

# 1310nm Direct Modulation Optical Transmitter • HT8300 Series

## Technical Specification

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## **1.0 PRODUCT DESCRIPTION**

1310nm direct modulated 1310nm transmitter, adopts high linearity DFB laser of famous brand in the world, and builds-in perfect pre-distortion adjustment circuit and laser APC, ATC closed loop control circuit. All the operating parameters of HT8300 direct modulated 1310nm transmitter are controlled by microprocessor, and the LCD screen on the front panel can display relative operating status and the fault information.

HT8300 series is designed and produced by absorbing the advantages of all kinds of 1310nm transmitters from both home and abroad. Featured of 1310nm transmitter with high index, multi-function and high reliability, it is suitable for high-end subscribers application.

## 2.0 PRODUCT FEATURE

- Dual Module RF driver, high efficiency laser pre-distortion adjustment
- Full-automatic OMI control, AGC & MGC

Under AGC status, input level is between 78~88dBuV, and system index is optimum

Under MGC status, input range can be adjusted between 75~90dBuV by the ATT on front panel
- Front panel has 20 grades OMI status display (Modulation Depth)

Under AGC status, within RF range, OMI is always at NOM status

Under MGC status, OMI can be at NOM status by adjusting ATT
- Built-in dual backup power supplies; Switch full-automatically.

One is working, with the other as cool backup (suggested).

Both are working at the same time, with one as hot backup. If one is damaged, it will switch to the other full-automatically. Switch time  $\leq 10\mu s$ .
- Case temperature auto-control, ensure the long life of the laser.

Case temperature is monitored and controlled by microprocessor. The display screen shows the actual operation temperature in time.

When casing temperature  $\geq 45^{\circ}C$ , two fans at the back panel will open automatically to make compulsive cooling.

When casing temperature  $\leq 35^{\circ}C$ , the fans will stop automatically to ensure its life-span.
- Dual RF input port.

AM interface	Input 59 routes PAL-D (47-550MHz)
Digital interface (-10dB)	Input digital video (550-750MHz).

### 3.0 Technique index

Performance			Index	Supplement
Optic feature	Wavelength	(nm)	1310±10	
	Output power	(mW)	4~24	
	Return loss	(dB)	≥55	
	Optical fiber connector		SC/APC	Optional FC/APC
RF feature	Work bandwidth	(MHz)	45-862	
	Input level	(dBmV)	15~25	AGC
	Flatness	(dB)	≤±0.75	45~862MHz
	Return loss	(dB)	>16	45~750MHz
	Input impedance	(Ω)	75	RF/INPUT
	RF interface		F type	Optional imperial
Link feature	Transmit channel		PAL-D/60CH	NTSC/80CH
	CNR	(dB)	≥52	10Km optical fiber, 0dBm receive
	CTB	(dB)	≤-70	
	CSO	(dB)	≤-63	
General feature	Network interface port		RJ45, RS232	Support I.E. & SNMP
	Power supply	(V)	90~265VAC	-48VDC optional (30~60VDC)
	Power Consume	(W)	≤50	Single power works
	Work temp.	(°C)	-5~65	Machine temp. control automatically
	Storage temp.	(°C)	-40~85	
	Relative humidity	(%)	5~95	
	Size	(")	19×14.25×1.75	(W)x(D)x(H)

## 4.0 PRODUCT SERIES

Model	Power (mW)	Bandwidth (MHz)	59 route PAL-D system index (dB)			
			Link Loss	CNR2	CTB	CSO
HT8304	≥4	47~860	7	≥52	≤-70	≤-63
HT8306	≥6	47~860	9	≥52	≤-70	≤-63
HT8308	≥8	47~860	10	≥52	≤-70	≤-63
HT8310	≥10	47~862	11	≥52	≤-70	≤-63
HT8312	≥12	47~862	12	≥52	≤-70	≤-63
HT8314	≥14	47~862	12.5	≥52	≤-70	≤-63
HT8316	≥16	47~862	13	≥52	≤-70	≤-63
HT8318	≥18	47~862	13.5	≥52	≤-70	≤-63
HT8320	≥20	47~862	14	≥52	≤-70	≤-63
HT8322	≥22	47~862	14.5	≥52	≤-70	≤-63
HT8324	≥24	47~862	15	≥52	≤-70	≤-63