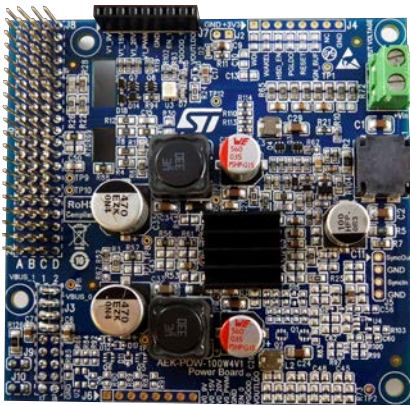


Digitally controlled DC-DC converter up to 5 A based on L5964 and dedicated to automotive and transportation applications



Features

- Up to 100 W power on a single DC-DC channel
- Input voltage range: 6 V to 26 V
- MCU selectable fixed outputs: 3.3 V, 5 V, 9 V, 15 V, 20 V
- Programmable max output current up to 5 A with steps of 50 mA
- Programmable output voltages: 20 mV steps from 3.3 to 11 V
- Short circuit, over-current, thermal protections
- Size 84.7 mm x 81.3 mm
- Included in AutoDevKit initiative
- RoHS compliant



Applications

- USB power delivery up to 100 W
- Baby milk bottle warmer
- Mini-fridge
- Laptop car charger
- In-car mini hair dryer
- In-vehicle power conversions

Description

The **AEK-POW-100W4V1** is a very compact DC-DC converter for automotive and transportation applications which allows regulating the output voltage in two different modes: fixed outputs and PPS (Programmable Power Supply) with 20 mV steps.

The **AEK-POW-100W4V1** allows to set the output current from a min. of 0.05 A to a max. of 5 A for the entire output voltage range with 50 mA steps.

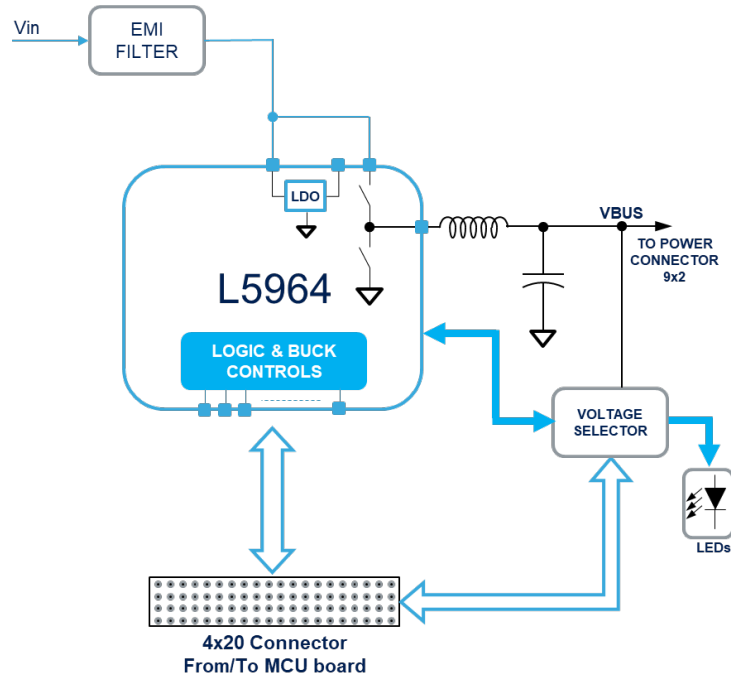
The **AEK-POW-100W4V1** includes several protection systems: short-circuit, overcurrent and thermal protection.

The AutoDevKit software library includes dedicated components able to configure and drive the board from ST microcontrollers.

Product summary	
Digitally controlled DC-DC converter with L5964 up to 5A for automotive applications	AEK-POW-100W4V1
Monolithic dual 3.5 A step-down switching regulator with LDO	L5964
dual-port USB Type-C function board	AEK-USB-2TYPEC1
MCU discovery board for SPC5 Chorus 4M automotive microcontroller with CAN transceivers	AEK-MCU-C4MLIT1
evaluation kit with dual-port USB Type-C function board and SPC58 Chorus discovery board	AEKD-USBTYPEC1
Digitally controlled DC-DC converter with L5964 for automotive applications	AEK-POW-L5964V1
AutoDevKit library plugin for SPC5-STUDIO	STSW-AUTODEVKIT

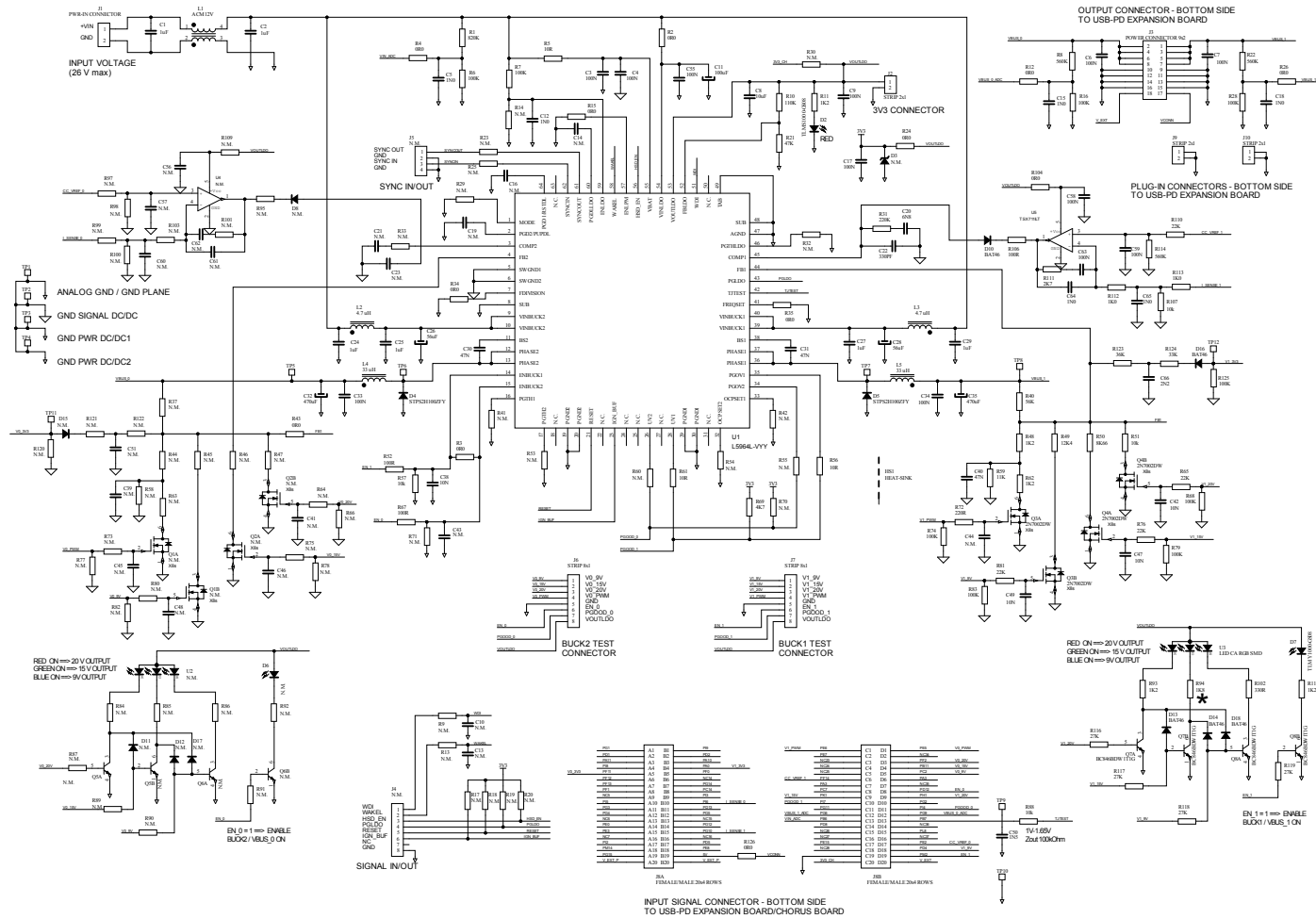
1 Block diagram

Figure 1. AEK-POW-100W4V1 block diagram



2 Schematic diagrams

Figure 2. AEK-POW-100W4V1 board schematics



Revision history

Table 1. Document revision history

Date	Version	Changes
04-Nov-2020	1	Initial release.

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