User guide Content

一、 Safety Tips

(一) Power Requirements

Digital Power 5V DC（50mA）、Driving Power 5V DC（300mA）。

(二) the safety Note of use

Befor using the optical modules, in order to avoid any damage of optical modules possibility, please read the following details:

ΔThe output of optical fiber module should be avoided with hard object, dirty object.please clean the fiber face befor using it,and cover the lid when it do not work,so that it can avoid the dirt and poison gas to ablate.

Δ This is accurate product，high relibility，but maintainning is very complicated, it need many equipments,so when it do not work,please connect with us.It does not allow to disassemble,maintain by yourself.

The notice of using switch moudle:

Δ Make sure the correcting with on-line，the pin defication of control interface, Model on-line chart Reference base pin definition, Light module on-line schematic drawing.you must make it work After determination on-line unmistakable.

Δ When there is some light into the optical moudle,please do not stare at the fiber face. because the laser radiation is not visible, but it can hurt the eyes.

ΔIt should be prohibited use optical modules in outdoor.

ΔThis device can not close to fire, and cat not to be bulled.

ΔWhen we need to amend the external circuitry, please switch off the power first, then disconnect the Line of Control Module. On the Line of Control should be prohibited charged hot-swappable.

ΔSignal level control for TTL levels.

二、Overview

Features：

●Low Loss, High Reliability

●Parallel interface.

●Modularizing Design.

Applications:

●Remote Fiber Monitoring System

●Self-healing fiber optic network formed

●Production test equipment

●Integrated optical subsystems

Specifications：

Wavelength Range：620~1625nm

Insertion Loss：<1.2dB（with optical linker）

Cross-Talk：≤－60dB

Switching Time：≤10ms（Switching to next channel）

Repeatability：≤0.02dB

Operation Temp：－5 ~ 55 ℃

Storage Temp: -20℃～70℃

Return Loss：≥50dB（SM）

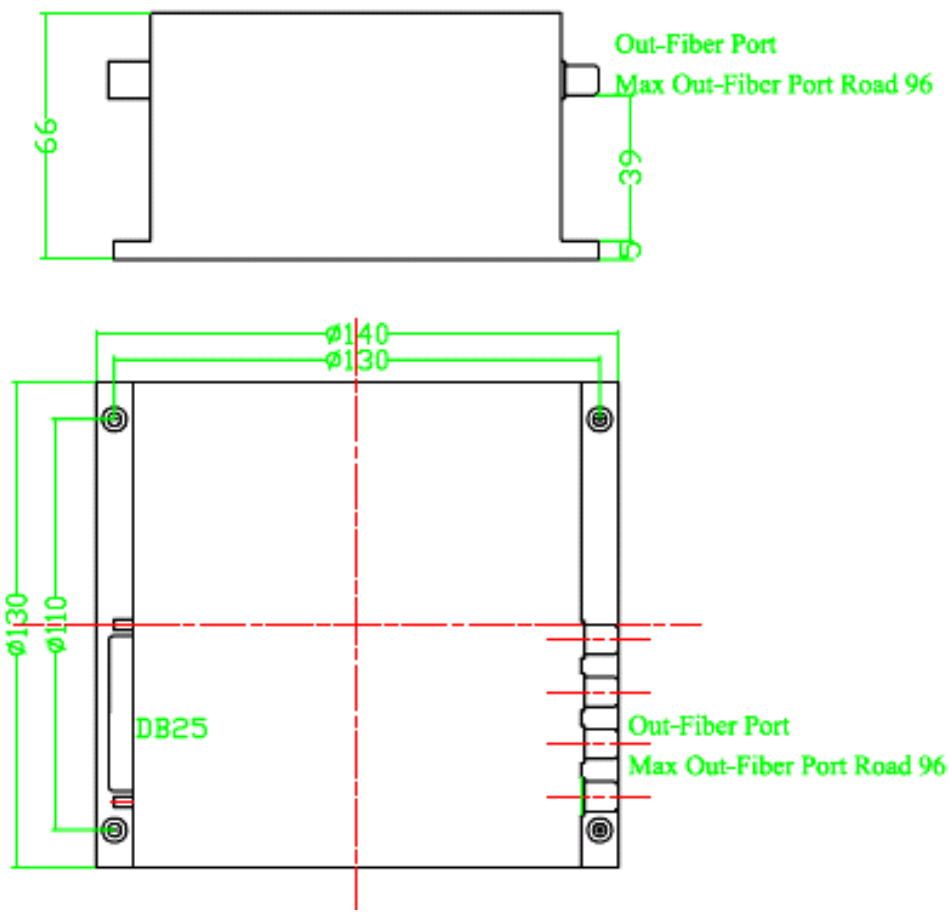
Operating life：10^7次

Power: +5V

三、Pin definition

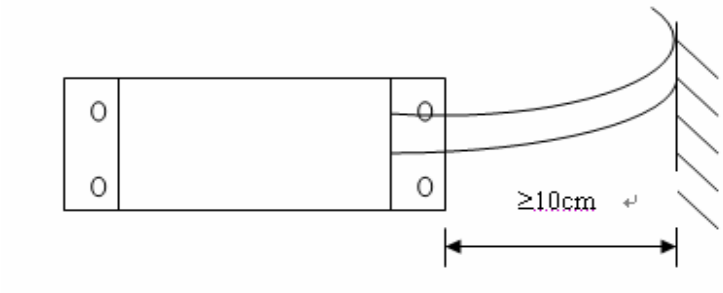
Pin Number	Signal Direction (in/out/power)	Name	**Function**
2	In	D0	D0-D4 data bits for binary, choose 1 ~ 32 channel For exsampl ： 0000000b=channel 1； 1111111b=channel 72。 D6 is hight ，D0 is low。
3	In	D1	
4	In	D2	
5	In	D3	
6	In	D4	
10	In	D5	
13	In	D6	
14	In	D6	
11	In	/RESET	LOW reset, high-data-effective.
7	Out	/READY	LOW prepared reset or receive data.
8	Out	ERROR	The high level indicated that has the wrong occurrence.
15	Power in	5V	Digital circuit power
12	Power in	5V	Electromechanical power
1,9	Power	GROUND	GND

四、 Optical module size sketch

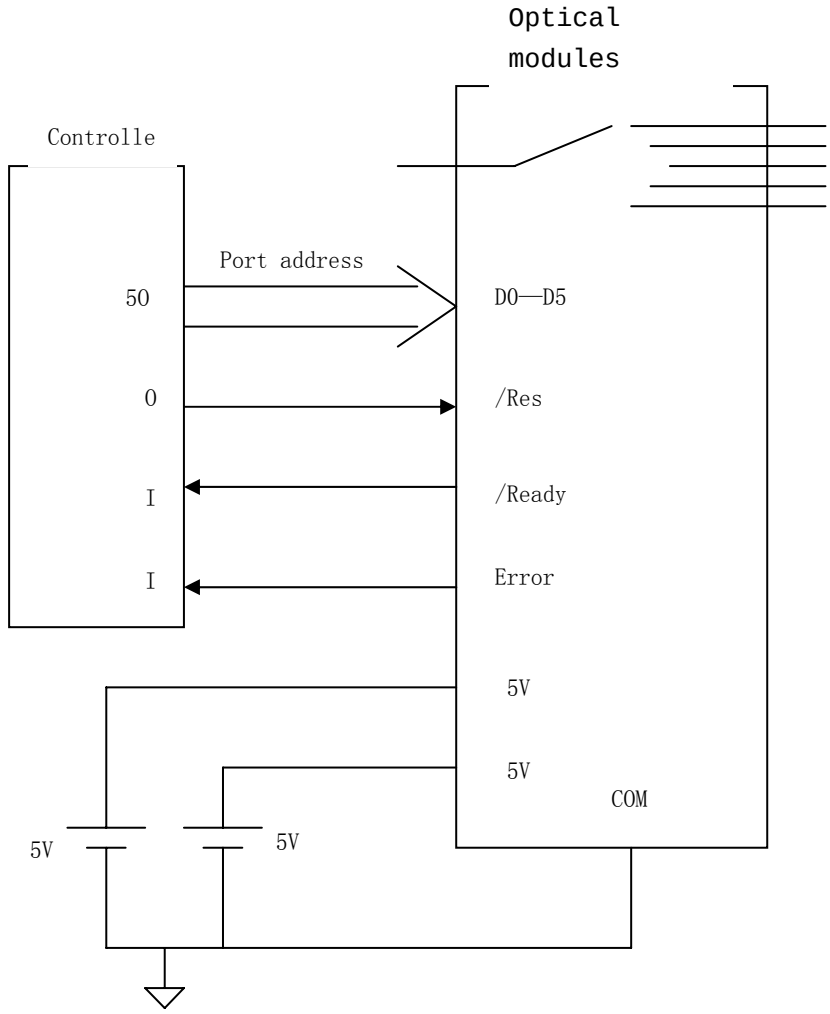


1×72 Optical module size (unit： mm) (L)140×(W) 130×(H) 66

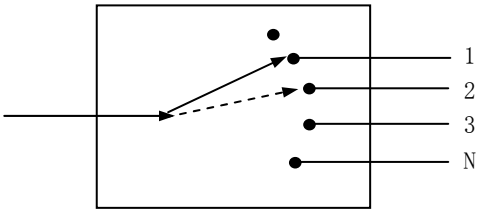
Attention: When install the light module, the optical fiber core do not the overbending (be possible under reference chart), in order to avoid influence light module performance index.



五、optical modules on-line Indicate



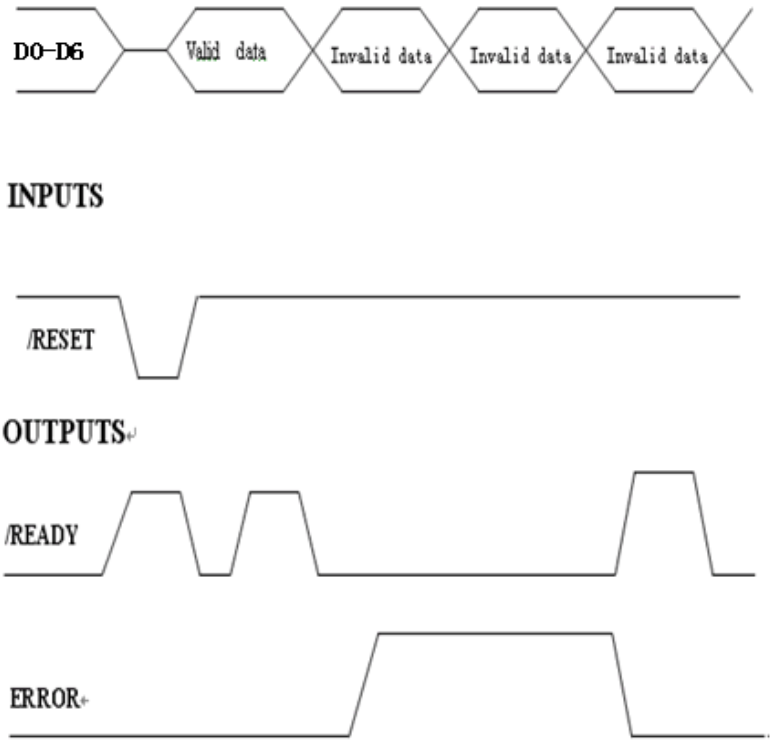
optical modules switch



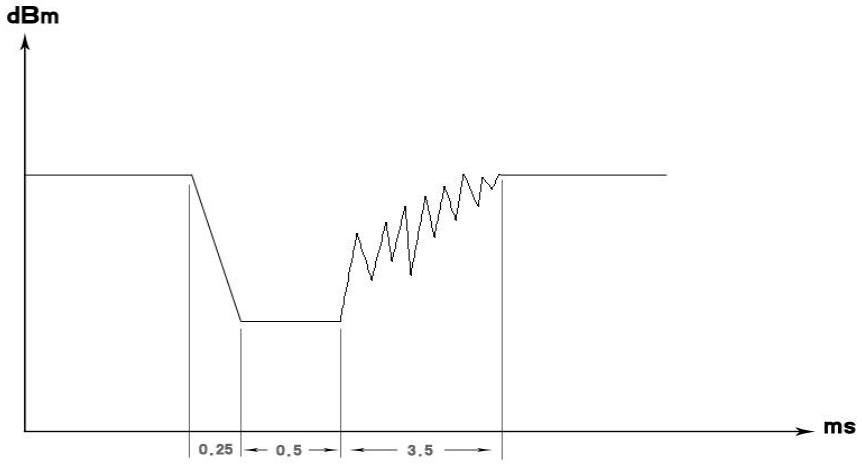
R= Reset position

Figure 2

六、Timing diagrams



working diagram



七、Using

1、The optical module cantain the control circuit connection and the input output optical fiber. The input outputs optical fiber's marking is: The most left side of the optical module is input fiber that 0, other are in turn 1, 2, 3 .....8 output fiber

2、The optical module realizes the connection through 15 needle connection plug with the external control electric circuit, connection pin definition as shown in Table 1.

3、After the power is on, the optical module automatic reset (Figure 2 the R position), the path of rays will be at the disconnect state, /READY and the ERROR two data lines is at low level (i.e. is prepares to accept data and not error status), by now might carries on the cut or the replacement through the data line either the replacement line.

4、Port select: Sets at the /RESET high level, selects 1~72 groups again through data line D6-D0. As a result of light module for 1×N (N≤72, N maximum value by customer purchase light switch's channel number decision), when the selection data surpasses channel N (N≤72), the module does not cut, juxtaposes the ERROR high level, until the input correct data or the replacement, ERROR only then restores for the low level.

5、Replacement operation: Sets at the /RESET low level, will carry on the replacement operation, the light module will reposition (Figure 2 the R position), the path of rays will be at the disconnect state. After the replacement had ended, /READY and the ERROR two data lines are the low levels.

6、After light module power failure, the light module still maintained on the original channel (, but path of rays's insertion loss can increase). After comes the electricity, the light module carries on the replacement operation (Figure 2 the R position), the path of rays is at the disconnect state, waited for that receives controller's control. If data line D6-D0 maintains at the original condition, on light module

automatic cut over original channel.

7、When light module when processes the data (in replacement or channel cut process), /READY is the high level; The data processing finished, /READY was the low level. When the input not correct data, ERROR is the high level; Until the input correct data or the replacement, ERROR only then restores for the low level. To carry on the control well, needs carries on the monitoring to /READY and the ERROR two data lines, finds out the light module operational aspect.