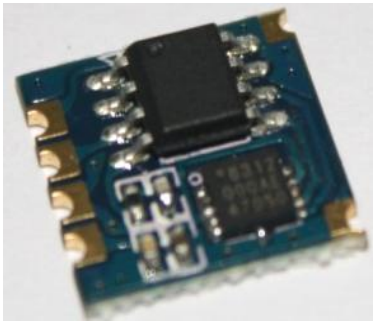
Embedded 3D Pedometer Module STP156

Description

This 3D pedometer module adopts the 3DMEMS sensor (G sensor) and high precision of 3D pedometer algorithm, which made it can give a precisely pedometer in any direction. This module has the characteristics of small size and low power consumption. With a simple digital interface, it can be easily used to 3D pedometer, USB multifunctional pedometer, card pedometer and various kinds of system with embedded pedometer function.



Feature

- High precision 3D pedometer algorithm
- Small size
- Low sleep current
- Simple interface

Application

- 3D Pedometer
- MP3 Pedometer
- Outdoor handheld devices
- Sports watch
- Healthy products

Electrical Specifications

Parameter	Condition	Performance			Unit
		MIN	TYP	MAX	
Working voltage		2.5	3	3.3	v
Working current	@3V		170		uA
Sleep current			< 3		uA
Pedometer resolution			1		step
Pedometer error	Uniform working		±3%		step
Working temperature		-40		85	℃
Storage temperature		-40		85	℃

Working mode:

1) Normal work

When CS control pin connect to high level, pedometer module is in normal working condition.

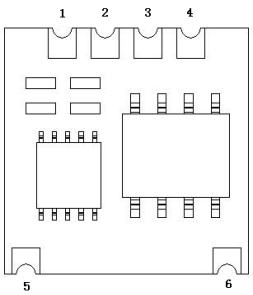
When STEP pin connect to low level, in normal working state, each step you walk, the STEP pin will output a pulse, high level of the pulse signal is(about 50 ms.

2) Standby dormancy

When CS control pin connect to low level, pedometer module is in standby dormancy.

When module is in sleep state, the G sensor doesn't work, then the whole module is in a state of low power consumption.

Pinout:



Pin number	Pin name	function
1	VCC	positive power supply
2	GND	Ground
3	STEP	Step pulse output
4	CS	Module choice（effective in high level）
5	GND	Ground
6	GND	Ground

Machine Dimension: