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SMI240 | Inertial sensor with ASIL B for semi-autonomous driving

Benefits | Target applications | Technical features | Contact us

For hands-free driving detects changes in the vehicle position

SMI240 is a 6in1 inertial sensor with ASIL B rating. The sensor is capable of measuring all 6 degrees of freedom: yaw/pitch/roll rate and acceleration in x/y/z directions.

Typical applications include L2 semi-autonomous driving, hands-free driving and positioning applications.

Benefits

- **On-board safety controller for monitoring of sensor functions**
- **Eveloped according to ISO26262 for systems with safety targets up to ASIL D**

Target applications

- **L2 semi-autonomous driving**
- **Hands-free driving**
- **Positioning applications**

Technical Features

Type	Combined inertial sensor
Package	LGA, 3.3 x 3.3 mm²
Sensing axes	X, Y, Z (Ω), X, Y, Z (a)
Range	±300 °/s (Ω) ±16 g (a)
Interface	SPI (out-of-frame)
Data resolution	16-bit (SPI)
Sensitivity	100 LSB/°/s 2,000 LSB/g
Sensitivity tolerance	±3 % (Ω) ±3 % (a)
Total offset error	5 °/s
Supply voltage	3.3 V
Supply current	< 5 mA
Operating temperature	-40 to 105 °C

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