

Lightem CATV Transmitter 1550nm Direct Modulated

LCT5DM is a 1550nm direct modulation optical transmitter with high index and AGC function. With high linearity and low chirp DFB laser, built-in pre-distortion compensation and AGC, APC, ATC closed loop control, which improves the system index obviously. LCT5DM direct modulated optical transmitter can be used in FTTx ($\leq 10\text{Km}$) of second-grade service area (Sub-HE), also can be used in WDM narrow-band multiplexing and IP/QAM. LTC5DMAC optical transmitter: CATV wavelength. LTC5DMAU optical transmitter: ITU standard wavelength



FEATURES

- Low chirp, high linearity DFB laser, chirp compensation.
- Dual module RF driver, high efficient laser pre-distortion adjustment.
- Full-automatic OMI control, AGC & MGC.
- Intuitionistic modulation status display.
- Built-in dual back-up power supply, switch automatically.
- Casing temperature auto-control, ensure the reliability of the laser.

SPECIFICATIONS

Performance	Index	Supplement
Wavelength	1548~1563	LCT5DMxx-C: CATV wavelength
	1530~1563	LCT5DMxx-I: ITU standard wavelength
Linewidth	<1 MHz	FWHM(-3dB line width)
Side mode suppression ratio	>45 dB	SMSR
Extinction ratio	>20 dB	XP
Equivalent noise intensity	< -160 dB/Hz	RIN (20~1000MHz)
Output power	6 dBm	3, 10 Options
Return Loss	>55	
Optical fiber connector	FC/APC	Optional SC/APC
RF feature		
Work bandwidth	45-862 MHz	
Input level	20±2 dBmV	MGC
Flatness	≤±0.75 dB	45-862MHz
Return loss	>12 dB	
Input impedance	75 Ω	RF/Input
RF test	0±1	Optional imperial
Link feature		
Transmit channel	PAL-D/60CH	NTSC/80CH
CNR	≥52 dB	-1dBm receive
CTB	≤-63 dB	
CSO	≤-57 dB	
SBS restrain	>17 dBm	

<i>General feature</i>		
<i>Network management interface</i>	RJ45, RS232	Support I.E. & SNMP
<i>Power supply</i>	90-265 AC	-48VDC optional(30~60VDC)
<i>Power Consume</i>	≤50 W	Single power works
<i>Work temp.</i>	-5~65 °C	Machine temp. control automatically
<i>Storage temp.</i>	-40~85 °C	
<i>Operating relative humidity</i>	5~95 %	
<i>Size (W)x(D)x(H)</i>	19×10×1.75 "	
	483×254×44 mm	

ORDERING INFORMATION

Model	Output Power (mW)	RF Bandwidth (MHz)
LCT5DM03-bccdeffgg-x	>3	47~862
LCT5DM06-bccdeffgg-x	>6	47~862
LCT5DM10-bccdeffgg-x	>10	47~862
b	C	CATV wavelength
	I	ITU wavelength
cc	05	5km distance
	10	10km distance
	15	15km distance
d	N	SNMP option
	0	No SNMP
e	1	1 fiber output port
	2	2 fiber output port
	4	4 fiber output port
	8	8 fiber output port
ff	FA	FC/APC
	SA	SC/APC
	LA	LC/APC
gg	22	220V AC
	11	110V AC
	48	48V DC
	42	48V DC & 220V AC
X	M	with SNMP Network Management
	N	without SNMP Network Management