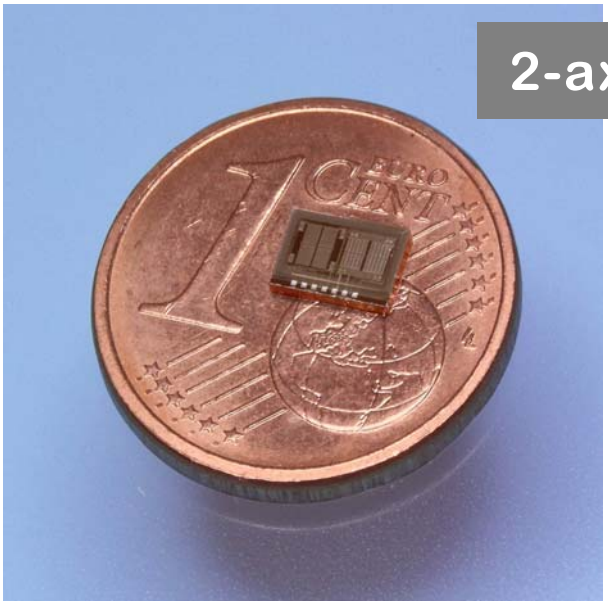
AIM5I

2-axis Acceleration sensor



Features and benefits

- Single crystal silicon based
- 2-axis acceleration measurement (x and y)
- Ultra low cross axis sensitivity due to HARMS technology
- Over damped frequency response
- Low noise
- Excellent stability over temperature
- Excellent reliability against overload

PERFORMANCE DATA (capacitive sensor element)

Parameter[1)]	Conditions	Min.	Typ.[2)]	Max.	Units
Measurement range			± 1		g
Sensitivity	full scale	700	750	800	fF/g
Sensitivity[3)] temperature error	-25…70°C without calibration		0.006	0.012	%/K
Zero-g Offset[3)] temperature error	-25…70°C without calibration		± 0.12	± 0.20	fF/K
Capacitance C_0		2750	2880	3000	fF
Total Capacitance	Parasitic Capacitance		13.0		pF
Cross axis sensitivity	x/y- versus z-direction		700:1		
Nonlinearity[3)]	full scale without calibration	0.81	1.35	1.85	%
Frequency response -3 dB		90	100	110	Hz
Recommended max. measuring voltage	RMS		1.0		V
Noise density	Calculated	5.8	6.1	6.4	µg/√Hz
Shock survival	Bare chip	2000			g
Dimensions	L x W x H		4.86 x 3.39 x 0.73		mm

1) Unless stated otherwise the performance data are for room temperature.

2) Typical specifications are not guaranteed.

3) Measured in combination with ASIC M777.04 (ELMOS Semiconductor).