

QCE-LT3000 OPTICAL TRANSMITER



Description

The QCE-LT3000 1310nm optical transmitter, adopting an internal isolated DFB laser diode module, is designed to meet the challenges of delivering 100+ NTSC channels along with video and data over HFC network, with intelligent monitor and display module, efficient network management interface and reliable power supply configuration.

Features

- Operating bandwidth: 47—860MHz, output optical power from 4mW-24mW;
- High performance DFB laser diode module with internal isolation;
- Advanced pre-distortion correction circuit (PDC);
- Microprocessor automatically controls output power (APC), cooling / heating current (ATC), modulation ratio (AMC);
- With AGC/MGC switching button in the front panel;
- Adjustable attenuator (-20~0dB) in back panel can adjust input level of laser diode.
- LCD or VFD in front panel;
- MPU provides real-time display of major parameter: optical output power, operating current, internal temperature, modulation ratio, cooling / heating status;
- Support computer management with RS232/RS485 communication interface;
- High efficiency and stability switching power supply and optional supply backup system;
- 1U 19' standard case with a cooling fan and reliable thermal structure design to ensure high stability and long operating life of the laser module.
- Inside aluminum heat-sinking make the back panel more compact.

SPECIFICATIONS

Parameter		Value
Optical parameter	Wave length (nm)	1310±20
	Output Optical Power (mW)	2、 4、 6、 8、 10、 12、 14、 16、 18、 20、 22、 24
	Link Losses (dBm)	3、 6、 8、 9、 10、 10.8、 11.5、 12、 12.5、 13、 13.4、 13.8
	CNR (dB)	51
	CTB (dBc)	65
	CSO (dBc)	60
	Connector	SC/APC
RF parameter	Bandwidth (MHz)	47~860MHz
	Input Impedance (W)	75
	AGC Accuracy (dB)	±3/±0.3
	Input Return Loss (dB)	≥16 (47-550MHz), ≥14 (550-750/860MHz)
	Input Level Range (dBμV)	80±5
	Level adjustable range (dB)	0~20
	In-band Flatness (dB)	±0.75
	Level of Test Point (dBμV)	Input Level -5
General parameter	Input voltage (V)	AC 90~260
	Operating Temperature (°C)	0~+50
	Dimensions (mm)	432(L)×300(W)×40(H)
	Weight (kgs)	8



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1310nm Fiber Optic Transmitter

SPECIFICATION

Optical Performance:	
Optical Wavelength	1310±20nm
Out Power	4-22mW (2increments)
Optical Link Loss	7dBm (4-5mW), 9dBm (5-6.5mW), 10dBm (6.5-8mW) 11dBm (8 -10mW), 12dBm (10 – 12mW), 13dBm (12-15mW) 14dBm (15-24mW)
Optical Return Loss	≥60dB
Optical Connector	FC/APC, SC/APC

RF PERFORMANCE

RF Frequency	45-750 (862) MHz
RF Input Level	20dBmV
RF Flatness	±0.75dB
Input Return Loss	>16dB
RF Impedance	75Ω
RF Test Point	-20dB
Connector Type	F

LINK PERFORMANCE

CNR	see the chart
CSO	<-60dBc
CTB	<-65dBc

CNR vs. Optical Pass Loss (Channel Loading 59PAL-D, CTB=65dB, CSO=60dB)

Optical Pass Loss (dB)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4 - 5mw	53.4	53.0	52.6	52.2	51.8	51.4	51.1	50.5	49.8	48.9						
5 - 6.5mw				54.5	54.0	53.5	53.0	52.0	51.0	50.0	49.0	48.5				
6.5 - 8mw					54.1	53.7	53.2	52.6	51.9	51.1	50.2	49.2	48.0			
8 - 10mw						54.5	54.0	53.0	52.5	52.0	51.0	50.0	49.5	49.0		
10 - 12mw							56.0	55.0	54.0	53.0	52.0	51.0	50.0	49.0	48.4	
12 - 15mw								56.0	55.0	54.0	53.0	52.0	51.0	50.0	49.5	48.5
15 - 24mw									55.5	54.5	53.5	52.5	52.0	51.0	50.0	49.0

GENERAL

Power	90-260Vac (50/60Hz)
Power Consumption	<24w
Operating Temperature	0-50°C
Storage Temperature	-20°C-70°C
Dimension (L x W x H)	483mm x 385mm x 44mm (19" x 15" x 1.75")
Weight	4.5kg



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