

MLX92223

2-WIRE SENSOR

SEAT MOTOR  
POSITION SENSOR



The hammerhead shark is able to detect electronic signals of no more than half a billionth of a volt. The process uses specialized electroreceptors to detect and locate the source of an external electric field in its environment. What better animal to reflect our sensing capacities?

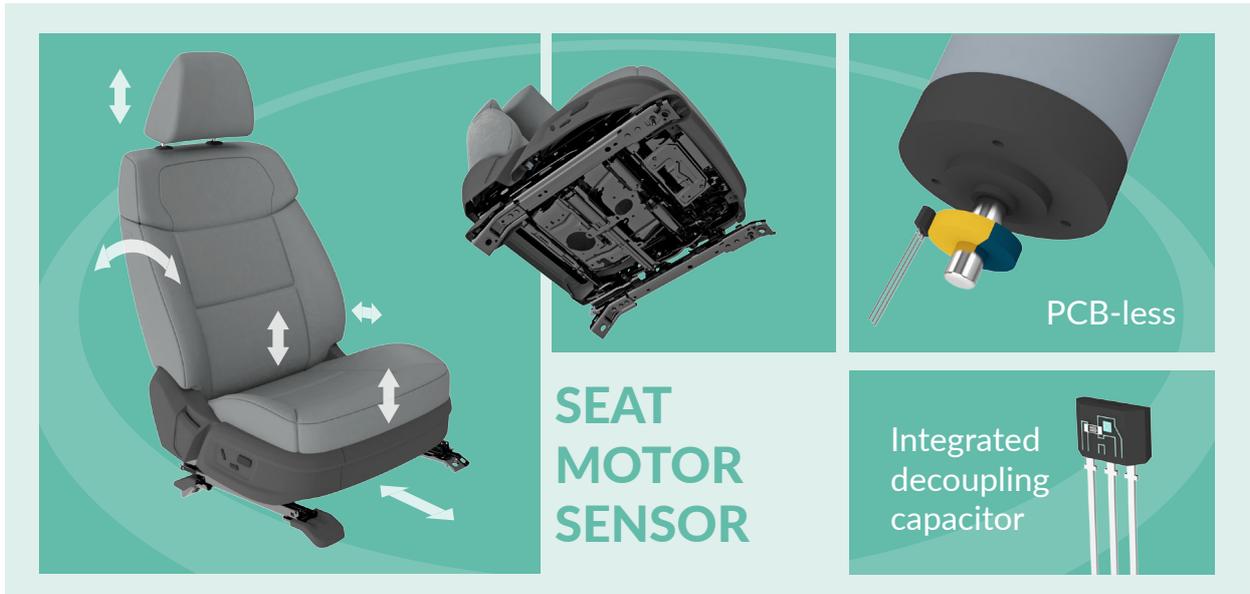
## MELEXIS SOLUTION FOR SEAT MOTOR FEEDBACK

The MLX92223 is a 2-wire sensor designed for seat motor applications. It features an integrated linear current source on-chip to simulate a series resistor of 392  $\Omega$ . In addition to that, the part has an integrated capacitor to accommodate with the latest system level ESD requirements (8 kV) while being PCB-less to ease the installation in the system. Typically this application is considered to be a 3-wire variant with an external series resistor, however, Melexis was able to simulate the external resistor in the silicon to ease the system integration.

### KEY FEATURES

- ✓ Emulates 392  $\Omega$  resistor
- ✓ Wide operating voltage range: from 3.8 V to 16 V
- ✓ Reverse supply voltage protection
- ✓ Advanced thermal management with current limit and thermal protection
- ✓ Integrated decoupling capacitor for PCB-less designs
- ✓ ESD HBM: 8 kV
- ✓ AEC-Q100 qualified
- ✓ System ESD: 8 kV (330  $\Omega$ , 150 pf)

## APPLICATION VISUAL



## BLOCK DIAGRAMS

