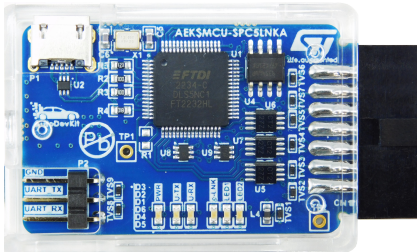


Programmer and debugger for SPC5 automotive microcontrollers



Features

- USB/JTAG debugger dongle for SPC58 (and SPC56 coming within year 2024) automotive MCUs
- USB connector for supply and data communication
- Download your application firmware in SPC5x device FLASH or RAM memory
- Run and debug your application firmware adding breakpoints and watching local and global variables
- Compliant with the IEEE 1149.1 JTAG protocol
- Integrates serial port connection via USB interface (virtual COM)
- Provides NVM programming (erase/program/verify)
- Connectors:
 - 14-pin header connector for JTAG interface
 - 3-pin header connector for UART interface
- Status LEDs to indicate the target IO voltage, connection state, and running state
- Operating temperature range: from 0°C to 50°C
- Included in the [AutoDevKit](#) ecosystem

Description

The [AEK-MCU-SPC5LNK](#) is a debugger/programmer dongle for SPC58 (and SPC56 coming within year 2024) automotive microcontrollers.

It consists of a passive USB-to-JTAG debugger and programmer, which provides a cost-effective, small-size, and fast-prototyping solution for any vehicle applications.

This dongle ensures short development time through easy-to-use hardware and simple software fully integrated into SPC5-Studio and [AutoDevKit Studio](#) IDEs.

The JTAG interface ensures an easy plug to any STMicroelectronics standalone automotive microcontroller and its evaluation boards (compliant with the IEEE 1149.1 JTAG protocol).

The [AEK-MCU-SPC5LNK](#) provides a virtual COM port interface that enables the host PC to communicate with the microcontroller through UART.

Two different types of dongles are available: [AEK-MCU-SPC5LNK](#), to be used with OpenOCD, and [AEK-MCU-SPC5LNKU](#), to be used with UDE PLS.

If you are using [AEK-MCU-SPC5LNK](#), there is no need to install additional software. In case of issues, uninstall and reinstall the drivers as described in UM3303.

If you are using [AEK-MCU-SPC5LNKU](#) and you want to continue using UDE PLS as debugger, there is no need to install additional software. Otherwise, to use OpenOCD, refer to UM3303.

The OpenOCD drivers are freely downloadable at the following link: [STSW-AEK-SPC5LNK](#).

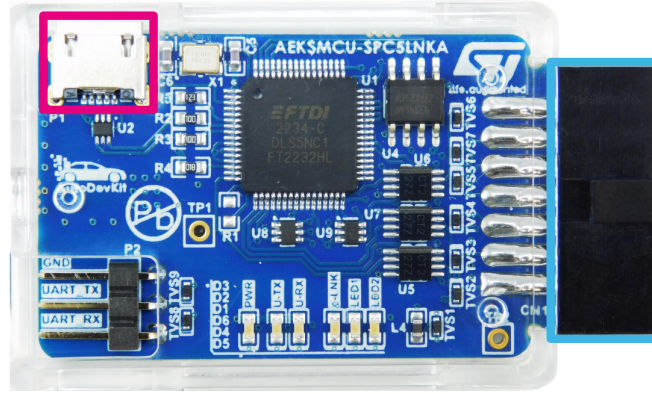
Product summary	
Programmer and debugger for SPC5 automotive microcontrollers	AEK-MCU-SPC5LNK
AVAS solution based on SPC582B60E1 Chorus family MCU and FDA903D Class D audio amplifier	AEK-AUD-C1D9031
MCU discovery board for SPC5 Chorus 4M automotive microcontroller with CAN transceivers	AEK-MCU-C4MLIT1
Specific CAN-controlled brushless motor evaluation board based on SPC560P and L9908	AEK-MOT-3P99081
Specific CAN-controlled brushless motor evaluation board based on SPC560P and L9908 with BLDC motor included	AEK-MOT-3P9908M
Power liftgate controller board based on L99DZ200G multioutput driver and SPC582B60E1 Chorus 1M microcontroller	AEK-MOT-MR200G1

Product summary	
Power liftgate controller board based on L99DZ200G multioutput driver and SPC582B60E1 Chorus 1M microcontroller	AEK-MOT-TK200G1
Predefined gesture detection system based on FlightSense technology sensors	AEK-SNS-2TOFM1
WinUSB drivers for AEK-MCU-SPC5LNK	STSW-AEK-SPC5LNK
Applications	Micro programming tools

1 AEK-MCU-SPC5LNK connectivity

Figure 1. AEK-MCU-SPC5LNK connectivity

**USB 2.1
and virtual COM**



**SPC5
14-pin JTAG**

2 Schematic diagrams

Figure 2. AEK-MCU-SPC5LNK circuit schematic (1 of 3)

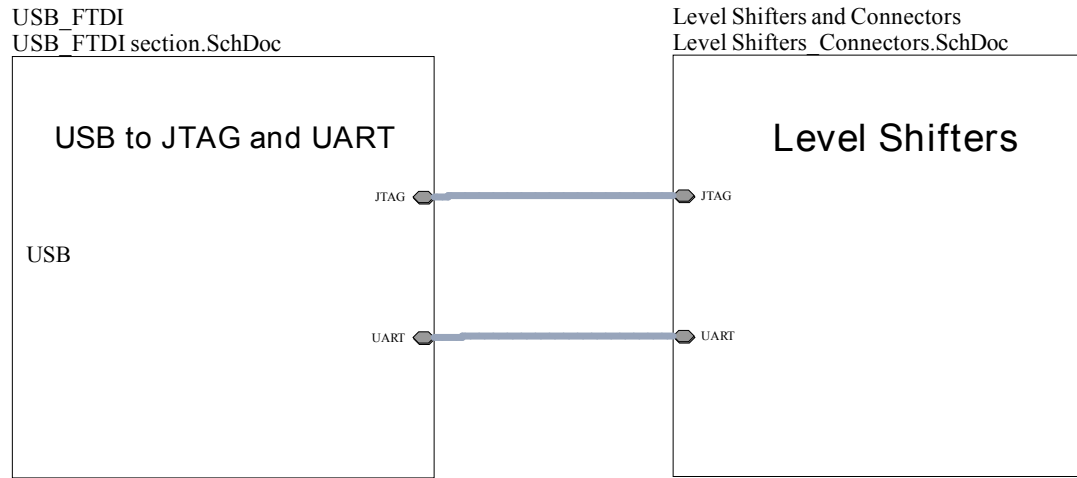


Figure 3. AEK-MCU-SPC5LNK circuit schematic (2 of 3)

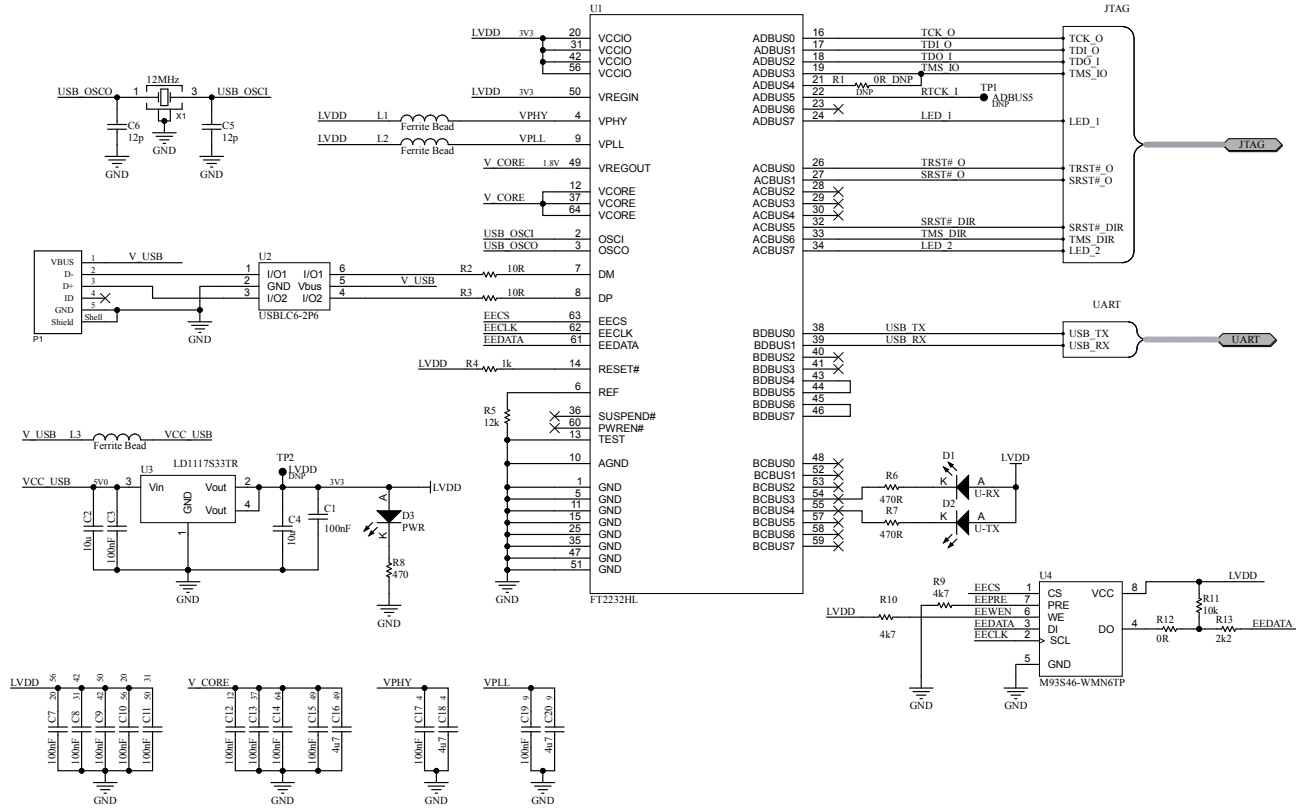
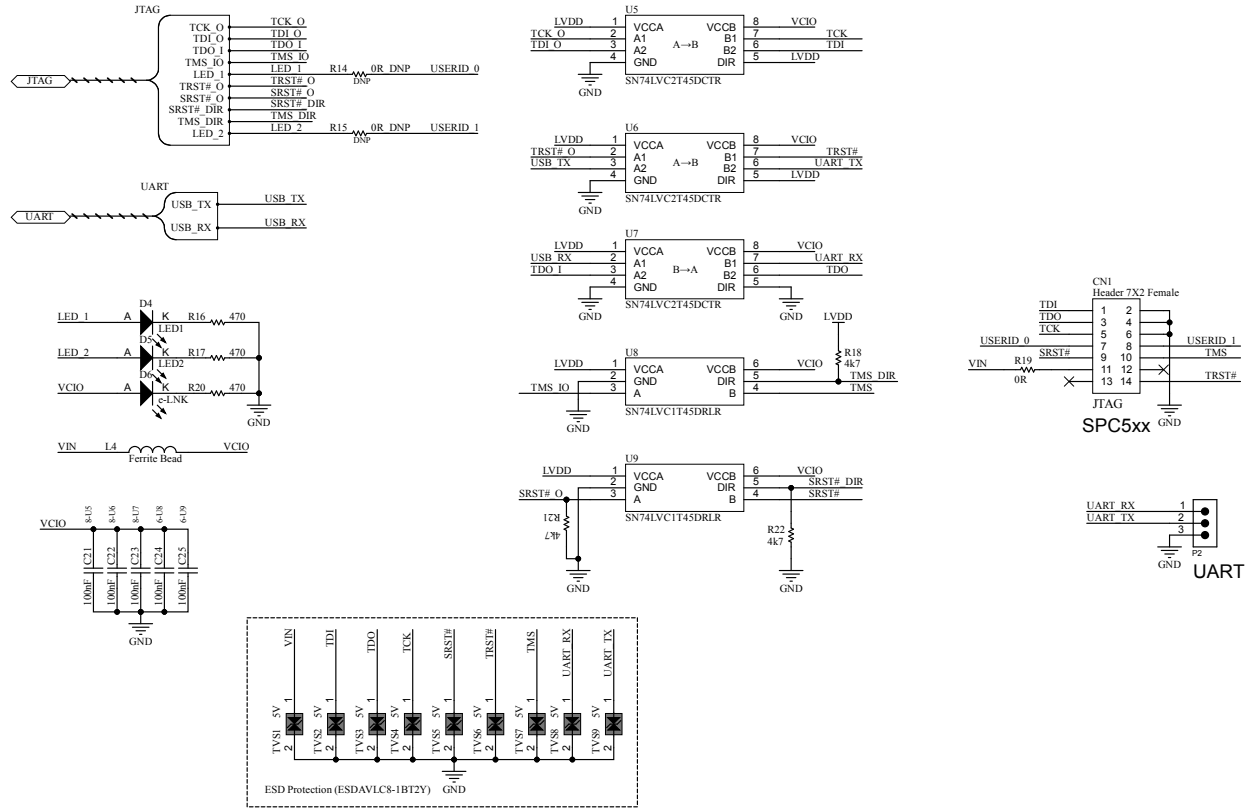


Figure 4. AEK-MCU-SPC5LNK circuit schematic (3 of 3)



3 Order codes

Table 1. Order codes

Order code	Note
AEK-MCU-SPC5LNK	USB/JTAG debugger dongle for SPC5 automotive MCUs compatible with OpenOCD debugger
AEK-MCU-SPC5LNKU	USB/JTAG debugger dongle for SPC5 automotive MCUs compatible with PLS UDE debugger

4 Board versions

Table 2. AEK-MCU-SPC5LNK versions

Finished good	Schematic diagrams	Bill of materials
AEK\$MCU-SPC5LNKA	AEK\$MCU-SPC5LNKA schematic diagrams	AEK\$MCU-SPC5LNKA bill of materials
AEK\$MCU-SPC5LNKU	AEK\$MCU-SPC5LNKU schematic diagrams	AEK\$MCU-SPC5LNKU bill of materials

Revision history

Table 3. Document revision history

Date	Version	Changes
01-Feb-2024	1	Initial release.

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