GYRO SENSOR (Digital Output)

XV7011BB

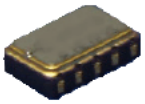
Product number
XV7011BB: X2A000271xxxx00

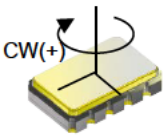
- SPI or I²C serial interface
- Angular rate output (16/24bit)
- Excellent bias stability over temperature
- Operating temperature range -20 °C to +80 °C
  (Option: -40 °C to +85 °C)
- Built-in temperature sensor
- Built-in selectable digital filter
- Low power consumption

Recommended Application

- Anti vibration and attitude control for industrial applications etc.
- Motion detection for man machine interface

*The I2C-Bus is a trademark of NXP Semiconductors





Specifications (characteristics)

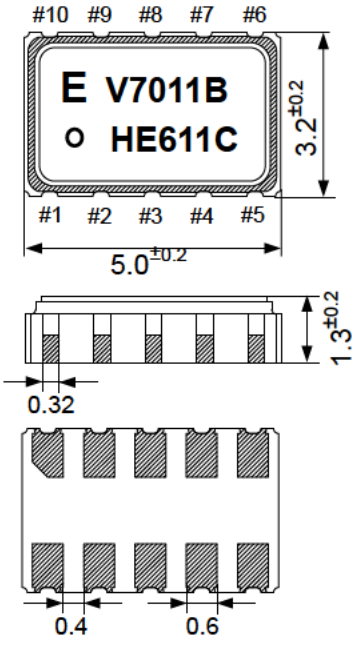
Item		Symbol	Specifications	Conditions / Remarks
Supply Voltage		VDDM	2.7 to 3.6 V	
Supply Voltage for interface		VDDI	1.65 V to 3.60 V	
Temperature range	Storage Temperature	TSTG	-40 C to +85 C	
	Operating Temperature	TOPR	-20 C to +80 C	Option:-40 C to +85 C
Scale factor		So	280 LSB/(°/s) ±5 %	16bit, Ta=+25 C
			71680 LSB/(°/s) ±5 %	24bit, Ta=+25 C
Bias		ZRL	±1 °/s (0 LSB Typ.)	Ta=+25 C
Bias over temperature		ZRLt	±1 °/s	Variation from Ta = +25 °C
Rate range		I	±100 °/s	
Non linearity		NI	±0.5 %FS	Ta=+25 C
Cross axes		CS	±5 %	Ta=+25 C
Current consumption		Iop1	0.9 mA Typ.	Not communicating
Stand-by current		Iop2	160 µA Typ.	
Sleep current		Iop3	3 µA Typ.	
Noise		Nd	0.003 (°/s)/√Hz	at 10Hz

Product Name (Standard form)

XV701 1 B B * *
① ②③④ ⑤ ⑥

①Model ②Detection axis (1:Z-axis) ③Package type(B: Ceramic 5032size)
④Output (B: SPI/I²C) ⑤Frequency ⑥Custom recognition(not necessary to specify)

External Dimensions (Unit:mm)



Pin map

Pin	Connection XV7011BB
1	MOSI/SDA
2	SS
3	VDDL
4	Reserved1
5	GND
6	VDDM
7	Reserved2
8	VDDI
9	MISO/SA0
10	SCLK/SCL

Connect "Reserved1" pin to GND.
Do not connect "Reserved2" pin externally.

Footprint (Recommended) (Unit:mm)