1550nm Directly Modulated Optical Transmitter For Long Distance Transmission

Product Overview

HT1800 1550nm directly modulated optical transmitter for long distance transmission adopts advanced electric dispersion compensation technology based on the standard model. The standard model will create serious chirp distortion (the bias current of the laser is modulated by the signal, and the optical frequency is shifted and jittered). The distortion becomes more and more serious with the increase of transmission distance, transmission bandwidth and the number of channels. This device adopts the advanced technology of EMD compensation. According to the actual transmission distance, it can accurately compensate in 1km step. The max compensation distance can reach 50km. It is mainly used in large area coverage and long-distance point-to-point transmission of secondary optical fiber network. It provides high-quality but low-cost solution to realize triple play and FTTx transmission system.

Features

1.The transmission distance is adjustable, max distance can reach 50km.

2.It adopts original low chirp and high linearity DFB laser as signal source.

3.The perfect pre-distortion circuit ensures perfect performance of CTB and CSO in high standard CNR value.

4.Automatic gain (AGC) control enables stable output in different RF input levels.

5.Different networks can be optimized by OMI adjustment.

6.Fully automatic case temperature control, intelligent fans, the fans starts to work when case temperature reaches 30 ℃.

7.Built -in dual standby power supply, hot plug in/out and automatic switching supported.

8.The operating parameters of the whole machine are controlled by microprocessor, and the LCD status display on the front panel has many functions such as laser status monitoring, parameter display, fault alarm, network management, etc.; once the operating parameters of the laser deviate from the allowed range set by the software, the system will alarm promptly.

9. Standard RJ45 interface provided, supporting remote network management of SNMP and WEB.

Main Technical Index

Category	Items	Unit	Index			Remarks
			Min.	Typ.	Max.	
Optical Index	Wavelength Range	nm	1528.77		1563.86	Compatible with ITU wavelength
	No. of Output Ports	No		1	2	
	Output Power per Port	dBm	3		10	=1dBm interval
	Laser linewidth	MHz		0.65	1.0	
	SMSR	dB	45	50		
	XP	dB	20			
	RIN	dB/Hz			-160	RIN（20~1002MHz）
	Optical Return Loss	dB	50			
	Fiber Connector		SC/APC			FC/APC、LC/APC
RF Index	Operating Bandwidth	MHz	47		1002	
	Input Level	dBμV	75	80	85	AGC
	Flatness	dB	-0.75		+0.75	47~1002MHz
	Return Loss	dB	16			47~1002MHz
	Input Impedance	Ω		75		
	RF connector		F Metric/Imperial			Specified by user
Link Index	CNR1	dB	48.0			25km, Rx 0dBm 59CH Analog+40CH digital
	CTB1	dB	63.0			
	CSO1	dB	60.0			
	CNR2	dB	46.0			50km, Rx 0dBm 59CH Analog+40CH digital
	CTB2	dB	63.0			
	CSO2	dB	55.0			
General Index	Network Management Interface		SNMP,WEB supported			
	Power Supply	V	90		265	AC
			-72		-36	DC
	Power Consumption	W			30	Dual Power Supply, 1+1 standby
	Operating Temp	℃	-5		+65	Auto case temp control
	Storage Temp	℃	-40		+85	
	Operating relative humidity	%	5		95	
	Dimension	mm	370×483×44			D、W、H
	Weight	Kg	4.1			

Main Applications

1.CATV System

2. Secondary fiber networks, point to point in long distance（≤50Km）

3 .FTTH、FTTx PON、RFOG、Triple-play

4. DWDM System

5. Network upgrading and capacity expansion based on existing optical fiber resource.