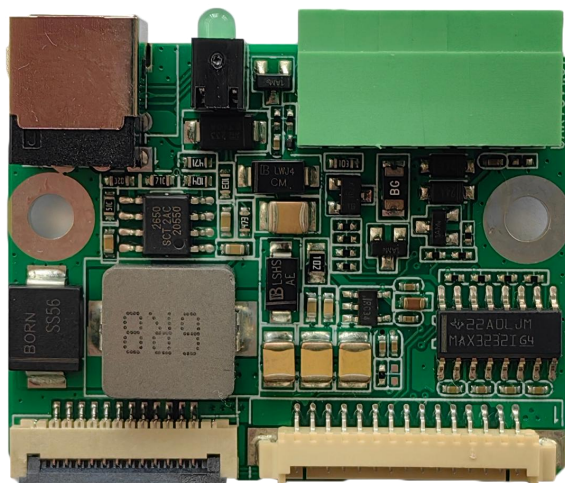


SLD6020 接口板说明手册



With the English version following
the Chinese version.

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版本记录

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第 1 章 概述

SLD6020 是一款方便射频模块测试和组装整机的接口板。该系列产品采用工业级设计。板子可以直接连接各种模块：SIM7100、SIM7200、SIM7300、SLR1200、SLR5600 等模块。提供 RS232，1 进 1 出 GPIO 口，驱动能力强，可以直接驱动指示灯、报警器等外设。基于板子可以方便地对射频模块性能进行评估，也可配合外壳做成固定式读写器，结构紧凑、方便安装、性能稳定，适合各种工业应用场合。同时方便进行 GPIO 操作、上电控制等测试。接口板供电 9-24V，外接电源供电请使用配套的电源适配器供电（12V/2A）。

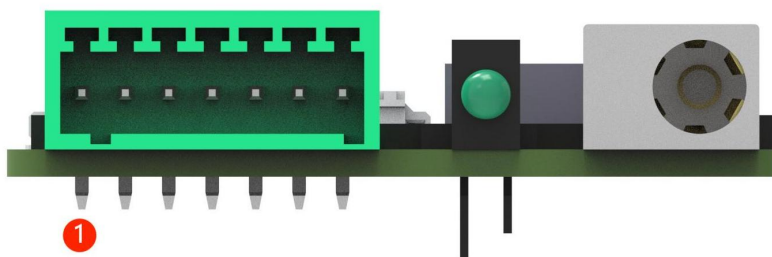
硬件接口	
通信接口	RS232（9600-460800ps）
指示灯	电源指示灯（绿灯）
GPIO	1 路输入，1 路强驱动输出（每路拉电流可以达到 250mA）
供电/功耗	
供电	供电 9-24V 标配适配器 12V/3A
功耗	单板工作状态 0.5W
环境特性	
工作温度	-25℃ - +65℃
存储温度	-40℃ - +85℃
湿度	相对湿度：5-95% 非冷凝
安全性	
单板	接触放电:8KV
尺寸/重量	
长宽高	35mmx45mmx11.6mm
重量	14g

第 2 章 技术参数

第 3 章 硬件说明

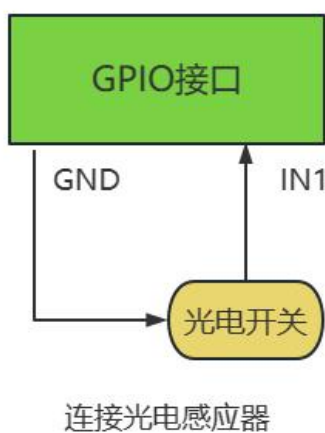
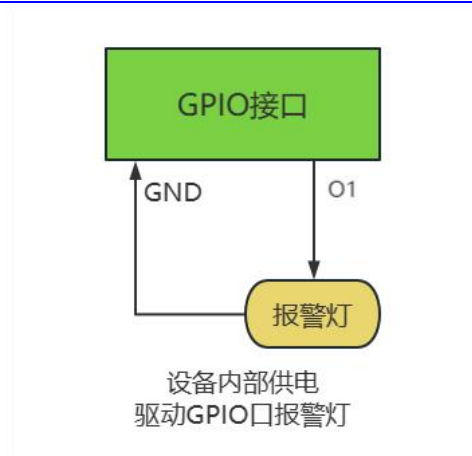
3.1 接口说明

GPIO:



接口名称	序号	电气特性
IN1	1	GPIO 输入，输入电压范围是（0-24V） 输入高电压 （1.2V-25V） 判定为逻辑 0 输入低电压 （0-0.5V） 判定为逻辑 1
O1	2	GPIO 输出，输出电压范围：0 至 (VGPI0-0.3V) 拉电流能力：内部供电时四路总电流可到 1A, 单路 250mA 外部供电时每路可以达到 1A 设备逻辑 0 输出高电平 （VGPI0-0.3V） 设备逻辑 1 输出低电平 （0-0.3V，内部 10K 电阻下拉）
GND	3	参考地
RX	4	232 接收端
TX	5	232 发射端
EN	6	1.2V-25V 关断；0-0.5 or NC 使能。
VIN	7	开发板输入电源 9-24V

3.2 GPIO 接线说明



GPIO 测试可以通过 DEMO 程序 ModuleReaderManager.exe 实现。按照上面的步骤和模块建立通信以后，点击参数设置，然后出现下面的界面，红色框中所示，可以设置 GPO 的状态，以及获取 GPIN 的状态。通过设置 gpo 或者触发 gpi 外置设备可以查看状态是否发生变化。如果不需要用到 GPIO 口，GPIO 引脚悬空即可。

Target: A 编码: RF_MODE_7

写模式: 字写 获取 设置

GPIO设置

☐ GP01 ☐ GP02 ☐ GP03 ☐ GP04 设置

☒ GPI1 ☐ GPI2 ☐ GPI3 ☐ GPI4 获取

IP信息

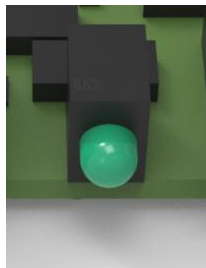
IP地址 192.168.1.100 子网掩码 255.255.255.0 ☐ 以太

网关 192.168.1.254 MAC地址 1E306CA2455E ☐ Wifi

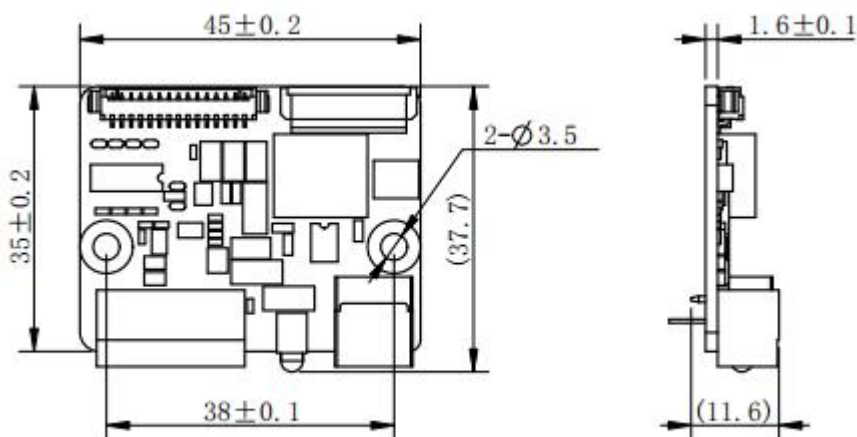
☐ 手动指定

3.3 指示灯介绍

绿色指示灯：电源，上电后，绿灯亮起



3.4 外观尺寸 (单位:mm)



第 4 章 使用说明

4.2.1 RS232 通讯

选择 RS232 串口通信，接上通讯接口后，给板子上电。可以通过 232 连接线与 GPIO 上的 TX RX GND 连接。



再将一公一母的串口直通延长线连接上位机和 232 连接线。打开测试 DEMO 程序 ModuleReaderManager.exe。填写对应的串口号。选择对应的天线端口数点击连接（具体看板子连接的射频模块天线端口数，例如 SIM7100 有一个天线口，选择单天线，SIM7200 有四个天线口，选择四天线，SIM7300 有八个天线口，选择八天线）。连接上以后就可以进行相关模块测试。具体参考 DEMO 程序操作说明。



注：模块默认设置波特率 115200bps。如果修改了模块波特率，这需要使用串口连接时，需要选择对应波特率。



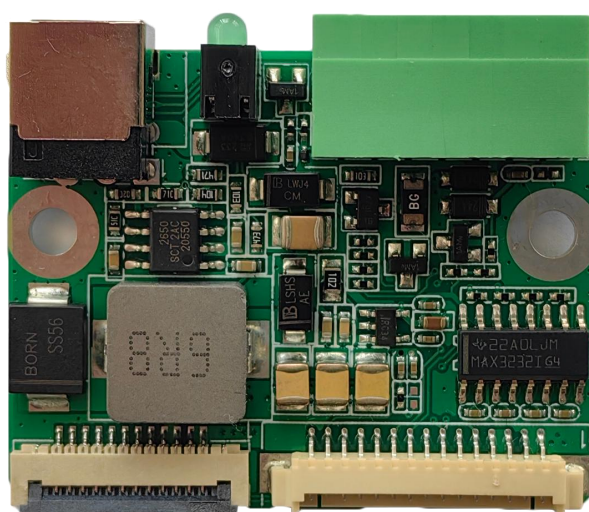
如使用的 DOME 版本没有波特率选择功能，则在地址后+:（对应波特率），如 COM9:57600



SLD6020

Connector Board

User Manual



Number: 2023042701

Version: V1.0

Date: 2023/04/27

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Version Logging

File Serial Number	Ver. Numb er	Modify By	Modify Date	Modify Reason	Modify Contents
	V1.0		2023-04-27	Initial Version	None
Note: Each time modify this file, must fill this form.					

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1 Overview

SLD6020 is an interface board that facilitates RF module testing and assembly of the complete machine.

This series of products adopts industrial grade design. The board can directly connect various modules.

For example: SIM7100, SIM7200, SIM7300, SLR1200, SLR5600 and other modules. Provides RS232, 1 in and 1 out GPIO port, with strong driving capability, which can directly drive peripherals such as indicators and alarms.

The performance of the RF module can be easily evaluated based on the board, and it can also be used with the housing to make a fixed reader/writer. It has a compact structure, easy installation, and stable performance, and is suitable for various industrial applications. At the same time, it is convenient for GPIO operation, power-on control and other tests. The interface board supplies 9-24V power. For external power supply, please use the matching power adapter (12V/2A).

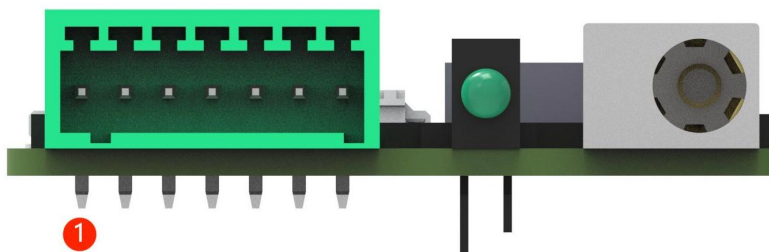
2 Technical Parameters

Hardware Interface	
Communication Interface	RS232 (9600-460800ps)
Indicator Light	Power Indicator Light (green light)
GPIO	1 input, 1 strong drive output (each channel can draw current up to 250mA)
Power Supply/Consumption	
Power Supply	Power supply 9-24V standard adapter 12V/3A
Power Consumption	Single board Working Status: 0.5W
Environment Features	
Working Temp	-25°C - +65°C
Storage Temp	-40°C - +85°C
Humidity	Relative humidity: 5-95% non-condensing
Safety	
Single Board	Contact discharge:8KV
Dimension	
L*W*H	35mmx45mmx11.6mm
Weight	14g

3 Hardware Description

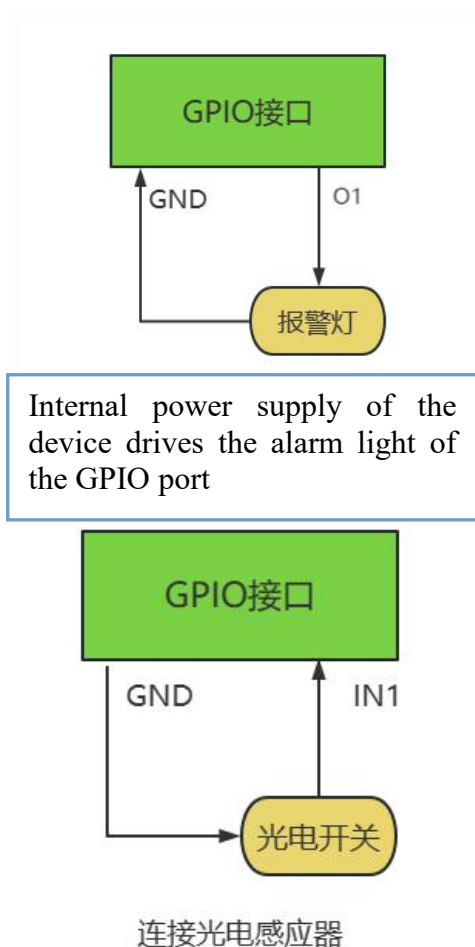
3.1 Interface Description

GPIO:



Interface Name	Serial Name	Electronic Features
IN1	1	GPIO input, input voltage range: (0-24V) Input high voltage (0.66-24V) judged as logic 0 Input low voltage (0-0.5V) judged as logic 1
O1	2	GPIO output, output voltage range: 0 to (VGPI0-0.3V) Current pulling capacity: When internally powered, the total current of four channels can reach 1A, and a single channel can reach 250mA. When externally powered, each channel can reach 1A Device logic 0 output high level (VGPI0-0.3V) Device logic 1 outputs low level (0-0.3V, internal 10K resistor pull-down)
GND	3	Ground
RX	4	232 receiving end
TX	5	232 transmitting end
EN	6	1.2V-25V power off;0-0.5 or NC enable
VIN	7	Develop Board Input Power :9-24V

3.2 GPIO wiring description

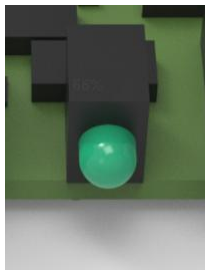


The GPIO test can be implemented by the DEMO program “ModuleReaderManager.exe”. After establishing communication with the module according to the above steps, click the parameter setting, and then the following interface will appear, as shown in the red box, you can set the status of GPO and obtain the status of GPIN. You can check whether the status has changed by setting the “gpo” or triggering the “gpi” external device. If the GPIO port is not needed, the GPIO pin can be left floating.

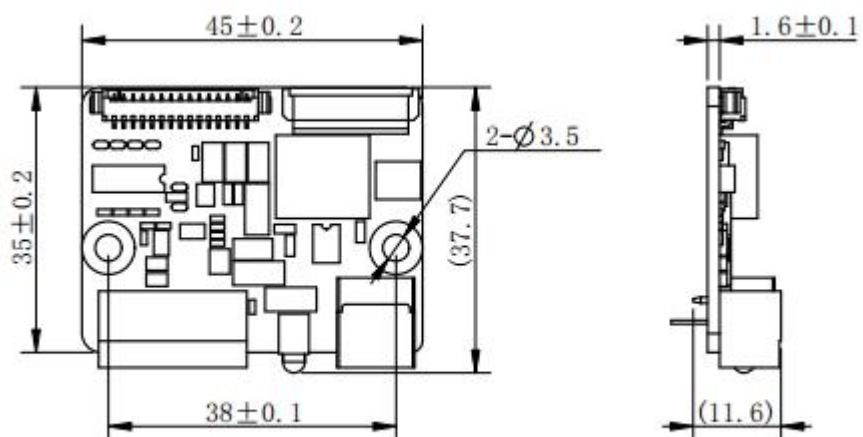
Target:	A	编码:	RF_MODE_7
写模式:	字写	获取	设置
GPIO设置			
☐ GP01	☐ GP02	☐ GP03	☐ GP04
☒ GPI1	☐ GPI2	☐ GPI3	☐ GPI4
			设置
			获取
IP信息			
IP地址	192.168.1.100	子网掩码	255.255.255.0
网关	192.168.1.254	MAC地址	1E306CA2455E
		☐ 以太 ☐ Wifi ☐ 手动指定	

3.3 Indicator Light Description

Green Indicator Light: Power, turn power on, green light on



3.4 Dimension (unit:mm)



4 Introduction of use

4.2.1 RS232 Communication

Select RS232 serial port communication, connect the communication interface, and power on the board.

It can be connected to the TX RX GND on the GPIO through a 232 connection line.

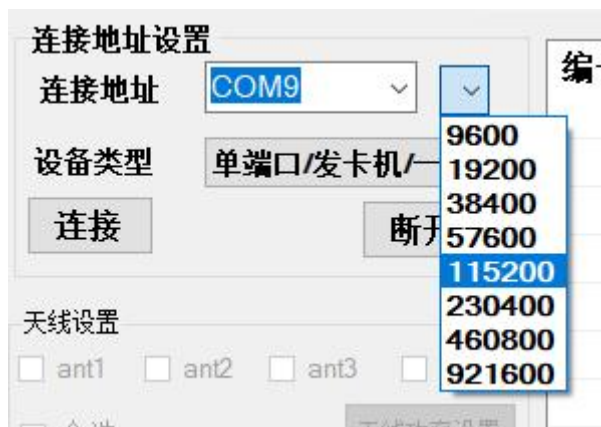


Then connect a male and a female serial port straight-through extension cable to the host computer and the RS232 connection cable. Open the test DEMO program “ModuleReaderManager.exe”. Fill in the corresponding serial port number. Select the corresponding number of antenna ports and click Connect (refer to the number of RF module antenna ports connected to the board. For example, SIM7100 has one antenna port, so choose single antenna; SIM7200 has four antenna ports, choose four antennas; SIM7300 has eight antenna ports, choose eight antennas). After connecting, can test related modules. For details, refer to the DEMO program operation instructions.



Note: The default baud rate of the module is 115200 BPS.

If the module baud rate is modified and you need to use the serial port connection, you need to select the corresponding baud rate.



If the DOME version used does not have the baud rate selection function, then +: (corresponding to the baud rate) after the address,

Eg. COM9:57600

