

DATASHEET

E02 Module Converter

Enquiry: info@dypsensord.com

<https://dypsensord.en.alibaba.com>

SHENZHEN DIANYINGPU TECHNOLOGY CO., LTD.



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Product Description

1. General

The E02 module is a switch module designed by Dianping, which is used to realize the mutual conversion between TTL/COMS level and RS232 level.

2. Features

- 5~12V power supply
- XH2.54 terminal and DB9 female dual interface, easy to connect
- Working temperature -15°C to +60°C
- Storage temperature -25°C to +80°C
- Anti static electricity design which conforms to the IEC61000-4-2 standard.

Module Specification

1.Environment

Item	Minimum value	Typical value	Max value	Unit	Remark
Storage Temp	-25	25	75	°C	
Storage Humidity		65%	90%	RH	(1)
Operating Temp	-15	25	60	°C	
Operating Humidity		65%	80%	RH	(2)

Remark:

- 1.Environment temperature is 0-39℃, max humidity is 90%(Non-condensation)
- 2.Environment is 40-50℃, max humidity is the highest at current temperature in nature

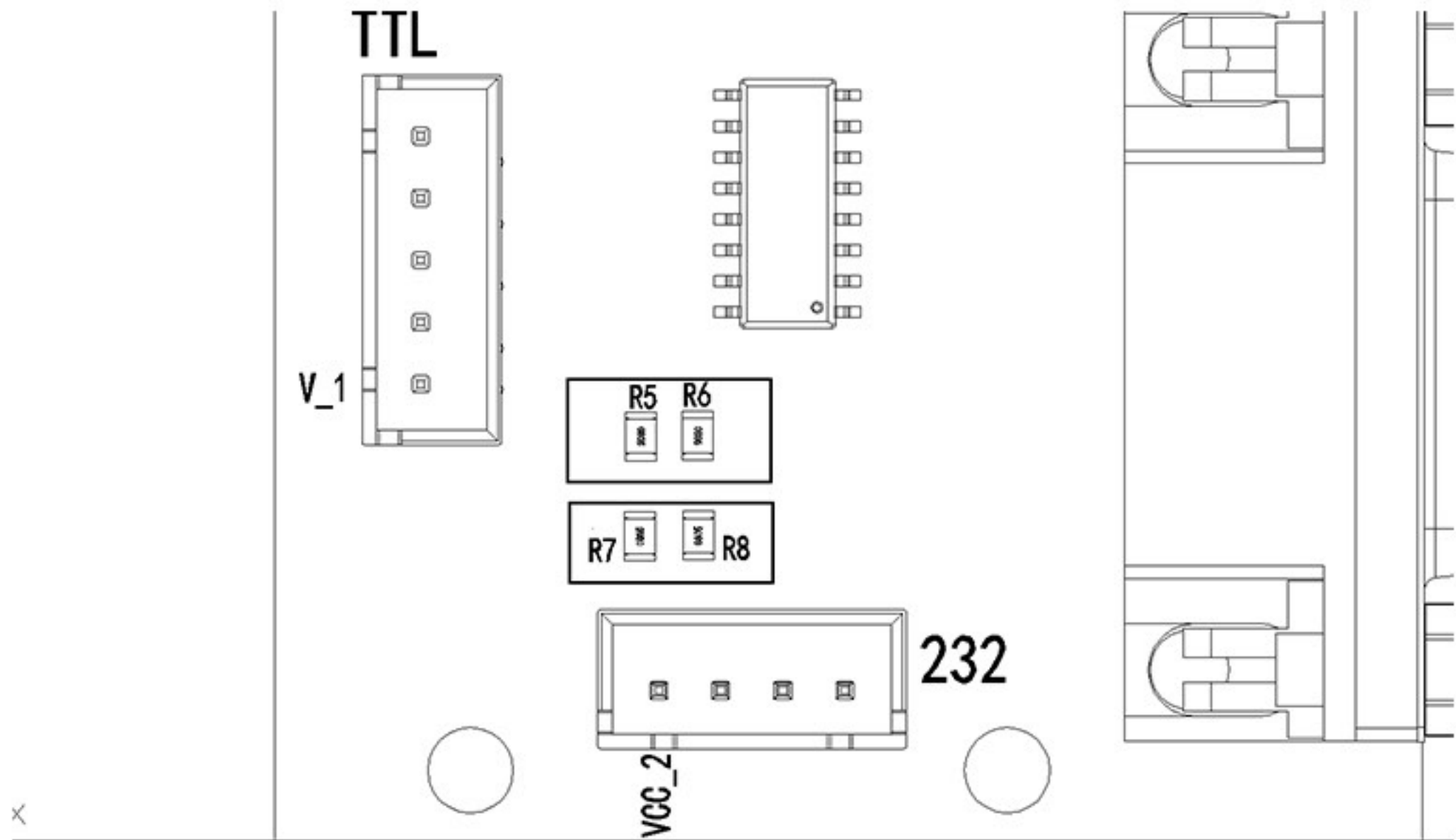
3.Electronics

Item	Minimum value	Typical value	Max value	Unit	Remark
Operating voltage	4.75	5	14	V	
Peak current			40	mA	Peak value
Input Ripple			50	mV	Peak value
Input Noise			100	mV	Peak value
ESD			±4K/±8K	V	(2)

The static electricity specification of the assembly line, contact static electricity should not be higher than ±200V, and air static electricity should not be higher than ±2KV.

The probe shell and output pin comply with the IEC61000-4-2 standard.

Voltage switching instruction

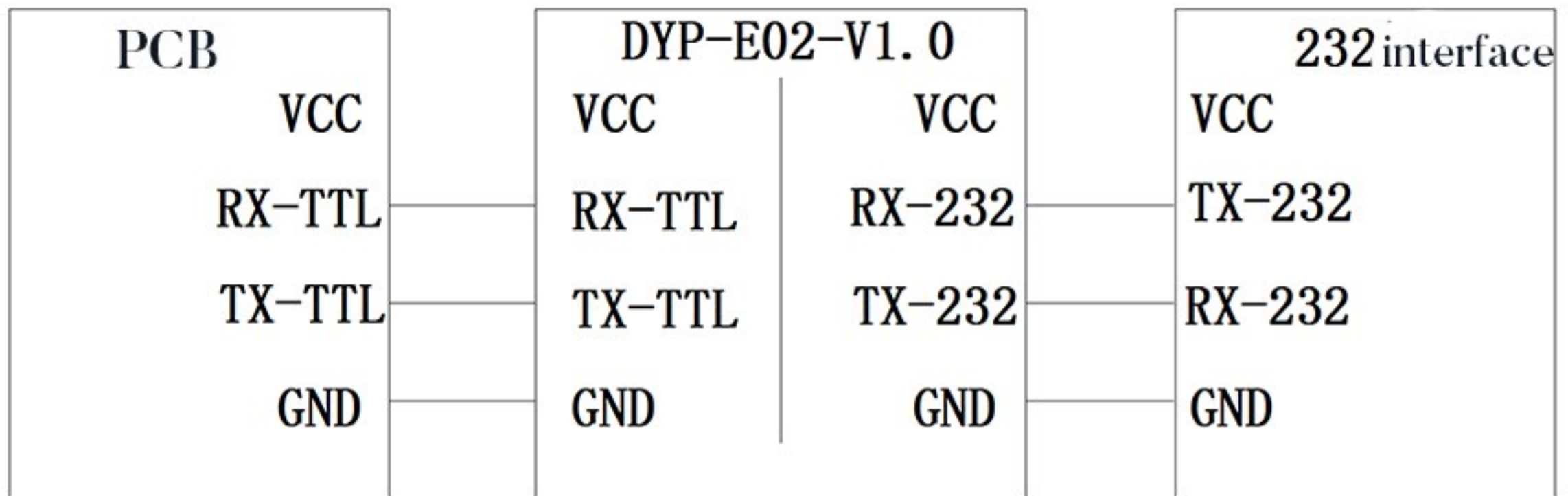


When R5 is welded with 0R resistor, R6 position is floating, VCC_1 pin is connected to VCC_0 pin, and the voltage of VCC_1 pin is equal to the supply voltage of VCC_0 pin. When R5 position is floating, R6 position is welded with 0R resistor, VCC_1 The pin is a 5V voltage output.

When R7 is welded with 0R resistor, R8 position is floating, VCC_2 pin is connected with VCC_0 pin, and the voltage of VCC_2 pin is equal to the supply voltage of VCC_0 pin. When R7 position is floating, R8 position is welded with 0R resistor, VCC_2 The pin is a 5V voltage output.

Note: The factory default VCC_1, VCC_2 and VCC_0 are connected.

Connection



Remarks: The VCC pin can be connected or not connected according to the actual application.

Reliable testing condition

No.	Description	Testing condition	sample QTY	remark
1	High temperature and humidity	65°C, 85%RH, Power ON@5V, 72hrs	3	
2	low temperature	-20°C, Power ON@5V,72hrs	3	
3	High temperature and humidity storage	80°C, 80%RH, storage, 72hrs	3	
4	Low temperature storage	-30°C, storage, 72hrs	3	
5	Vibration test	10-200Hz,15min,2.0G, XYZ three axes, each axis is 0.5 hours	3	
6	Drop test	120cm free fall, 5 times on wooden floor	3	

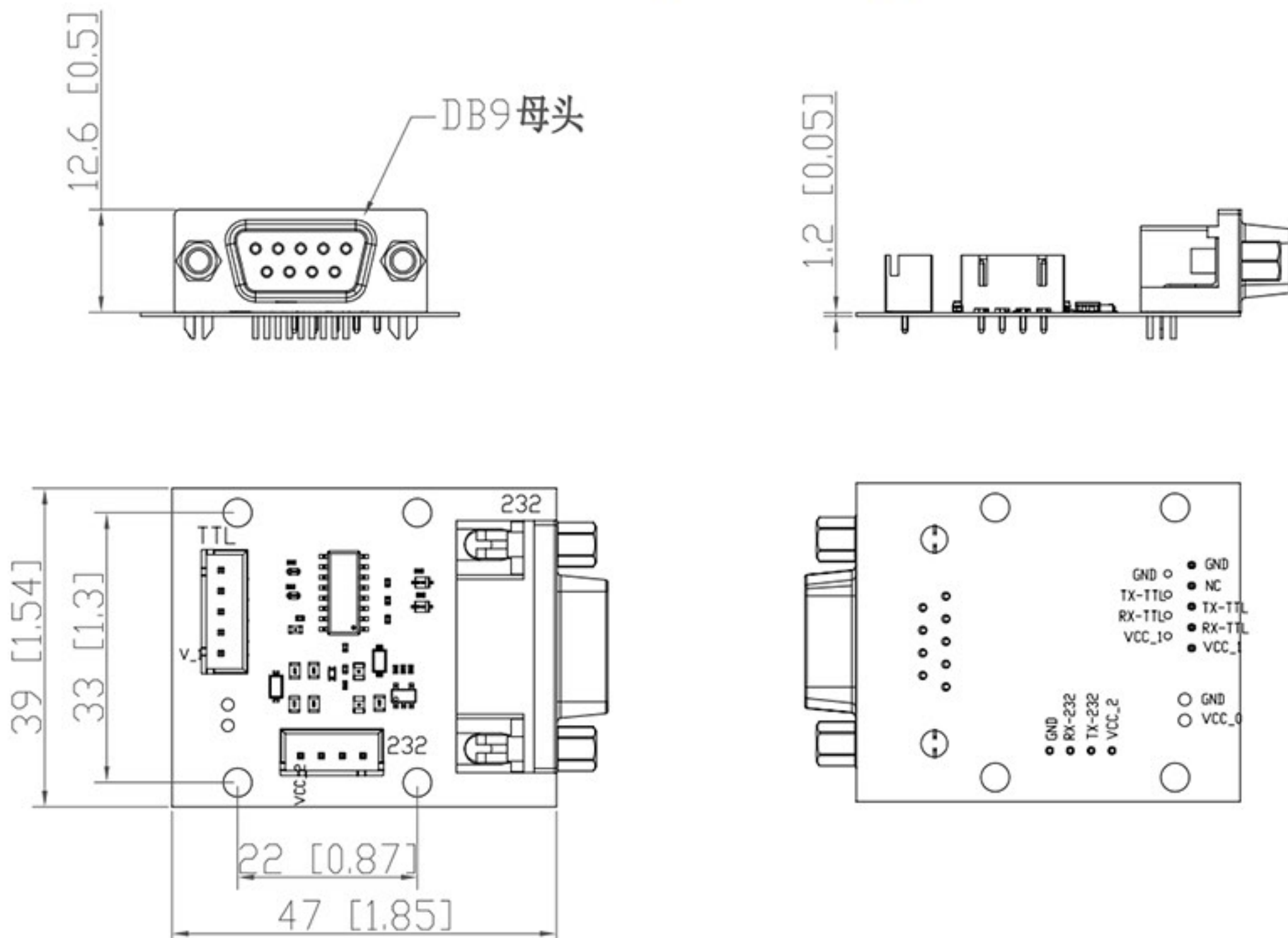
Note: After the test, the module is determined to be OK after the function test, and the performance degradation rate is $\leq 10\%$.

Notice

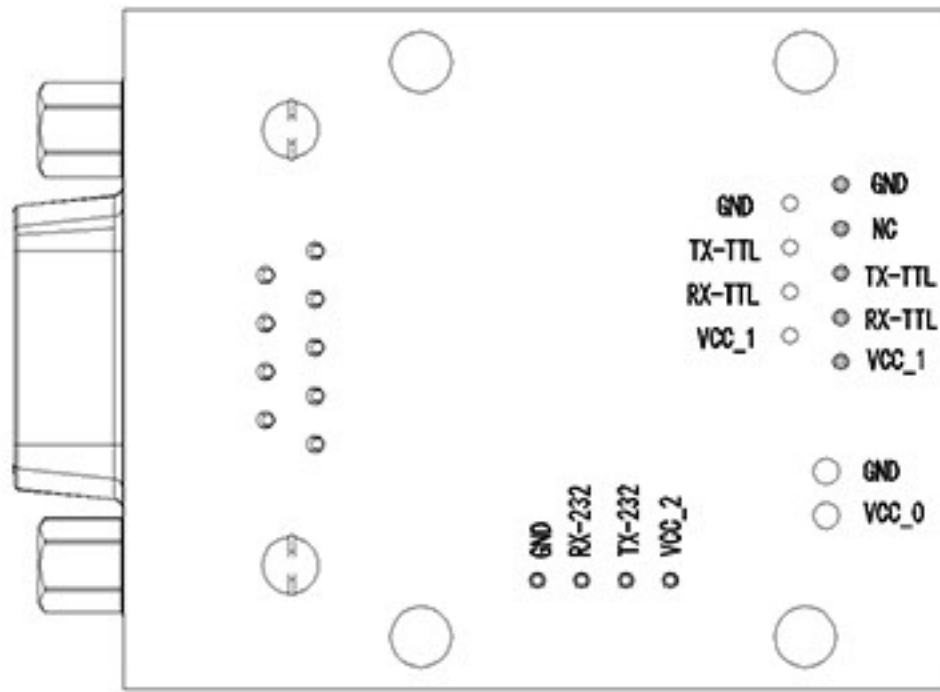
1. Please pay attention to the structural tolerances when designing. Unreasonable structural design may cause temporary abnormalities in module functions.
2. Please pay attention to the evaluation of electromagnetic compatibility when designing. Unreasonable system design may cause malfunction of the module.
3. When the boundary application of the product limit parameter is involved, you can contact after sale service dept. to confirm the relevant precautions.
4. The company reserves the right to change this document and update the functions without prior notice.

Mechanics

1. Mechanical Dimensions (mm-inch)



2. Pin out



Pin name	Description	Remark
VCC_0	Positive power supply	DC
VCC_1	VCC_0 power supply or 5V output	(1)
VCC_2	VCC_0 power supply or 5V output	(1)
GND	Negative power supply	
NC	Empty	
TX-TTL	TTL level TX output	
RX-TTL	TTL level RX output	
TX-232	232 level TX output	
RX-232	232 level RX input	

Note: (1) The output voltage of the VCC_1 and VCC_2 pins can be selected as the supply voltage or 5V output through the resistor.