MEMS Based Accelerometer (Digital Output, SPI)
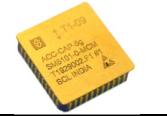
PRODUCT DESCRIPTION:

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 transducer package.

Each transducer is calibrated. Transducer comes with calibration coefficients.

FEATURES:

- Full Scale Ranges : ±5g, ±10g, ±25g, ±50g, ±100g
- 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

Product Specification		
S.No.	Parameters	Specification
1	Full Scale Ranges	±5g, ±10g, ±25g, ±50g, ±100g
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	<10 mV
8	Bias Stability	<0.1% FSO
9	Bias TC	<0.1% FSO/°C
10	Sensitivity TC	<0.015% FSO /°C
11	Frequency Bandwidth	up to 2000Hz
12	Temperature Range	-40°C to 125°C
13	Resolution	<0.1% FSO
14	Linearity	<0.1% FSO