

OTS 9152

1550nm Direct Modulation Optical Transmitter



According to the Next Generation Broadcasting (NGB) planning and PON standards, 1550nm is defined as the transmission wavelength for HFC downstream. The high cost of 1550nm external modulated transmitter and dispersion effects of 1550nm directly modulated make network transformation difficult. Thus we create the 1550nm directly modulated optical transmitter with electronically controlled dispersion compensation. It supports up to 1.2GHz band and DOCSIS 3.1 system. With two RF inputs and high isolation, it enables the signal transmission of QAM and IPQAM smoothly. Support a transmission distance of 25KM with electronically controlled dispersion compensation.

Applications

☐ CATV

☐ FTTX

Features

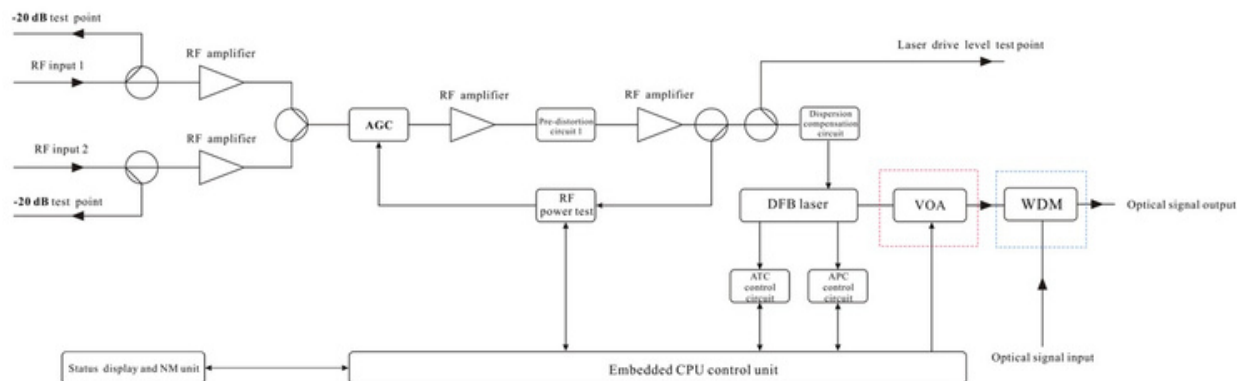
☐ Data

- ORTEL 1751A DFB laser.
- 1.2GHZ band, support DOCSIS 3.1 system.
- The AGC and MGC gain control modes are optional.
- Two inputs with 50dB isolation for high quality RF insertion.
- Dual power supply; hot backup; a variety of power supply options are available, optional AC220V and DC48V.
- Laser output power, bias current and cooling current are detected in real time.
- Electronically controlled dispersion compensation can support a transmission distance of 25KM.
- Low-cost solution is comparable to the performance of external modulated transmitter.

Specifications

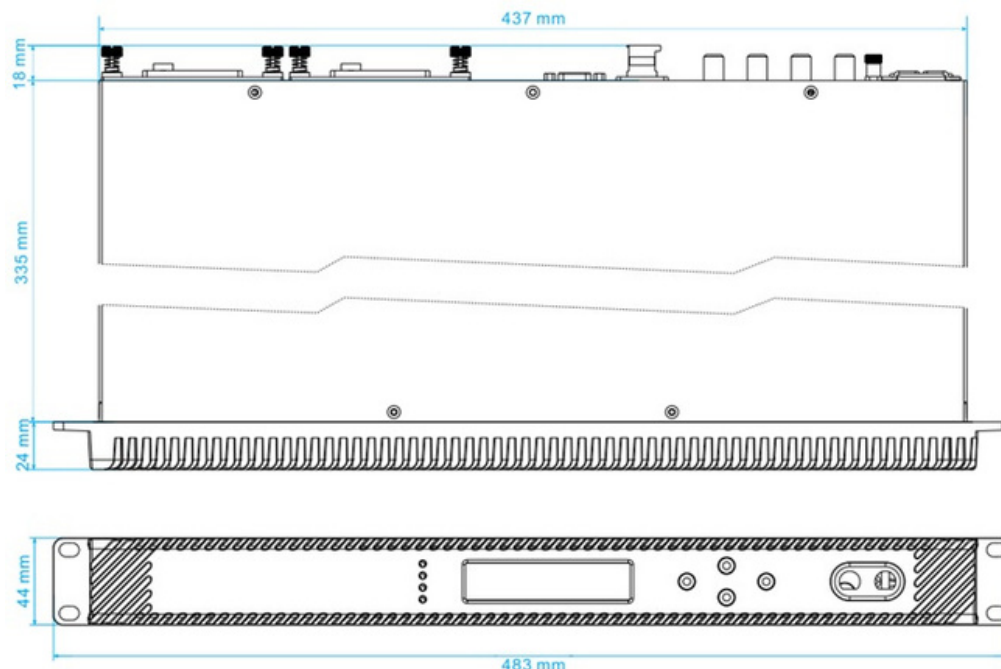
Parameter	Unit	Specification
Optical Characteristics		
Wavelength	nm	ITU wavelength (1550 +/-10)
Laser type	—	Butterfly-typed DFB laser
Output power	mW	10
Connector type	—	SC/APC
RF Performance		
Bandwidth	MHz	47~870/1003/1218
Input level	dBuV	77± 5
Impedance	ohm	75
Flatness in band	dB	+/-0.75
Input Return Loss	dB	>16
RF AGC Control range	dB	±5
RF MGC Control range	dB	0~20
Input isolation	dB	≥ 50, Isolation between two RF inputs
CNR	dB	≥ 48
CSO	dB	≥ 58
CTB	dB	≥ 63
MER	dB	≥ 40
Others		
Supply voltage	VAC	100~260 (50~60Hz)
Power consumption	W	≤10
Dimensions	mm	377D x 437W x 44H
Weight	Kg	5.5
Operating temperature	°C	-5~55
Storage temperature	°C	-30~70

Block Diagram



Note: The optical attenuator in the red dashed box and the wavelength division multiplexer in the blue dashed box are optional.

Dimensions [Unit: mm]



Ordering Information

OTS 9152	--	X	--	XXX	--	XX
		Power Supply :		Connector :		Customer specify
		1 : 110/220 VAC		SCA = SC/APC		
		2 : 48 VDC		FCA = FC/APC		
		3 : Dual 110/220 VAC				
		4 : 110/220 VAC and 48 VDC				