



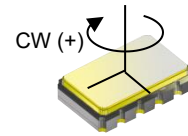
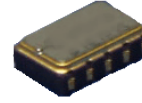
GYRO SENSOR (Digital Output)

XV7081BB



Product number
XV7081BB: X2A000351xxxx00

- Excellent bias temperature coefficient 0.0024 (°/s)/°C Typ.
- Low angle random walk 0.065 °/√h Typ.
- SPI or I²C serial interface
- Integrated user-selectable digital filter
- Angular rate output (16 bits or 24 bits resolution)
- Operating temperature -20 °C to +80 °C
- Embedded temperature sensor
- Low current consumption 900 μA Typ.



Recommended Application

- Anti-vibration, attitude control for industrial applications.
- Autonomous machines

*The I²C-Bus is a trademark of NXP Semiconductors

Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Supply voltage	V _{DDM}	2.7 V to 3.6 V	
Supply voltage for interface	V _{DDI}	1.65 V to 3.6 V	
Storage temperature	T _{STG}	-40 °C to +85 °C	
Operating temperature	T _{OPR}	-20 °C to +80 °C	
Scale factor	S _o	70 LSB/(°/s) ±2 %	16 bits, T _a = +25 °C
		17920 LSB/(°/s) ±2 %	24 bits, T _a = +25 °C
Scale factor variation over temperature	S _p	±3.0 %	V _{DDM} = 3 V, T _a = +25 °C reference
Bias	ZRL	±1 °/s (0 LSB Typ.)	T _a = +25 °C
Bias variation over temperature	ZRL _t	±3.0 °/s	V _{DDM} = 3 V, T _a = +25 °C reference
Bias temperature coefficient	ZRL _s	0.0024 (°/s)/°C Typ.	V _{DDM} = 3 V, Average of absolute value, ΔT = 1 °C.
Rate range	I	±400 °/s	
Non-linearity	NI	±0.5 %FS	T _a = +25 °C
Cross-axis sensitivity	CS	±5 %	T _a = +25 °C
Current consumption	I _{op1}	900 μA Typ.	
Stand-by current	I _{op2}	160 μA Typ.	
Sleep current	I _{op3}	3 μA Typ.	
Noise density	N _d	0.0015 (°/s)/√Hz	@ 10Hz, LPF default setting
Angle random walk	N	0.065 °/√h	

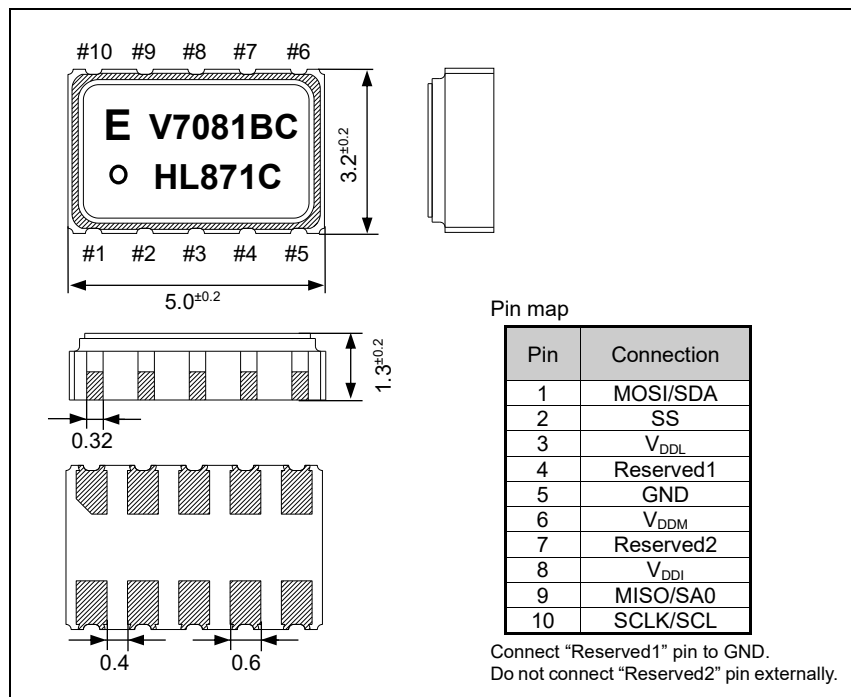
Product Name
(Standard form)

XV7081B * *
① ②③④ ⑤ ⑥

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

External Dimensions

(Unit: mm)



Footprint (Recommended)

(Unit: mm)

