

Accelerometer Dual 120g 3.3V Automotive 8-Pin SOIC N T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [STMicroelectronics, Inc](#)

Package/Case: SOP8

Product Type: Sensors, Transducers

Lifecycle: NRND

General Description

The AIS1120SX / AIS2120SX is a central acceleration sensor with a single or dual-axis sensing element and an IC interface able to provide acceleration information to a master control unit via an SPI protocol.

The sensing element, capable of detecting the acceleration, is manufactured using a dedicated process developed by ST to produce inertial sensors and actuators in silicon.

The IC interface is manufactured using a BCD process that allows a high level of integration. The device is factory trimmed to better tune the characteristics of the sensing element with the acceleration information to be supplied.

The AIS1120SX / AIS2120SX has a full scale of ± 120 g. The acquisition chain consists of a C/V converter, a full-differential charge amplifier, a 2nd order SD analog-to-digital converter and a digital core, which includes filtering, compensation and interpolation, control logic and SPI protocol generation.

The differential capacitance of the sensor is proportional to the proof mass displacement; thus, by sensing the differential capacitance, the position of the sensor is determined. Then, since the mass position is known, and the position is related to the input acceleration, the input acceleration can be easily deduced.

The device is available in a plastic SOIC8 package and is guaranteed to operate over a temperature range extending from -40 °C to $+105$ °C.

Key Features

AEC-Q100 qualified

3.3 V single supply operation

14-bit data output

Slow and fast offset cancellation

Embedded self-test

Selectable low-pass filter

SPI interface

Extended temperature range -40 °C to $+105$ °C

ECOPACK compliant

Recommended For You

AIS328DQTR

STMicroelectronics, Inc

QFN24

AIS3624DQTR

STMicroelectronics, Inc

QFN-24

AIS2IHTR

STMicroelectronics, Inc

SMD

AIS2DW12TR

STMicroelectronics, Inc

LGA12

AIS1200PSTR

STMicroelectronics, Inc

SOP16

ASMB30LHHTR

STMicroelectronics, Inc

LGA14

ASMB30LHHXTR

STMicroelectronics, Inc

N

A3G4250D

STMicroelectronics, Inc

LGA16

A3G4250DTR

STMicroelectronics, Inc

LGA16