

HT8500M (CNR \geq 53.5dB, SBS:13~19 adjustable)

FTTP Multi-port output 1550nm external modulation 47~862MHz

PRODUCT DESCRIPTION

HT8500M series, Multi-optical port output externally modulated transmitter, a research product which is designed for FTTx PON large area and multi-user access.

HT8500M series, use high-power, low noise, narrow linewidth, continuous broadcast, DFB lasers. It can provide 4~10 way high linearity standard optical power output. It can connect 4~10 units high-power FTTB EDFA(Like HA5837-32). AS this product without EDFA, so each optical port can output up to :CNR \geq 53.5dB, CTB \geq -65dB, CTB \leq -65dB, the high technical index.

HT8500M Series, based on the series of unique and innovative

chassis, SBS can reach 13 ~ 19dBm adjustable, suitable for high-power EDFA applications.

HT8500M Series, Telecom class high reliability and network management. Use 1+1 powers supply back up hot-plug function available, avoid power damaged lead system collapse. Machine equipped RS232 communication interface and SNMP network management. Installation of all optical port can be on the front panel, and also can be specified on the rear panel.

HT8500M series, Multi-optical port output FTTP externally modulated transmitter, Its high index, high reliability and excellent cost performance, for large and medium cities CATV network, to achieve local large area, multi-user coverage, providing high performance, high-index access.

- HT8547M:4 optical port output, each port \geq 7.0dBm, CNR \geq 53.5dB, SBS: 13~19dBm continuous adjustable.
- HT8567M:6 optical port output, each port \geq 7.0dBm, CNR \geq 53.5dB, SBS: 13~19dBm continuous adjustable.
- HT8585M:8 optical port output, each port \geq 4.5dBm, CNR \geq 53.5dB, SBS: 13~19dBm continuous adjustable.
- HT85A5M:10 optical port output, each port \geq 4.5dBm, CNR \geq 53.5dB, SBS: 13~19dBm continuous adjustable.



PRODUCT FEATURE

- ▶ Using high-power, continuous wave DFB laser, which provides 4-way, 6 way, 8 way, 10 way high linearity standard optical power output, can be linked more FTTP EDFA.
- ▶ Innovation SBS: 13 ~ 19dBm adjustable.
- ▶ Telecom class high reliability and network management.
- ▶ High system indicators: $CNR \geq 53.5\text{dB}$, $CTB \geq -65\text{dB}$, $CTB \leq -65\text{dB}$ (Without EDFA).
- ▶ Externally modulated technical no laser chirp, low dispersion distortion, large extinction ratio, 47 ~ 862MHz band have good features.
- ▶ Narrow linewidth (Typ. = 0.65MHz), low noise, DFB continuous wave laser, helps to reduce the dispersion.
- ▶ The operating bandwidth is up to 47~1000MHz .
- ▶ ITU standard wavelength, in the $\pm 200\text{GHz}$ ($\pm 1.6\text{nm}$) range can be adjusted.
- ▶ AGC / MGC mode is optional at spot; OMI can be optimized at spot.
- ▶ 1+1 powers supply back , up hot-plug function available
- ▶ Advanced SNMP network management function, perfect RS232 communicate interface.
- ▶ Casing temperature auto-control.

MAIN APPLICATION

- ▶ FTTx PON (FTTH, FTTP)
- ▶ Large and medium-sized cable television central office front-end local network large area, multi-user access.
- ▶ DWDM Optical CATV systems value-added services.

TECHNICAL INDEX

Performance			Index	Additional
Optical feature	Work wavelength	(nm)	1540~1563	HT8500M-CR
			1528.77~1563.86 (ITU)	HT8500M-□□
	Wavelength adjusting range	(nm)	±1.6	±200GHz
	Wavelength adjustment method		±0.05nm stepping	
	Wave and work stability	(Pm/°C)	-1~0	Tc=20~70°C
	Laser line width	(MHz)	Typ.=0.65	FWHM($\Delta\lambda$), (-3dB fullwidth)
	Side mode suppression ratio	(dB)	≥45	SMSR
	Equivalent noise intensity	(dB/Hz)	≤-160	RIN (20~1000MHz)
	Number of output port		4	HT8547M
			6	HT8567M
			8	HT8585M
			10	HT85A5M
	Light output number	(dBm)	≥7.0	HT8547M, HT8567M
			≥4.5	HT8585M, HT85A5M
	Return loss	(dB)	≥50	
	Optical fiber connector		LC / APC	
RF feature	Work bandwidth	(MHz)	47-862	Optional 47~1000MHz
	Input level	(dBmV)	18~28	AGC
	Flatness	(dB)	≤±0.75	47~862MHz
			≤±1.5	862~1000MHz (Optional)
	Return loss	(dB)	>16	
	Input impedance	(Ω)	75	
	RF connector		F-Female	

Line feature	Transmit channel		PAL-D/60CH	PAL-D/99CH	
	CNR1	(dB)	≥53.5	≥52.0	Back to back
	CNR2	(dB)	≥52.0	≥50.0	65Km optical fiber, 0dBm receive
	CTB	(dB)	≤-65	≤-65	
	CSO	(dB)	≤-65	≤-65	
	SBS restrain	(dBm)	13~19		Adjustable
General feature	SNMP network management interface		RJ45		
	Communication interface		RS232		
	Power supply	(VAC)	90~265		50/60Hz
		(VDC)	-48		36~72VDC
	Power Consume	(W)	≤50		Single power works
	Operating temp	(°C)	0~65		Machine temp. control automatically
	Storage temp.	(°C)	-40~85		
	Relative humidity	(%)	5~95		
	Size (W)×(D)×(H)	(")	19×15.2×1.75		S-Type
			19×17.9×1.75		L-Type

PRODUCT SERIES

Model	Number of output port	Output power of each port	Operating wavelength(nm)	SBS Restrain (dBm)	System index			
					CNR1	CNR2	CTB	CSO
HT8547M	4	≥7.0	ITU wavelength ±200GHz Adjustable	13~19 Adjustable	≥53.5	≥52.0	≤-65	≤-65
HT8567M	6	≥7.0			≥53.5	≥52.0	≤-65	≤-65
HT8585M	8	≥4.5			≥53.5	≥52.0	≤-65	≤-65
HT85A5M	10	≥4.5			≥53.5	≥52.0	≤-65	≤-65

Test condition :

CNR1: Tx to Rx, 0dBm receiving.

CNR2: 16dBm EDFA (NF4.5~5.5dB),65km fiber, 0dBm receiving.

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