

最大±32gの検出範囲 衝撃検知に最適な小型加速度センサ

±32g Detection Range Ideal for Impact Detection



3軸デジタル加速度センサ

Tri-Axis Digital Accelerometer

KX222, KX224

Features

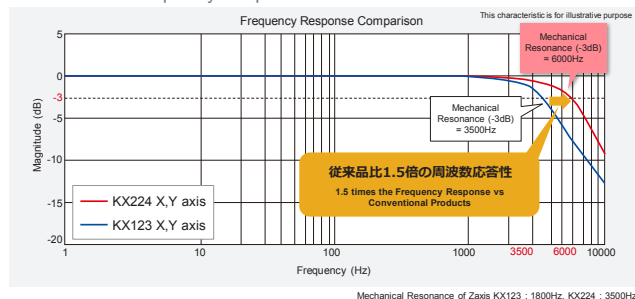
- 小型加速度センサで最大32gまで対応
Full scale output up to $\pm 32g$ with small accelerometer
- 最大6kHzの周波数応答性を実現
6kHz (Max.) frequency response
- 出力データレート最大25.6kHz
25.6kHz (Max.) output data rate

Applications

- 衝撃検知
Shock detection
- スポーツ/フィットネス
Sports and Fitness
- マシンヘルスマニタリング
Machine health monitoring

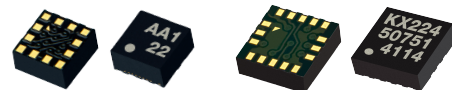
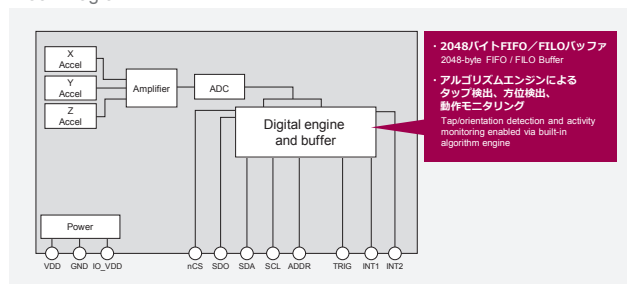
従来品と比べ1.5倍の周波数応答性

1.5 Times the Frequency Response vs Conventional Products



ブロック図

Block Diagram



2 × 2 × 0.9mm (LGA)

3 × 3 × 0.9mm (LGA)

仕様

Specifications

Parameter	Unit	KX222-1054 / KX224-1053	Conditions
Range	g	$\pm 8, \pm 16, \pm 32$	User-selectable full-scale output range
Sensitivity	counts / g	4096, 2048, 1024	16-bit
		16, 8, 4	8-bit
0g Offset vs. Temp	mg / °C	0.2	-40°C to +85°C
Sensitivity vs. Temp	% / °C	0.01	-40°C to +85°C
Mechanical Resonance	Hz	6000 (xy), 3600 (z)	-3dB
Output Data Rate (ODR)	Hz	0.781 to 25600 (Default: 50)	Wide Frequency Response
Non-Linearity	% of FS	0.6	% of full scale output
Cross-Axis Sensitivity	%	2.0	High Output Data Rate
Noise	$\mu g/\sqrt{Hz}$	450 (xy), 700 (z)	Low pass filter = ODR/9
I ² C Communication Rate	MHz	3.4 Max.	
SPI Communication Rate	MHz	10 Max.	
Power Supply	V	1.71 – 3.6	
Current Consumption	μA	145	High resolution (RES = 1)
		10	Low power (RES = 0)
		0.9	Standby