

1550nm External modulated Optical transmitter

Specification

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I .Product Overview

1550nm external modulated optical transmitter which is the highest level product. Adopt Narrow line width (Typ.=0.3MHz) and Low-noise imported DFB laser as the source; Adopt high linear LiNbO3 external modulator as RF signal modulator, with special CTB,CSO, dual high frequency SBS threshold control etc. core technologies; designed for long-distance transmission networks.

The 1550 series external modulated optical transmitter is the first choice product for networking of broadband transmission system and large-capacity CATV optical transmission system. It is applied to optical modulation, optical insertion, WDM and related network upgrade and expansion of large 1550nm optical transmission system. It is the core equipment for RFTV radio network system to realize Triple-play, FTTH and 1550nm system.

II.Feature

2.1 Multi-configuration for customization: The finely differentiated specifications can meet the requirements of different networks, with single output and double outputs, and output optical power can be chosen from 3dBm to 10dBm.

2. 2 High-performance laser: The DFB laser with narrow line width and low noise as the light source and the LiNbO3 external modulator as the external signal modulator.

2.3 Pre-distortion circuit: Superior pre-distortion circuit, with perfect CTB and CSO performance when CNR is high.

2.4 SBS suppression circuit: Superior SBS suppression circuit, SBS continuously adjustable, can be suitable for different transmission distance network demand.

2.5 AGC control: Automatic gain control(AGC) to maintain stable signal output when different RF input.

2.6 Dual power supply guarantee: Built-in dual power backup, support hot*plug, automatic switch.

2.7 Full automatic temperature control: Auto chassis temperature control; intelligent fans when the case's temperature up to 30 °C begin to run.

2.8 Display and alarm: LCD display, with laser monitoring, digital display, fault warning, network management and other functions; Once the working parameters of the laser deviate from the allowable range set by the software, the alarm will be prompted.

2.9 Overall network management function: The standard RJ45 interface, support SNMP, remote network management for the computer and adjustment of AGC, SBS, OMI, etc., can also change the model and series number displayed on the front panel ,the local network management and monitoring.

III. Order Information

No.	Model	Wavelength	Number of output	Each output(dBm)	Connector (Optional)	Power Supply (Optional)
3.1.1	1550-1×5	1550nm	1	5dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.2	1550-1×6	1550nm	1	6dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.3	1550-1×7	1550nm	1	7dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.4	1550-1×8	1550nm	1	8dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.5	1550-1×9	1550nm	1	9dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.6	1550-1×10	1550nm	1	10dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.7	1550-2×5	1550nm	2	5dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.8	1550-2×6	1550nm	2	6dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.9	1550-2×7	1550nm	2	7dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.10	1550-2×8	1550nm	2	8dBm	SC/APC 或 FC/APC	dual power supply 220V/110V/-48V/mix
3.1.11	1550-2×9	1550nm	2	9dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix
3.1.12	1550-2×10	1550nm	2	10dBm	SC/APC or FC/APC	dual power supply 220V/110V/-48V/mix

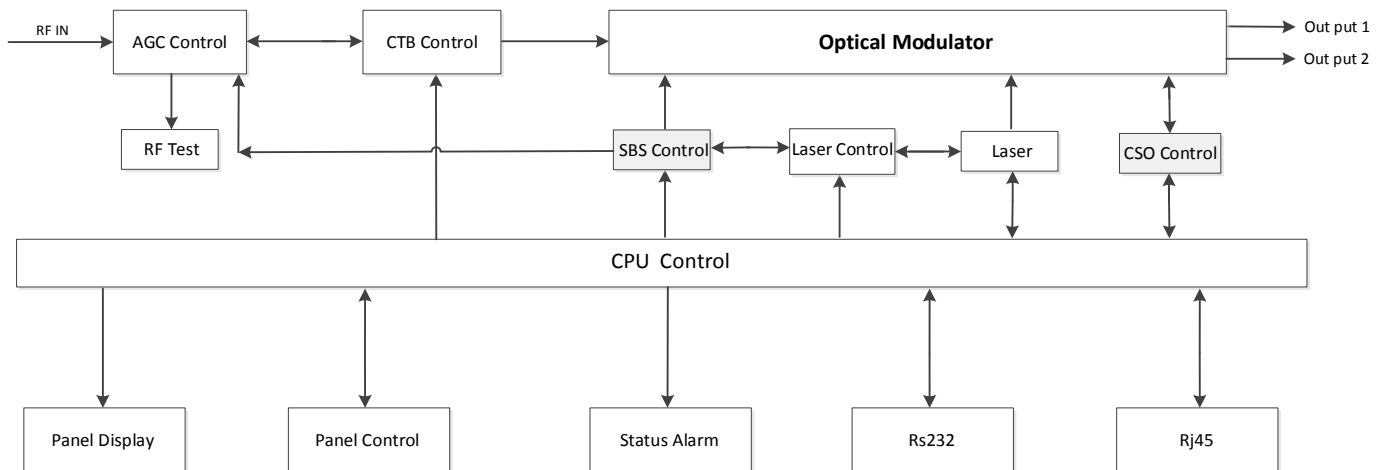
IV.Parameter

No.	Item	Technical parameter			Unit	Remarks
		Min	Typical	Max		
Optical parameter						
4.1.1	Wavelength	1540	1550	1565	nm	Depend on the customer's requirements
4.1.2	Output port	1	2	2	↑	Depend on the customer's requirements
4.1.3	Each output power	5	7	10	dBm	1×5、1×6、1×7、1×8、1×9、1×10、2×5、2×6、2×7、2×8、2×9、2×10 optional
4.1.4	Side-Mode Suppression Ratio	30			dB	
4.1.5	SBS	13		19	dBm	Step 0.1dB
4.1.6	Return loss	50			dB	
4.1.7	Connector type		FC/APC、 SC/APC			Depend on the customer's requirements
RF parameter						
4.2.1	Bandwidth	47		1000	MHz	
4.2.2	Input level range	75		85	dBuV	AGC
4.2.3	FL	-0.75		+0.75	dB	47~1000MHz
4.2.4	C/N		52		dB	
4.2.5	C/CTB		65		dB	
4.2.6	C/CSO		65		dB	
4.2.7	Input return loss		16		dB	45~750MHz
4.2.8	RF interface		F-Imperial F- metric			
4.2.9	Input impedance		75		Ω	

General parameter

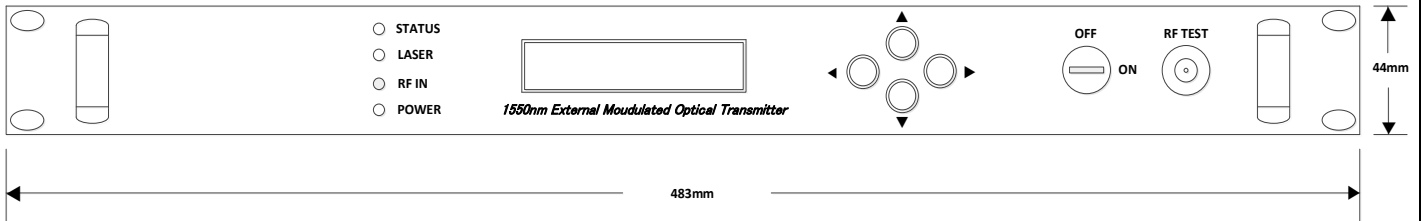
4.3.1	Power supply		A:90 ~ 265VAC ; B:DC48V		V	
4.3.2	Consumption			50	W	
4.3.3	Working temp range	-5		55	°C	Automatic case temperature control
4.3.4	Max working relative humidity	5		95	%	No condensation
4.3.5	Storage temp	-40		70	°C	
4.3.6	Dimension		1U 19 Inch 483(W)x381(D)x44(H)		mm	
4.3.7	Net weight (Kg)		7		Kg	

V. Diagram



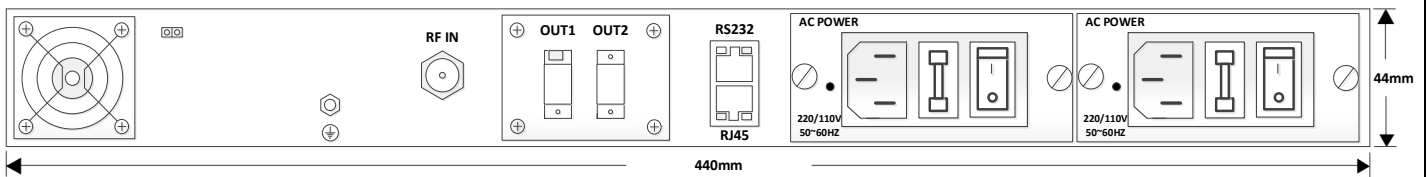
VI. Panel Structure

6.1 Front panel structure

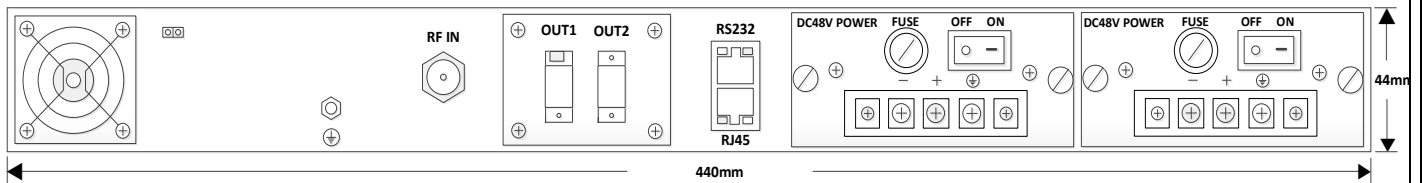


6.2 Rear panel structure

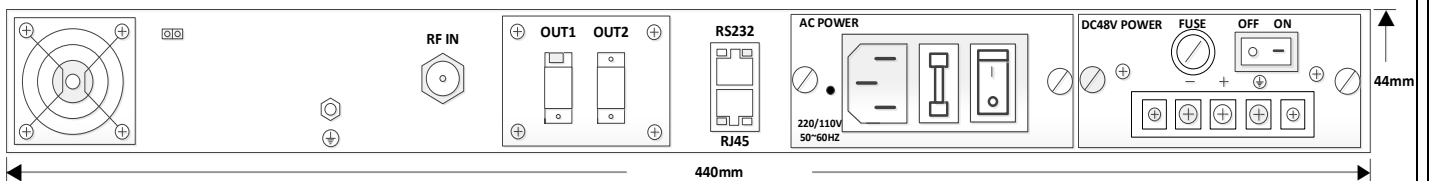
Style 1: (dual power supply:220V/110V)



Style 2: (dual power supply:-48V)



Style 3: (dual power supply: 220V/110V and -48V)



VI.Application

1. CATV head-end.
2. FTTH, FTTx PON, RFOG etc.
3. IPQAM etc. narrow insertion data service.
4. Improve the flexibility and convertibility of network wavelength.
5. Make full use of existing optical fiber resources to achieve network upgrade and capacity expansion.
6. DWDM system , CATV super-capacity backbone and Metropolitan area network.