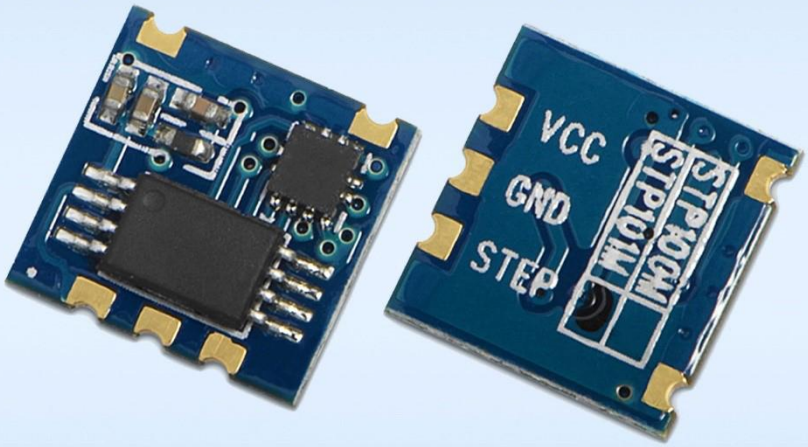
3D pedometer chipset
Pulse output for Wrist application

Product Specification



Catalog

1. Description: ..... - 3 -
2. Features: ..... - 3 -
3. Application: ..... - 3 -
4. Specifications: ..... - 3 -
5. Working mode: ..... - 4 -
6. Pin Definition: ..... - 4 -
7. Dimension: ..... - 4 -
8. Soldering condition: ..... - 5 -

Note: Revision History

Revision	Date	Comment
V1.0	2021-1-21	First release

1. Description:

STP101M is a 3D pedometer module with functional chipset which include a G-sensor and MCU. It has adopted the impulse-type interface, with the 3D MEMS sensor (G sensor) and high precision of 3D pedometer algorithm, it can give a precisely pedometer in any direction. This module has the characteristics of small volume, low power and etc. The simple digital interface ensures it can be easily embedded in various kinds of pedometer functional system.

★Note:The algorithm of our pedometer is adjustable according to customer's requirement. We can provide the pedometer for shoes, table class pedometer and bracelet pedomet er wearing on wrist, pedometer wearing on waist and pedometer putting inside the pocket.

Pls indicate clearly when purchasing.

2. Features:

- High precision 3D pedometer algorithm
- Low sleep current
- Pulse output interface
- Ultra-small size

3. Application:

- 3D pedometer
- Outdoor handheld
- MP3 pedometer
- Healthcare products
- Pedometer shoes

4. Specifications:

Parameters	Condition	Performance			Unit
		Min.	Typ.	Max.	
Working voltage		2.3	3	3.6	v
Working current	@3V		< 25		uA
Sleep current			< 4		uA
Step resolution			1		Step
Pedometer wrror	Uniform Working		± 3%		Step
Working temperature		-10		50	℃
Storage temperature		-10		50	℃

5. Working mode:

Normal work mode

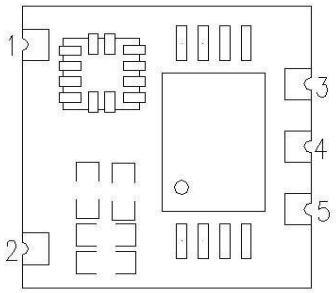
The chipset goes into normal working mode when step motion is detected.

The Step-out pin is in low level usually, it will output one high pulse with one step motion, and the high level of the pulse is around 50ms.

Sleep mode

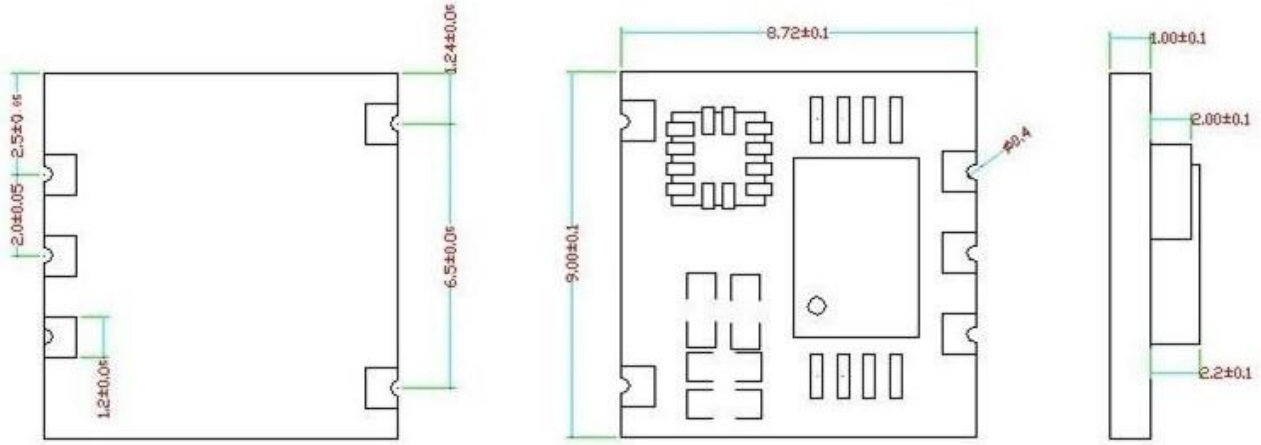
If the module doesn't automatically come to sleep status within 20 seconds, the G sensor doesn't work. the entire pedometer chipset in low power consumption mode, then the current is less than 4uA!

6. Pin Definition:



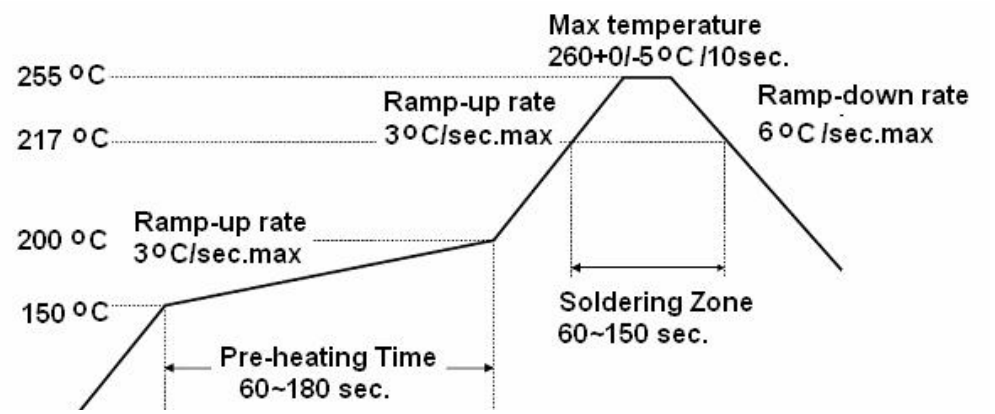
Pin NO.	Pin name	Description
1	GND	Connect ground
2	GND	Connect ground
3	VCC	Connect positive power（2.3-3.6V）
4	GND	Connect ground
5	STEP	Pulse-output pin

7. Dimension:



8. Soldering condition:

1) Soldering temperature curve;



2) Don't reflow more than twice;

3) Don't press the chip when during the soldering;

4) Don't bent circuit board after the soldering.