CATV

LT1300 Series Direct-modulated Optical Transmitter

■Performance characteristics

◆The use of high-performance DFB lasers of international famous brands has narrow spectral lines, good linearity, and high output power.

◆The advanced multi-frequency RF predistortion technology uses RF power automatic processing technology to automatically optimize the drive level so that the C/CTB, C/CSO, and C/N specifications are always at optimal values.

◆The 32-bit ARM processor can efficiently coordinate the working status of each module and accurately monitor and control each operating parameter.

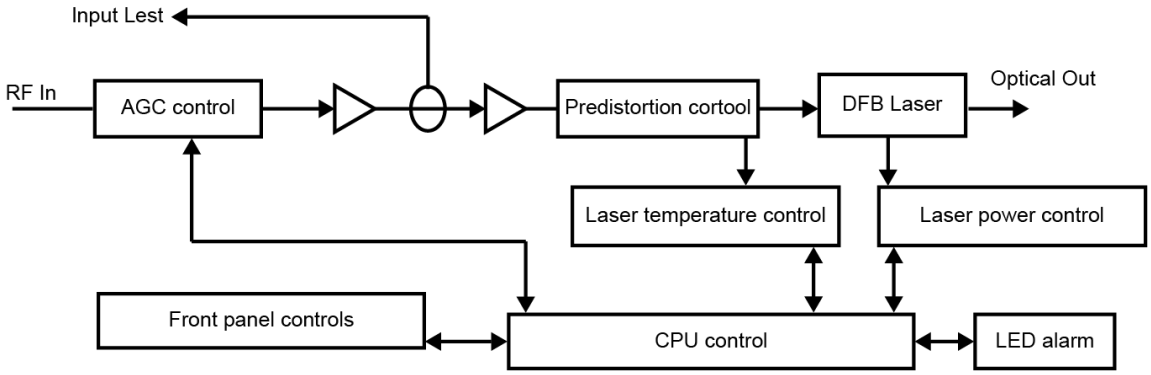
- ◆ Laser temperature stabilization circuit (ATC) and optical power output stabilization circuit (APC) ensure optimal laser performance.
- ◆ 47-862MHz (1000Mhz can be customized) operating bandwidth.
- ◆ The dual-module structure is reserved to increase the functions of light emitting, EDFA, light collection, RF switch, and other functions.
- ◆ Modular structure, easy to expand the function of equipment and maintenance.
- ◆ Standard network management interface, in line with SNMP network management protocol.
- ◆ The power supply can realize dual power hot backup, snap-type fixed, one-touch pull. Easy to operate, firmly fixed. Voltage 220V & 110V & 48V optional.

Applications

LT1300 optical transmitter is designed according to CATV standard. It modulates CATV RF amplitude signal into 1310nm/1550nm optical signal, and then transmits it to optical node in HFC network through single-mode optical fiber. It is mainly used for TV signal medium-sized network transmission and can be used for many purposes. The high-power optical amplifiers are used for the laying of fiber-to-the-home (FTTH) networks.

The LT1300 optical transmitter is equipped with a reliable and stable optical output power circuit and a pump laser thermoelectric cooler temperature control circuit to ensure the best performance of the equipment. Professional cooling structure design, intelligent temperature control fan, low power consumption. It is an ideal choice for building CATV secondary network signal transmission

Block diagram



LT1300

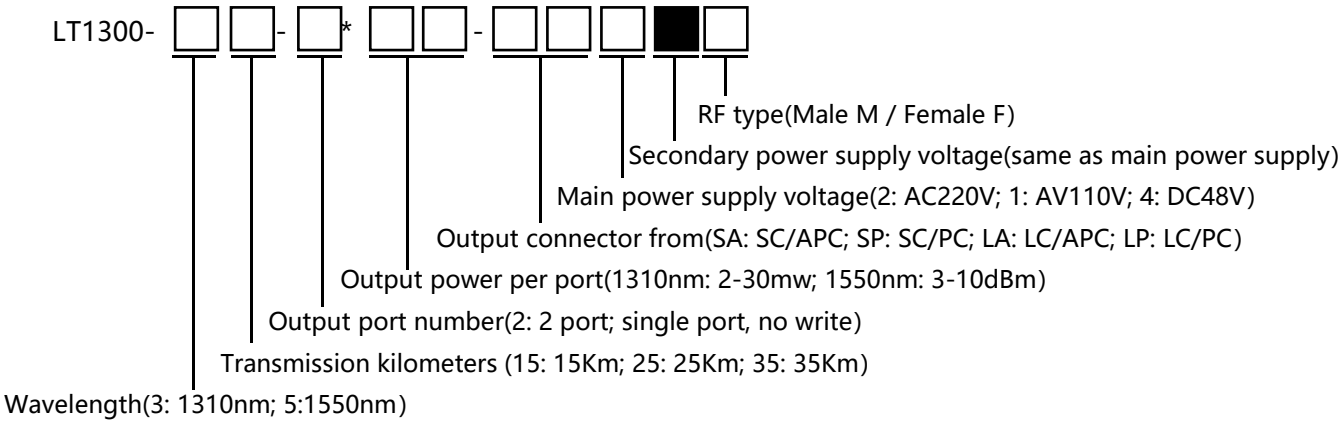
Limit parameter

Technical parameters	LT1300-3***	LT1300-5***
Maximum received optical range	1310nm±20	1550nm±15
Lowest input level	75~90dBuV（Recommended Best Value 80dBuV）	
The highest output optical power	30mW	10dBm
Extreme operating temperature	-5℃ ~+45℃	
Limit supply voltage	AC110/220（90~265v）or DC48v（38~58v）	

Technical parameters

Technical Parameters	LT1300-3***	LT1300-5***
Output optical power	2~30mW	3~10dBm
Wavelength	1310nm±20	1550nm±15
Laser type	DFB laser	
Optical modulation	Direct light intensity modulation	
Optical connector form	FC/APC&SC/APC（customize）	
Frequency Range	47~862MHz（customize 1000MHz）	
RF input level	75~90dBuV（Recommended best value 80dBuV）	
In-band flatness	±1dB	
AGC accuracy	0.5dB	
MGC adjustment range	0~15dB	
RF input impedance	75Ω	
Input reflection loss	≥16	
C/CTB	≥65	
C/CSO	≥60	
Carrier to noise ratio (C/N)	≥51	
Supply voltage	AC110/220（90~265v）or DC48v（38~58v）	
Total power consumption	< 12W	
Operating temperature	-5℃~+45℃	
Relative humidity	95% max, no condensation	
Storage temperature	-30℃~+70℃	
Product net size	357(W)*482(L)*44(H)	
Single product packaging size	595(W)*490(L)*120(H)	
FCL package size (2 sets)	595(W)*490(L)*230(H)	

Model guide



Example：LT1300-5-25-10-SA21M

Explanation: This equipment is 1U equipment, wavelength 1550nm, 2 output, each output 5dBm, the output connector is SC/APC, the main power 220V power supply, the auxiliary power supply 110V power supply, RF connector is Male.

Package & Label

1pc/carton

2pc/carton

Optical Transmitter

Model: LT1300
Power: 5dBm
Voltage: 220V AC
Desc: 2*5-SA21M
QTY: 1PC

21/09

Label