Digital Output (SPI) Accelerometers

PRODUCT DESCRIPTION:

MEMS based Capacitive Accelerometer measures acceleration along a single axis. MEMS die changes it's capacitance when acceleration is applied. Signal conditioner IC converts change in capacitance into 24-bit digital output. Digital output is provided in the range of 800000 to 7FFFFF for – FSR to + FSR. Both MEMS die and CMOS signal conditioner IC are hermetically packaged in a single 44 pin MCM CLCC package.

Option of uncommitted Pt based temperature sensor (PRT) within same package.

Each sensor is calibrated. Sensor comes with calibration coefficients.

FEATURES:

- Full Scale Ranges : 2g, 5g, 10g, 30g, 50g
- Supply Voltage: 3.0V to 3.6V.
- 24-Bit Signed Digital Output
- SPI Compatible Serial Interface
- On Chip CMOS Temperature Sensor
- Offset & Gain Calibration
- Temperature Range : -40°C to125°C
- Transducer Package : 44-Pin CLCC
- Custom Package Option Available
- Package Size : 16 mm x 16 mm x 2.8 mm

S.No.	Parameters	Specification
Product Specification		
1	Full Scale Ranges	±2g, ±5g, ±10g, ±30g, ±50g
2	Supply Voltage	3.0V to 3.6V
3	Typical Supply Current	<5 mA
4	Sensor Output	24-Bit Signed Digital Output
5	Interface	SPI Compatible
6	Effective Resolution	18 Bits
7	Bias Stability	<0.1% FSO
8	Bias TC	<0.1% FSO/°C
9	Sensitivity TC	<0.015% FSO /°C
10	Frequency Bandwidth	up to 2000Hz
11	Temperature Range	-40°C to 125°C
12	Resolution	<0.1% FSO
13	Linearity	<0.1% FSO