1550nm Directly Modulated Transmitter Support 30KM

I. Products Descriptions

1550nm internally 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 sigh and 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. The device adopts the advanced technology of EMD compensation. According to the actual transmission distance, it can be 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

1.1 It adopts advanced electric dispersion compensation technology. According to the actual transmission distance, it can be accurately compensate in 1km step. The max compensation distance can reach 50km.

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

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

1.4 Automatic gain (AGC) control enables stable output in different RF input level.

1.5 Different networks can be optimized by OMI adjustment.

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

1.7 Built -in dual backup power supply, hot plug and automatic switch supported.

1.8 The working 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 working parameters of the laser deviate from the allowed range set by the software, the system will alarm promptly.

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

II. Installation

2.1 Preparation before Installation

2.1.1 Please examine the machine to see if there is distinct.

2.1.2 Please examine if the accessories is complete and the quality cards is here. If not, please contact sales or dealer.

2.2 Installation

2.2.1 Please keep a space about 4.5cm between machines for ventilation.

2.2.2 Please make sure: the socket works very well and well grounded; The impedance ≤4Ω; 220V power with three cables, the middle one should connected to the ground. Incorrect grounding may hurt the device or influence the quality of signal.

2.2.3 Please make sure the key is turned to OFF before the power supply connected.

2.2.4 Please keep the interface of the fiber clean before connecting the fiber. The connector could choose FC/APC or SC/APC.

3. 2 Main Technical Parameters

Category	Items	Unit	Index			Remarks
			Min.	Typ.	Max.	
Optical Index	Operating 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	Dispersion Compensation Distance	Km			50	
	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			

3.3 Front Panel Instructions

S/N	Identification	Name	Remarks
1	LCD	LCD Display	To display the parameters of the transmitter
2	STATUS	Device Working Status	LED Green，Device working
			LED Red, Device faulty or alarm
3	LASER	Laser Output	LED Green, Output with in normal range
			LED Red, Output out of normal range
4	RF	RF Input	LED Green, Input within requested range
			LED Red, no input or out of the requested range
5	POWER	Power Supply	LED Green, Dual power supply working
			LED Yellow, Single power supply working
6		Buttons	Start menu page turning and set the device
7	ENT	Enter	Confirmation after menu page turning and device setting
8	OFF/ON	Key	ON Laser on, OFF Laser off
9	RF TEST	RF Test Point	RF input level -20dBμV

3.4 Rear panel Instructions

S/N	Identification	Items	Remarks
1	RF INPUT	RF Input	RF Input
2	DATD IN	Date Input	Date Input
3	OUT	Optical Output	Optical Output
4	RS232	RS232 Port	Local programming
5	RJ45	RJ45 Port	Remote SNMP and WEB supported
6	Fan	Fan	For device cooling
7		Grounding Port	For Grounding
8	Power1	Power Socket1	Hot plug in/out supported
9	Power2	Power Socket 2	Hot plug in /out supported