP monitoring, management and control

Application Diagram



Specifications

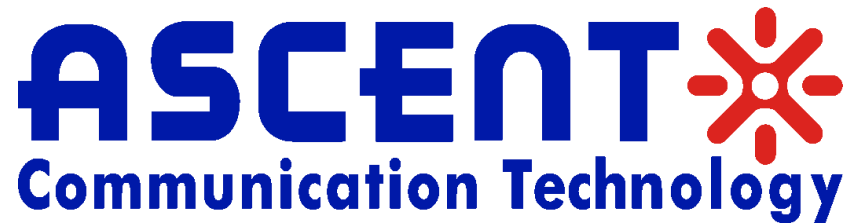
Parameter	Index	Remarks
Optical Parameters		
Wavelength	1550 nm $\pm$ 10 nm	
Output Power	1 $\times$ 6 to 1 $\times$ 10 dBm	
Optical Return Loss	$\geq$ 60 dB	
Connector Type	SC/APC	Or FC/APC
RF Parameters		
Bandwidth	47 MHz to 862/1000 MHz	
Input Level	23 dBmV $\pm$ 5 dBmV	AGC
Flatness	$\leq \pm 0.75$ dB	45 to 862MHz
Return Loss	$\geq$ 16 dB	45 to 750MHz
Input Impedance	75 Ω	
Link Parameters		
Channels	PAL-D/60ch	
CNR	$\geq$ 52 Db	
CTB	$\geq$ 65 dB	
CSO	$\geq$ 60 dB	
SBS	16 dBm	13 to 19 adjustable
General Parameters		
Net Interface	RJ45, R232	
Power	90 V _{AC} to 265 V _{AC}	Or -48 V _{DC}
Power Loss	$\leq$ 50 W	
Operating Temperature	0 °C to +50 °C	Automatically shell temp control
Storage Temperature	-20 °C to +85 °C	
Operating Humidity	20 % to 85 % RH (non-condensing)	

Ordering Information

AT-5000 XMOD1 Series	Description
AT-50-XMOD1-00-03-SC-AC2	AT5000 XMOD Single Output TX 1RU 1550+/-5, 3dBm optical output, SC/APC, Dual AC
AT-50-XMOD1-00-06-SC-AC2	AT5000 XMOD Single Output TX 1RU 1550+/-5, 6dBm optical output, SC/APC, Dual AC
AT-50-XMOD1-00-10-SC-AC2	AT5000 XMOD Single Output TX 1RU 1550+/-5, 10dBm optical output, SC/APC, Dual AC
AT-50-XMOD1-21-03-SC-AC2	AT5000 XMOD Single Output TX 1RU ITU Ch 21, 3dBm optical output, SC/APC, Dual AC
AT-50-XMOD1-21-06-SC-AC2	AT5000 XMOD Single Output TX 1RU ITU Ch 21, 6dBm 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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Ver. ACT_AT5000_1RU_XMOD1_Datasheet_V1e_Apr_2017