imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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High Performance MEMS Accelerometer

AX0®215



KEY FEATURES

- → In-plane linear accelerometer
- → Superior non-linearity of 200 ppm over 15 g range thanks to the closed-loop operation
- → Excellent bias instability of 3 µg
- → 24 bit output with digital SPI interface
- → Low noise
- → Embedded temperature sensor for on-chip or external temperature compensation
- → Built-in self-test

- → 12 x 12 mm hermetic J-Lead ceramic package
- → Weight: 1.4 grams
- → Full compatibility with GYPR0[®] Products

tronics

→ REACH and RoHS compliant

GENERAL DESCRIPTION

AXO[®]215 product is ideally complementing the industry-standard GYPRO[®] Product Line. AXO[®]215 consists in a MEMS transducer and an integrated circuit (IC) packaged in a 28-pin J-lead Ceramic Package. The MEMS transducer is manufactured using Tronics' wafer-level packaging technology based on micromachined thick single crystal silicon.

When the sensor is subjected to a linear acceleration, the acceleration acts on the proof-mass which is itself counterbalanced by electrostatic forces (closed-loop operation). The sensor is factory calibrated and compensated for temperature effects to provide high-accuracy digital output over a broad temperature range. Raw data output can be also chosen to enable customer-made compensations.



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AXO[®]215 High Performance MEMS Accelerometer





PERFORMANCE

Parameter	AX0 [®] 215	Unit
Input range	± 15	g
Non linearity	200 (<500)	ppm
Temperature range	-40 85	°C
Short term bias stability	10	μg
Bias instability	3	μg
Bias temperature variations	<± 5	mg
Scale factor temperature variations	<± 1500	ppm
Noise density	15	µg/√Hz
Axis misalignment	<20	mrad
Bandwidth	>300	Hz
Data rate	1700	Hz
Latency	<1	ms
Vibration rectification	<100	µg/g²
Operating vibration	8	g rms
Survival shock	2000/0.3	g/ms
Power supply	5	V
Current consumption	25	mA

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