

# OT8C optical transmitter

## Description

OT8C optical transmitter uses a standard 19" chassis (1U) and modulates the magnified and corrected RF signal to DFB laser. The internal MCU accurately control output optical

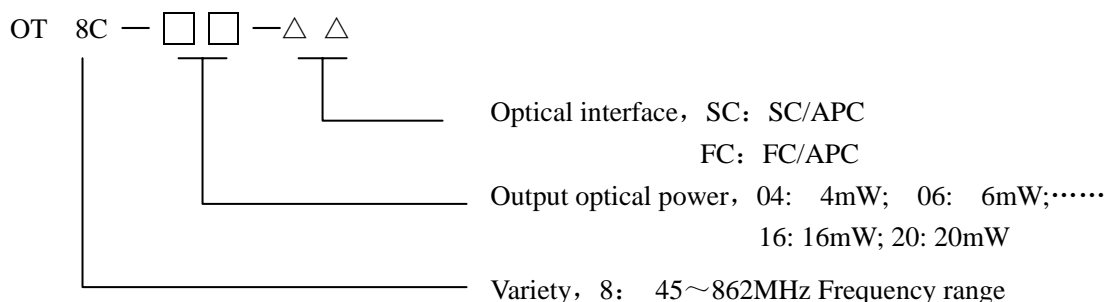


power and temperature of the laser. And sampling, A/D convert module and communications interface circuit collect its operating status data including output power, bias current, temperature, cool current, +24V operation voltage. This is easy to read and configure parameters on LCD panel and network management system (support transmission communication protocol) can receive the parameters via RS-485 or RS-232 interface, remote status monitoring, and auto alarm for fault, to ensure guarantee long-term operation of the optical transmitter in its optimized status.

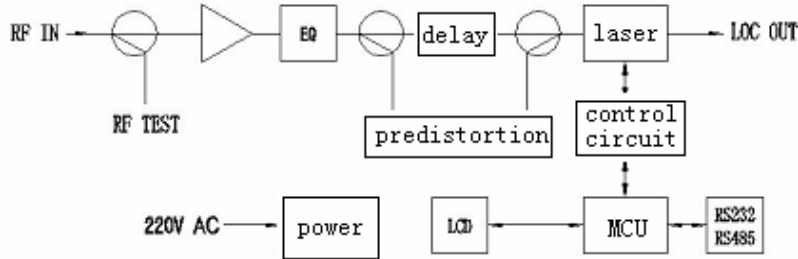
## Feature

- Designed for CATV system, data communication, delivering analog or digital TV signal and compressing data information.
- Working in 1310nm wavelength.
- High performance DFB laser.
- RF input bandwidth: 47~860MHz.
- Advanced pre-distortion correction circuit to improve the performance.
- Front panel provides RF test point, LCD display to show local operation status.
- MCU real-time controlling.
- Standard RS-485 interface.

## Product identification system



**Block diagram**



**Specifications**

	Note	OT8C	Unit
Optical wavelength		1310 (±10)	nm
Optical output power			
OT8C-04		4~<6	mW
OT8C-06		6~<8	mW
OT8C-08		8~<10	mW
OT8C-10		10~<12	mW
OT8C-12		12~<14	mW
OT8C-14		14~<16	mW
OT8C-16		16~<20	mW
OT8C-20		≥20	mW
Standard RF input level			
59 channels	1	80	dBμV
Frequency range		47~862	MHz
Flatness		±0.5	dB
RF input impedance		75	Ω
RF input return loss		16	dB
RF input test point		-20±1	dB
C/N		(See link loss performance)	dB
C/CSO		>60 (See link loss performance)	dB
C/CTB		>65 (See link loss performance)	dB
Optical connector	2	SC/APC or FC/APC	
Environmental temperature		0~+50	℃
Power supply		220(50Hz)	VAC
Power dissipation		35	W
Dimensions (L)*(W)*(H)		44×483×415	mm
Weight		4.5	kg

- Notes: 1. Different optical output matches different RF diver level.  
 2. If customer doesn't select optical connector, we will provide SC/APC.

## OT7C & OT8C link loss performance

Link loss (dB)	OT8C-04	OT8C-06	OT8C-08	OT8C-10	OT8C-12	OT8C-14	OT8C-16	OT8C-20
4								
5								
6	52							
7	<b>51</b>							
8	50	52						
9	49	<b>51</b>	52					
10	48	50	<b>51</b>	52				
11		49	50	<b>51</b>	52			
12		48	49	50	<b>51</b>	52		
12.5			48	49	50	<b>51</b>	52	
13				48	49	50	<b>51</b>	52
14					48	49	50	<b>51</b>
15						48	49	50
16							48	49
17								48

- Notes:
1. Ensure C/N value type with thick, other parameter is typical value.
  2. Test way according to <GY/T143-2000> standard.
  3. Optical receiver: OPS\*\*\* series product.
  4. 59PAL-D channel.