

1RU 1310nm Direct MOD Forward Transmitter



AT5000 Series

- **High Performance DFB Laser**
- **1310 nm TX in 1RU Chassis**
- **Bandwidth 47 MHz to 1218 MHz**
- **AGC/MGC**
- **Universal single input**
- **RF test point**
- **Redundant AC/DC power**
- **Intuitive front panel LCD display**
- **Universal management through Web interface**

AT5000 1RU 1310 Forward Transmitter offers a flexible, 1RU, high performance platform for high quality forward path CATV video and data services distribution, especially for the sub Headend and Hubs in a CATV networks. Together with ACT 1RU AT5000 ARQR return receiver provides an ideal standalone MDU solution in traditional HFC network and also high density FTTX networks to bring back the data signal from business and subscriber home premises.

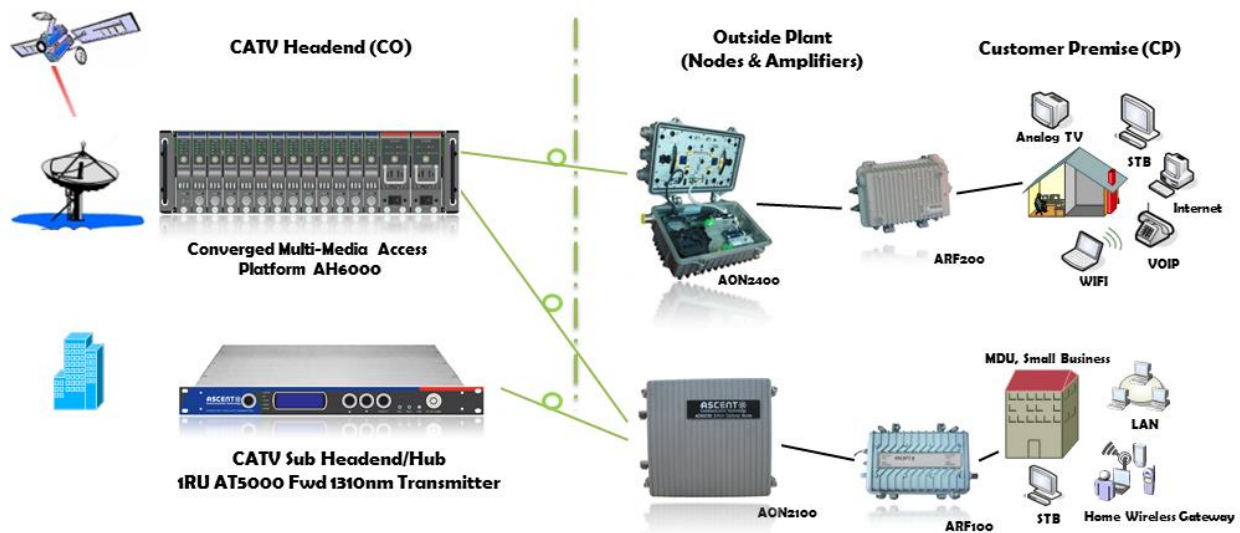
AT5000 1RU 1310 Direct Mod forward transmitter is designed with a high performance 1310nm DFB laser transmitter module and ideal for both broadcast and narrowcast application in one pizza box platform. AT5000 F3CT can provide a wide range of optical output power to deliver both analog and digital signals. Advanced pre-distortion circuitry achieves superior CSO and CTB performance. Good link performance enables DOCSIS 3.0 downstream bonding on HFC architectures.

AT5000 F3CT forward transmitter is equipped 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 distributed feedback (DFB) laser with pre-distortion circuit
- Suitable for CTAV sub Headend or hub standalone application
- Bandwidth 45 to 1218MHz
- Automatic/manual gain control (AGC/MGC)
- Single input for both broadband and narrowband signal
- RF input test point
- Short circuit protection
- Dual redundant hot-swappable AC or DC power supplies
- 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 Direct Mod 1310 nm Single Forward Transmitter, F3CT

Item	Description	Notes
Optical Specifications		
Wavelength	1310 nm ± 20nm	
Output Ports	1	
Optical Output Power	2, 4, 6, 8, 10, 11, 12, 13, 14, 15dBm	
Optical Connector	SC/APC	
Optical Return Loss	50 dB	
RF Specification		
RF Bandwidth	47 MHz to 1218 MHz	
RF Flatness	±0.75 dB	
RF Input Level	75 dBμV to 85 dBμV (80 dBμV typ.)	AGC
RF Input Return Loss	≥16 dB	
RF Input Impedance	75 Ω	
RF Connector	F-type	Customizable
Link Performance		
TV Channel Plan	59 PAL-D channels, 80 NTSC channels	
CNR	≥52.0 dB	-1 dBm receive
CTB	≥65.0 dB	-1 dBm receive
CSO	≥65.0 dB	-1 dBm receive
MER	≥40.0 dB	128 ch, 256QAM
BER	≤10E ⁻⁹	128 ch, 256QAM
General Specifications		
Network Management	Supports SNMP, WEB	
Power Supply	AC: 90 V _{AC} to 265 V _{AC} DC: -72 V _{DC} to -36 V _{DC}	
Power Consumption	≤20 W	Dual power supply, 1+1 redundancy
Operating Temperature	-5 °C to +65 °C	
Storage Temperature	-40 °C to +85 °C	
Operating Relative Humidity	5 % to 95 %	
Dimensions (WxDxH)	483 mm × 370 mm × 44 mm 19×14.25×1.75 (inch)	
Weight	4.1 kg	

Ordering Information

AT5000 F3CT Series	Description
AT-51-F3CT-DM-08-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 8dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-10-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 10dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-12-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 12dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-13-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 13dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-14-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 14dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-15-SC-AC	AT5000 1310nm F3CT Direct Mod TX 1RU, 15dBm output, 1002MHz, SC/APC, Dual AC Power
AT-51-F3CT-DM-10-SC-AC2	AT5000 1RU 1310nm F3CT Direct Mod TX, 10 dBm output, 1.2 GHz, SC/APC, Dual AC Power

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