

Digital Output Type 3-axis Acceleration Sensor

HAAM-375

Functional interrupt output function reduces your burden of developing application software !!

Features

·Output various interrupt signals by preset threshold (Screen info, Wakeup, Drop detection)

- -8-bit digital acceleration signal output
- ·Serial Interface available (I2C)
- ·Low Voltage Drive (2.4V~), Interface block can be driven by as low as 1.7V

•Low Power Consumption Standby mode: $(3 \mu A Max.)$

Normal mode:100 μ A Max. (when DR=10ms selected)

·Various calibrations are done by built-in EEPROM



Additional function

Item	Function					
Data rate change function	This function is to change data rate(DR) by register setting					
	Settable data rate: 10,80,160,320mS					
Moving average measure function	This function is to output result which averaged measure value by designated number of times. (4, 8, 16 times) When moving average is selected, internal sampling cycle becomes 5mS and data rate will be determined by 5mS×average number of times.					

Outline Dimensions



Block Diagram





Terminal Assignment & Functions

No	Terminal	Function				
1	RST	Reset signal input (Lo: Reset / Hi: Normal operation)				
2						
3	OND	Power ground				
4	GND					
5						
6	INT1	Interrupt 1 signal output				
7	INT2	Interrupt 2 signal output				
8	INT3	Interrupt 3 signal output				
9	SCL	I2C Serial data clock input				
10	SDA	I2C Serial data input/output				
11	Reserved	Please connect to GND.				
12	SAD0	I2C Slave address LSB setting				
		This terminal has pull-up resistor (300k Ω Typ.) against VDD_IO built in.				
		When Open processed, slave address LSB becomes Hi.				
13	VDD	Power supply input to drive sensor				
14 VDD_IO Power supply input to drive serial interface. If its voltage differs from sensor drive power supply, please short-circuit to VDD terr						

Standard Specification

Ta=25°C, Vcc=2.5V

HAAM-375

ltem			Rating		Lloit	Pomark			
			Min.	Тур.	Max.	Unit	Remark		
Operating Condition									
Temperature Range	Storage Temperature Range		-40		85	°C			
Temperature Mange	Operating Temperature Range		-25		75	°C			
	Operating Voltage Range		2.4	2.5	3.6	V	VDD		
	Interface Voltage Range		1.7		VDD	V			
	Current Consumption	DR=10ms		50	100	μA			
Power Supply		DR=80ms		10	20	μA	When normal mode selected		
		DR=160ms		8	15	μA	Able to change by register setting		
		DR=320ms		6.5	10	μA	- 		
	Standby Current			1	3	μA	When standby mode selected		
					1	me	Transition time from Standby to Normal mode		
	I din on hine			I		1113	(When NO moving average selected)		
Shock Durability						G			
Electrical Characteristics									
Rated Acceleration				±2		G			
Output Resolution		+2G		15.6		mg/LSB	8bit output		
			58	64	70	LSB/G	When normal mode selected		
Sampling Frequency				2.5, 6.25,	3.125	Hz	Able to change by register setting		
Serial Interface Specification									
I2C Interface Speed					400	kHz			