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AEK-SNS-2TOFM1

Data brief

Predefined gesture detection system based on FlightSense technology sensors



Product summary	
Predefined gesture detection system based on FlightSense technology sensors	AEK-SNS-2TOFM1
32-bit power architecture MCU for automotive general purpose applications - Chorus family	SPC582B60E1MH00Y
AutoDevKit library plugin for SPC5-STUDIO	STSW-AUTODEVKIT
Code generator, quick resource configurator and Eclipse development environment for SPC5 MCUs	SPC5-Studio
Application	Trunk Control System/ Motion Sensing/ Presence Sensing

Features

- CAN bus interface for remote control support
- Serial interface for remote communication support
- Input voltage: 12 V battery bus
- Size: 250 mm x 86 mm
- Included in the AutoDevKit ecosystem

Description

The AEK-SNS-2TOFM1 includes two Time-of-Flight distance-ranging sensors placed at a distance of 23 cm one from the other.

The on-board SPC582B60E1 microcontroller reads the sensor data and detects a predefined hand/foot gesture.

This solution is designed for power liftgate applications, to open/close the trunk with a predefined foot movement.

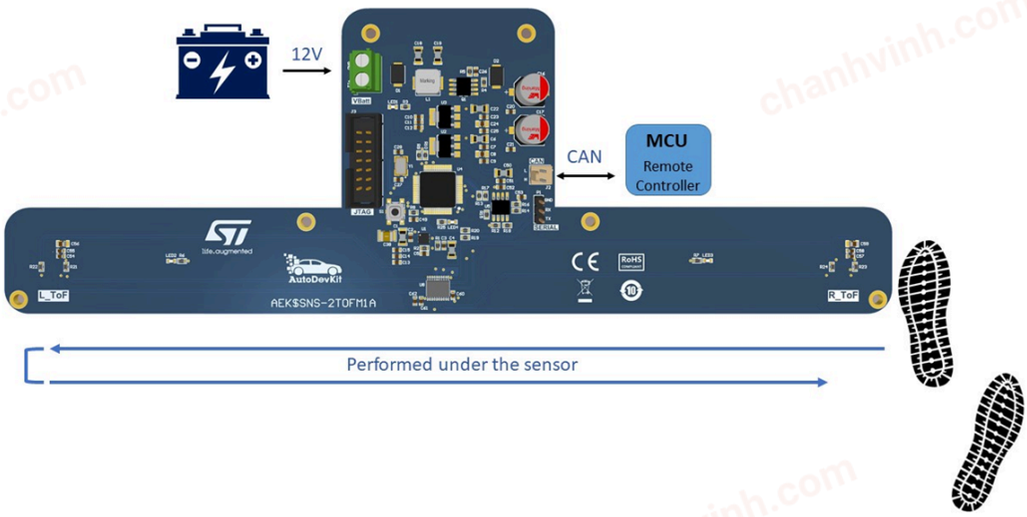
The AEK-SNS-2TOFM1 evaluation board firmware is preloaded. It is enabled for an external CAN bus driving.

The AutoDevKit software library (STSW-AUTODEVKIT) includes a CAN bus-driving example based on the SPC58EC Chorus 4M.

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1 Block diagram

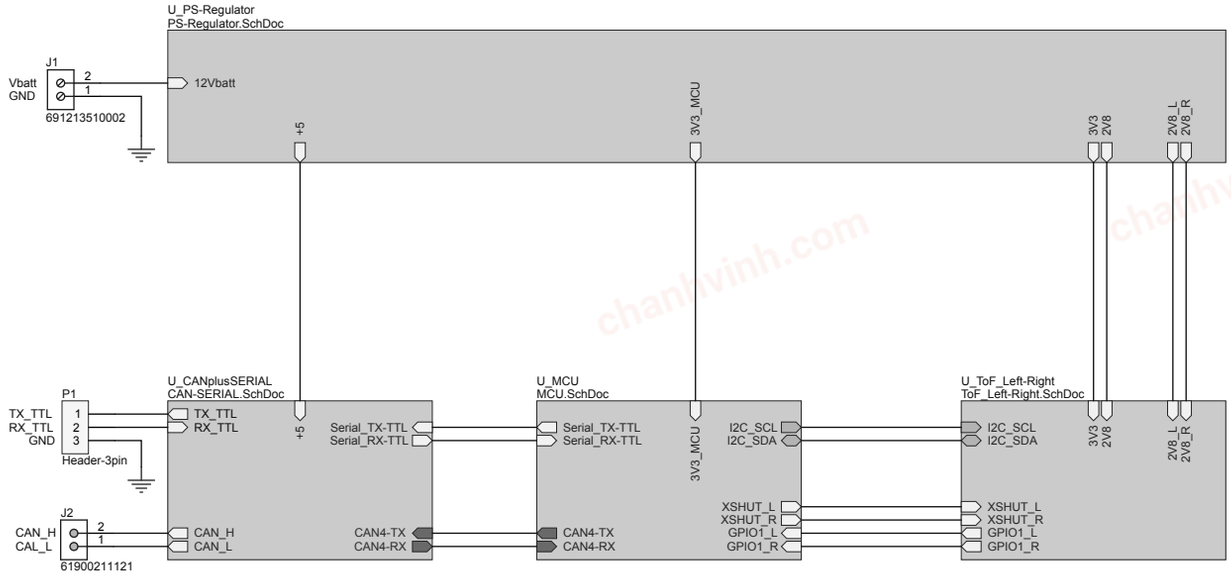
Figure 1. **AEK-SNS-2TOFM1 block diagram**



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2 Schematic diagrams

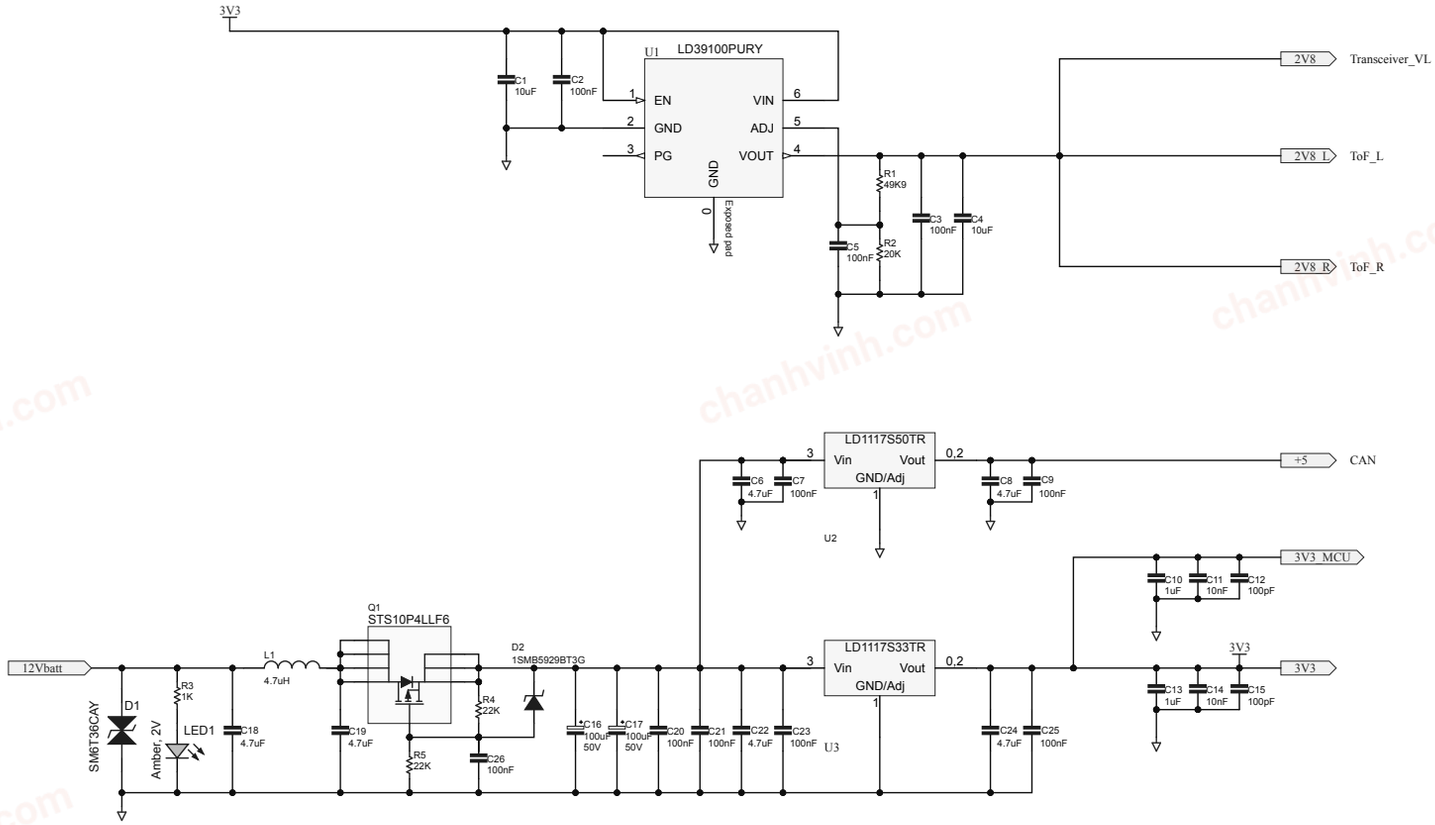
Figure 2. AEK-SNS-2TOFM1 circuit schematic (1 of 5)



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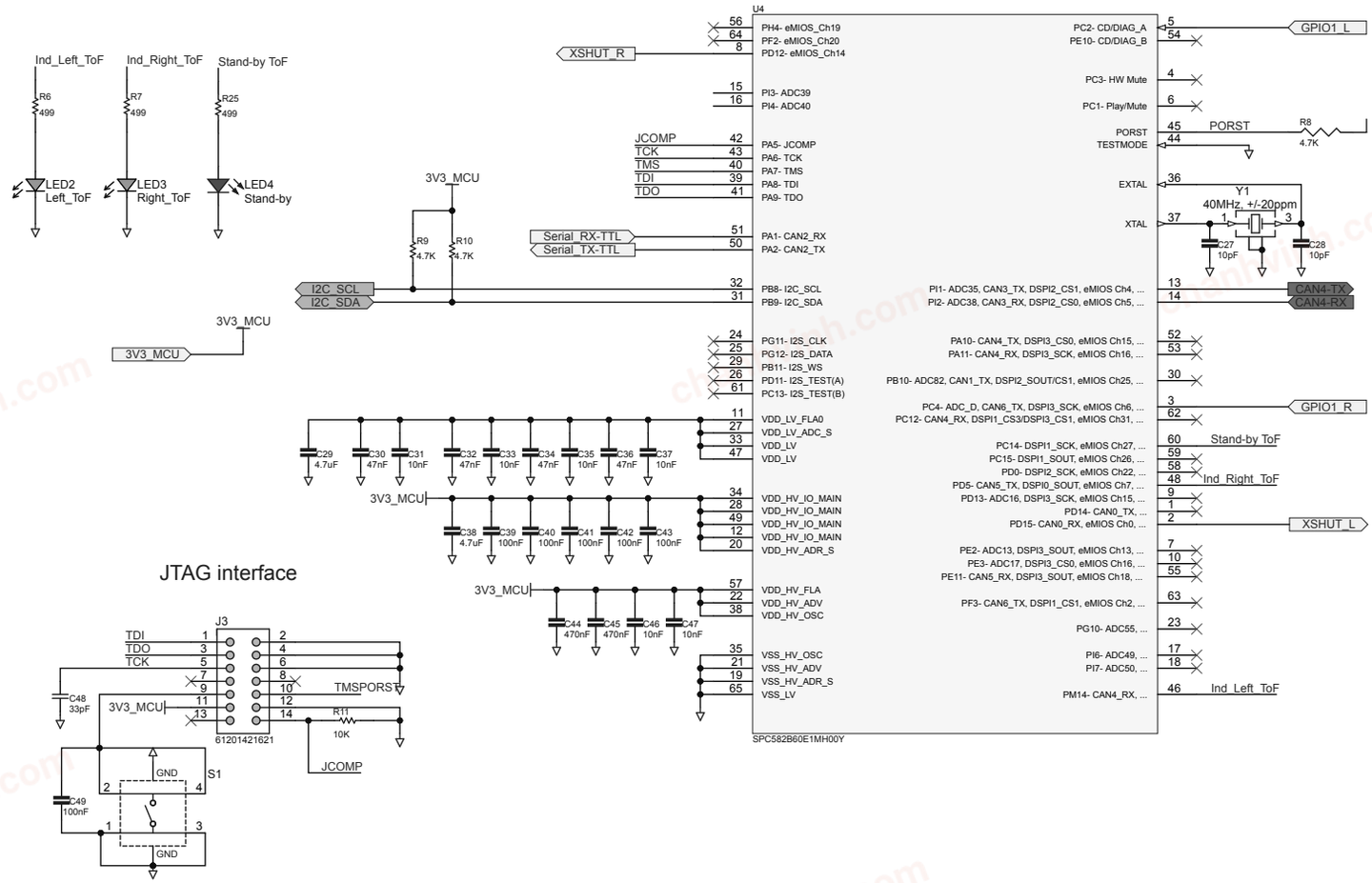
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Figure 3. AEK-SNS-2TOFM1 circuit schematic (2 of 5)



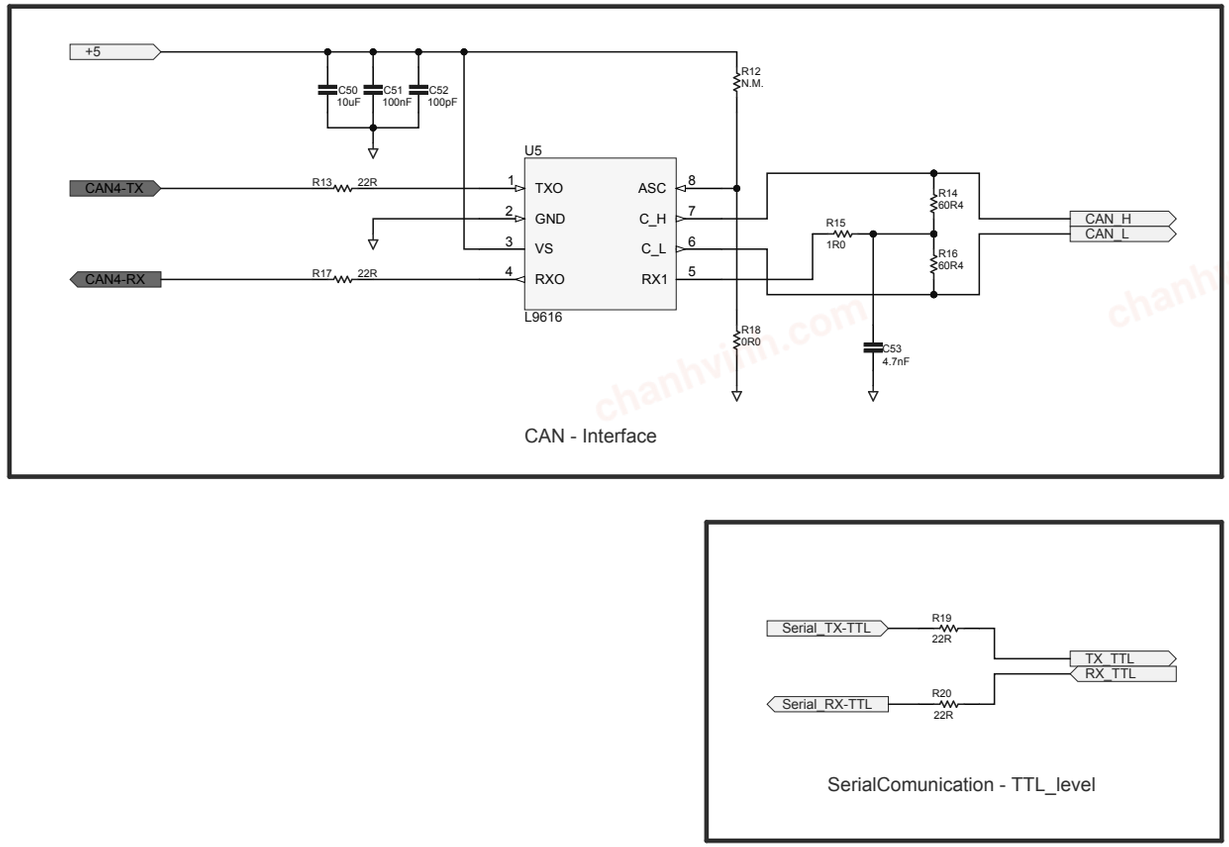
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Figure 4. AEK-SNS-2TOFM1 circuit schematic (3 of 5)



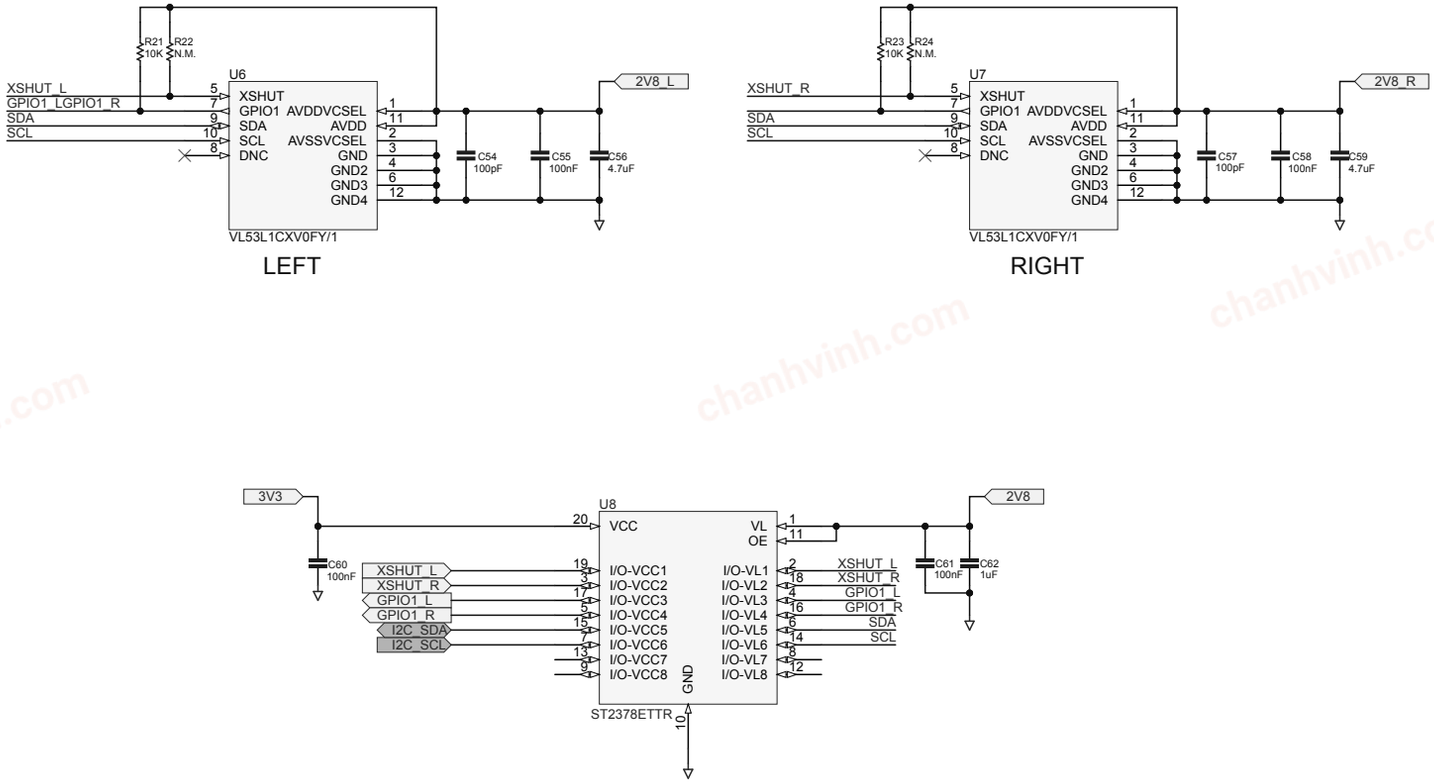
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Figure 5. AEK-SNS-2TOFM1 circuit schematic (4 of 5)



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Figure 6. AEK-SNS-2TOFM1 circuit schematic (5 of 5)



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3 Board versions

Table 1. **AEK-SNS-2TOFM1 versions**

PCB version	Schematic diagrams	Bill of materials
AEK$SNS-2TOFM1A (1)	AEK$SNS-2TOFM1A schematic diagrams	AEK$SNS-2TOFM1A bill of materials

1. *This code identifies the AEK-SNS-2TOFM1 evaluation board first version. It is printed on the board PCB.*

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Revision history

Table 2. **Document revision history**

Date	Revision	Changes
24-May-2022	1	Initial release.

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