

N1283-12

1310nm Transmitter

User Manual



XIAMEN NAGASIMA ELECTRONIC EQUIPMENT CO LTD

1. FEATURE

- High-quality DFB AOI laser unit as the optical source
- Pre-distortion circuit
- RF driving amplifying module ensuring the high quality and performance
- Modularization design and high-efficient switch power supply
- CPU monitor control the working statues, Cut off the optical power automatically when abnormal
- CPU monitor control the working statues
- LED indicates the working status and the alarm message
- Working bandwidth 47-862MHz, Net-management design
- Operating status alarm and parameter indication

2. Block Diagram

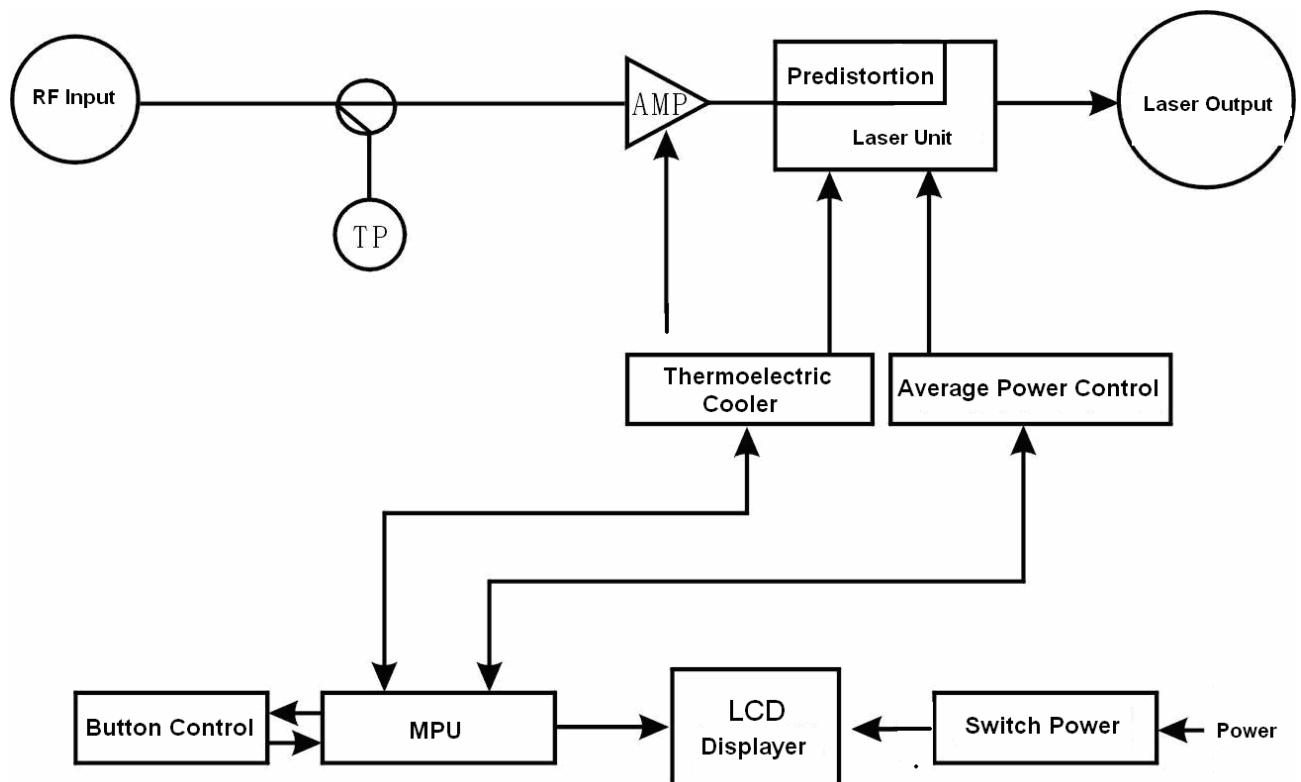


Figure 1

3. PANEL & REAR PANELS

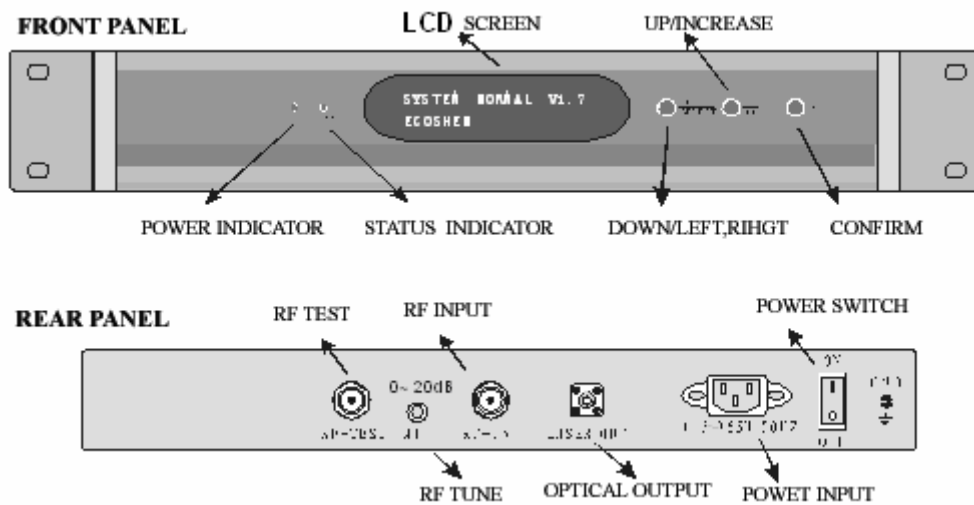


Figure 2

4. SPECIFICATION

ITEM	UNIT	PARAMETER
Optical Power	mW	10
Optical Wave length	nm	1310±20
Optical Fiber Connector	/	FC/APC
Operating Frequency	MHz	47~862
RF Input Level	dBμV	78±6
Flatness In Band	dB	±0.75
Input Impedance	ohms	75
Input Return Loss	dB	≥16
Composite Triple Beat	dB	65
Composite Second Order	dB	60
CNR	dB	51
Power Supply(50Hz)	VAC	100~265
Power Consumption	W	24
Operation Temperature	°C	0~45
Dimension	mm	483×381×44

5. Operation and Alarm Display

Insert power cord, front panel LED display "Please wait...", POWER indicator become red and ALARM indicator become yellow(orange red), system begin self-checking. 8 seconds later, system is set to normal working station and the LED panel display "System normal" as following picture, ALARM Indicator become green.



The control system monitor the working status of laser unit, display the status and indicate alarming and failure details.

Press the DOWN/ UP function button, the LED panel can display the key working parameters.

- ① Transmitter Model:
- ② Transmitter Serial No:
- ③ Power supply monitor: the control system constantly monitor the power supply to the Laser Unit, when power supply is normal, the LED panel can display the voltage values; the normal range for 5V power from 4.5V to 5.0V 10% bias, for 24V power from 18V to 28V. Whenever any Voltage go out of the range, the ALARM indicator become blinking yellow and automatically shut down the power supply to laser unit.



- ④ Laser unit temperature monitor: the laser unit should work at 15°C ~35°C. LED can display the real temperature as the following picture. When the temperature beyond the limit, the ALARM indicator become blinking yellow and automatically shut down the power supply to laser unit.

- ⑤ Laser unit cooling current monitor: the rated current for laser unit cooling is +210mA: When the current in appropriate level, LED panel can display the current value. When the current exceeds 1400mA, the ALARM indicator become blinking yellow and automatically shut down the power supply to laser unit.



- ⑥ Laser diode bias current monitor: the rated laser diode bias current is 58mA. When the bias current in appropriate level, LED panel can display the bias current value. When the current exceeds 75mA, the ALARM indicator become blinking yellow and automatically shut down the power supply to laser unit.

- ⑦ Real optical power output monitor: the rated optical power output is $10 \pm 1mW$. The LED panel can display real optical power output as following picture.



6. ALARM PROCESSING

When alarming, the LED panel display “SYSTEM ERROR ”, and the Buzzer sound. When pressing ENTER button, the buzzer mute, by pressing UP/DOWN buttons, the LED panel displays the parameters, when goes to the error item, the LED show “ERROR” as well as the parameter as the following picture.



LD TEMPERATURE
>35°C ERROR

CAUTION:

1. The transmitter should be well grounded, the impedance to earth should less than 4Ω .
2. Do not use this equipment under very cold, high temperature and high humidity environment.
3. To ensure the optical return loss $\geq 45\text{dB}$, the optical connectors should be keep clear and be washed by using Alcoholic.
4. When laser unit is working, don't directly watch the optical outlet for preventing eye burning

NOTE

If you have any questions or need further information, please feel free to contact us:

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