

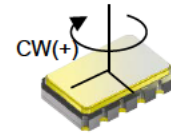
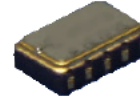


## GYRO SENSOR (Digital Output)

## XV7021BB

Product number  
XV7021BB: X2A000311xxxx00

- SPI or I<sup>2</sup>C 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 and detuning frequency eliminate filter
  - Low power consumption
- Recommended Application**
- Anti vibration and attitude control for industrial applications etc.
  - Motion detection for man machine interface

The I<sup>2</sup>C-Bus is a trademark of NXP Semiconductors

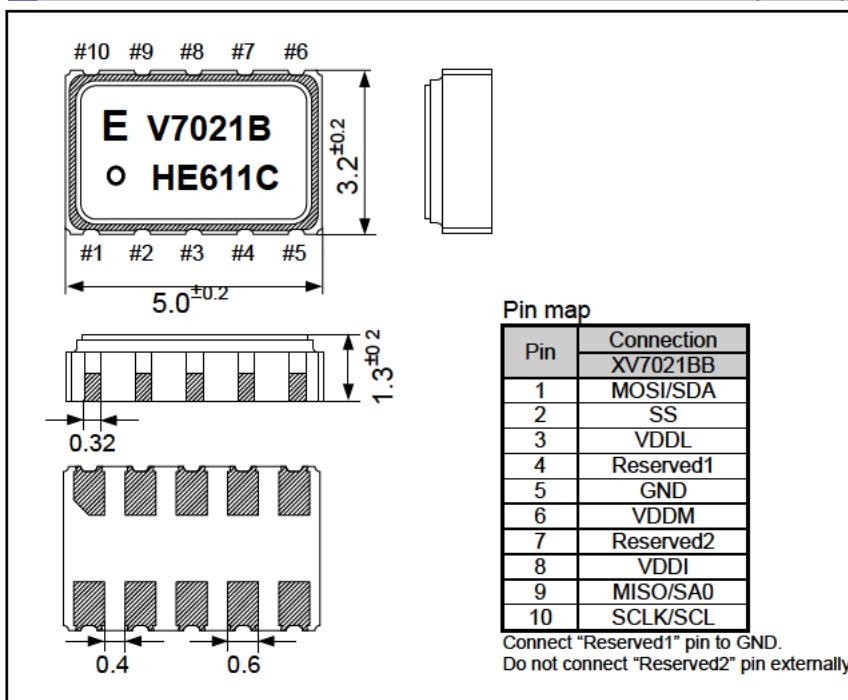
## Specifications (characteristics)

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	70 LSB/(°/s) ±5 %	16bit, Ta=+25 °C
		17920 LSB/(°/s) ±5 %	24bit, Ta=+25 °C
Bias	ZRL	±1 %/s (0 LSB Typ.)	Ta=+25 °C
Bias over temperature A	ZRL <sub>ta</sub>	±0.25 %/s	Variation from Ta = +25 °C -10 °C to +50 °C
Bias over temperature B	ZRL <sub>tb</sub>	±1 %/s	Variation from Ta = +25 °C -20 °C to +80 °C
Rate range	I	±400 °/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	0.0015 (°/s)/√Hz	at 10Hz

Product Name  
(Standard form)XV7021BB \* \*  
① ②③④ ⑤ ⑥① Model ② Detection axis (1:Z-axis) ③ Package type(B: Ceramic 5032size)  
④ Output (B: SPI/I<sup>2</sup>C) ⑤ Frequency ⑥ Custom recognition(not necessary to specify)

## External Dimensions

(Unit:mm)



## Footprint (Recommended)

(Unit:mm)

