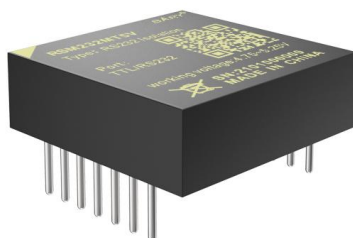




RSM232MT5V Specification

Single-speed RS232 isolation sending and receiving module

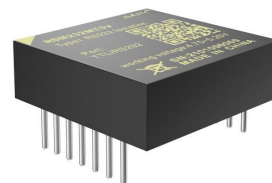


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Chengdu Ebyte Electronic Technology Co.,Ltd.

Chapter One Specification

1.1. Introduction

RSM232MT5VIt is a single-way full-duplex high-speed RS232 isolation transmission and receiver module, with an internally integrated high-reliability isolation power supply and a high-strength signal isolation chip, as well as a standard RS232 serial transmission and receiver chip and serial port protection devices.



The main function of the product is to convert the TTL logic level to a standard RS232 level, or to convert the RS232 level to a TTL level.

The product has an isolated power output of 5V / 50mA, with the maximum power of 0.5W. Import and output of 3000VDC electrical isolation, plastic seal ultra-thin design products can be easily embedded in the user equipment, to realize the connection function of RS232 interface isolation.

The RS232 port module has a TVS transient suppression device that protects its ports from the surge current caused by ESD, EFT, and lightning.

1.2. Product characteristics

- Product characteristics: 25.4*25.4*8mm;
- Traffic rate : 1200~256000bps;
- Isolate voltage: 3000V;
- Isolate voltage output: 5V/50mA 0.5W;
- Isolate output voltage: 5V/100mA;
- Working temperature : -40 ~ +85℃;
- Isolation power supply: the high-strength isolation DC-DC is integrated in the chip;
- Port protection: built-in TVS transient surge spike suppression;

Chapter Tow Specifications and parameters

2.1. Absolute Rating

No	Limit Parameter	Min	Max	Remark
1	inputvoltage	4.5	5.5	Vdc (When the empty load output around 6V)
2	outputvoltage	4.8	6	V
3	Maximum output current	0	50	mA (5VoutputMaximum current shall not exceed 50mA, otherwise it may be permanently damaged)

4	working temperature	-40	+85	ta=40℃, tc=85℃	
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2.2. Working Parameter

No	Main Parameter	Min	Typical value	Max	Remark
input	Input voltage	4.75	5	5.25V	Vdc(It is recommended to be greater than 5.25V)
	input ripple wave	-	-	<350	mV
	Input electricity	150	-	-	It is recommended to be greater than 150mA
	Communication level	2.8	3.3	5.25	V
output transfer	Output voltage	5.2	5.3	5.4	VIN=5V (idler)
	DC-DC efficiency	-	75	-	%(Maximum load time)
	transmission speed	1200	-	256000	bps
	Communication level TTL	2.8	3.3	5.25	V
Isolation and pressure resistance	input/output	2750	3000	-	VDC(Time of 1 minute, leakage current<5mA)
environm ent	working temperature	-40	25	+85	ta=40℃,tc=85℃
	Working humidity	20	-	90	%No condensation
	Storage temperature	-40	+25	+85	℃Store at room temperature and dry
	Store humidity	20	-	90	%Store at room temperature and dry
Other	Product size	25.4*25.4*8mm			
	Product weight	-	7.5	-	g

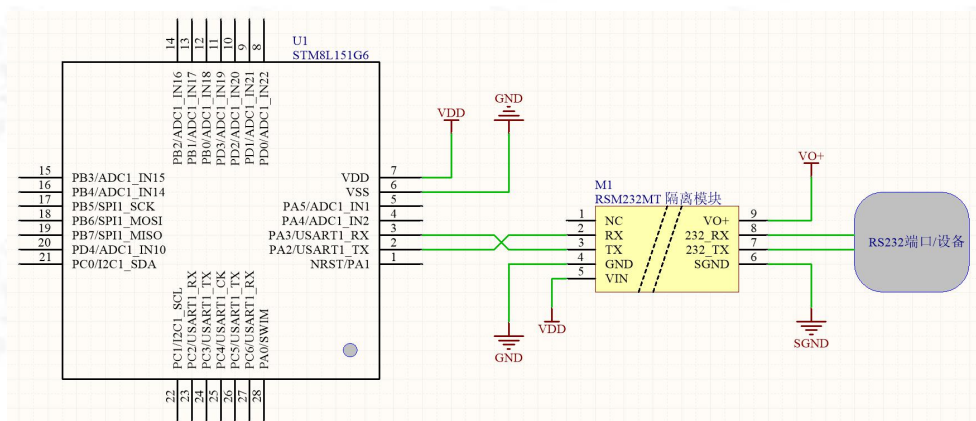
Chapter Three Basic operation

3.1. Matters need attention

- Please read the technical manual carefully before use, please contact our technical support;
- The maximum input voltage shall not exceed 5Vdc, otherwise the module's own isolation power supply output will exceed > 5.5V, without no need to care;

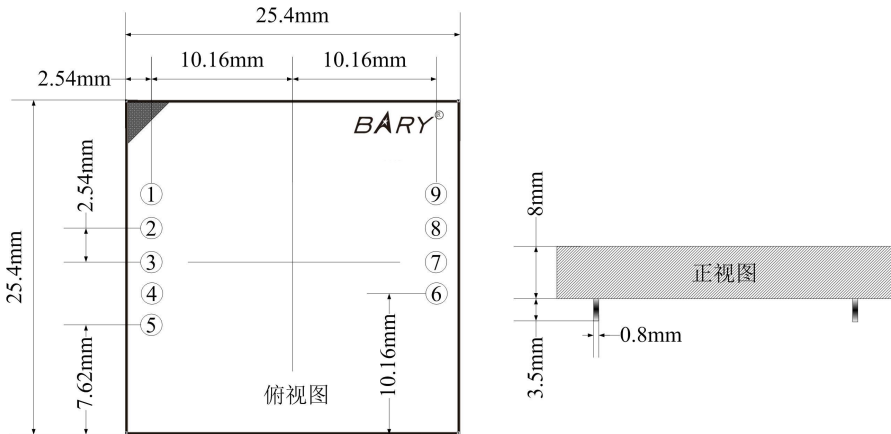
- If the user needs to use the module with the isolation 5V power supply output, please note that the input voltage is not higher than 5V, do not care;
- If the user needs to use the module with the isolation 5V power supply output, it is recommended to increase the level of pressure stabilization, do not need to care;
- During daily maintenance, the input power supply should be disconnect first;
- Please do not install the product in hazardous areas;
- DC power supply is used for the product power supply, and AC power supply is strictly prohibited;
- It is strictly prohibited to disassemble the products without permission to prevent equipment failure or failure;
- Operating this module requires certain professional skills, rigorous non-professional life operation!
- This product has no power supply reverse connection protection, please pay attention to the positive and negative poles, the wrong connection will cause permanent damage to the module;
- The products have been strictly inspected and quality controlled before delivery. In case of abnormal work or suspected internal module failure, please timely contact the nearest agent or our technical support company.

3.2. Typical application



Chapter Four Mechanical characteristics and pin definition

4.1. Product size



4.2. Feet definition

No	Feet name	Direction	Application
1	NC	-	Keep, not linked to the circuit
2	RXD	input	Module TTL serial port data input
3	TXD	output	Module TTL serial port data output
4	GND	input	DC Power input negative
5	VIN	input	DC Power input positive
6	SGND	output	Isolate voltage output negative, RS232 String reference ground
7	RS232_TX	output	Module RS232 serial port data output
8	RS232_RX	input	Module RS232 serial port data input
9	VO+	output	Isolate voltage output positive

Chapter Five Product types choosing

product model	output voltage	output volta	output	interface	way to install
RSM232MT5V	4.75~5.25V	5.0V	50mA	RS232/UART_TTL	Plastic seal plug-in

Revise the history

No	Edition	Date changed	Revision note	Maintain people
1	V1.0	20211228	The first edition, for the first release	LJ

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