Overview | Product Details | Design Resources | ⓘ | Training | Support | BUY OPTIONS | GET STARTED (/DOCUMENT/GUIDE/GETTING

Home (/) / Development Boards (/design/development-boards:EVDEBRDSSYS)
/ Analog Toolbox (/design/development-boards/analog-toolbox:ANALOGTOOLBOX) / PCA9460 Evaluation Board

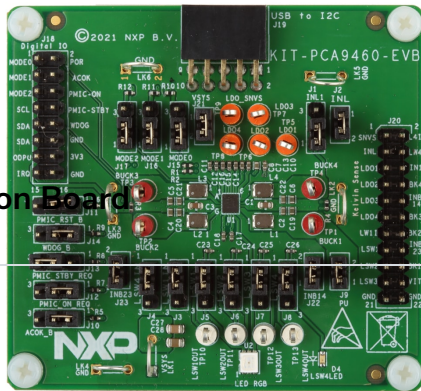# PCA9460 Evaluation Board

KIT-PCA9460-EVB   Receive alerts ⓘ

(//www.nxp.com)   PCA9460 Evaluation Board

Roll over image to zoom in

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The PCA9460 is a general purpose single chip power management IC (PMIC) designed to support different microcontrollers and microprocessors for different applications for the consumer and industrial markets. The PCA9460 is fully compatible with the i.MX 8ULP processor. The PCA9460 provides power supply solutions for low power wearable applications where size and efficiency are critical. The device provides four high-efficiency step-down regulators, four LDOs, one 10 mA SNVS LDO and four load switches with active discharge resistor. This PCA9460-EVK board provides full access to all the features in the PCA9460 device. The evaluation kit comes with a FTDI cable used as a communication interface between I^{2}C and USB to have control of the PMIC's configuration registers using the PCA9460 GUI software.
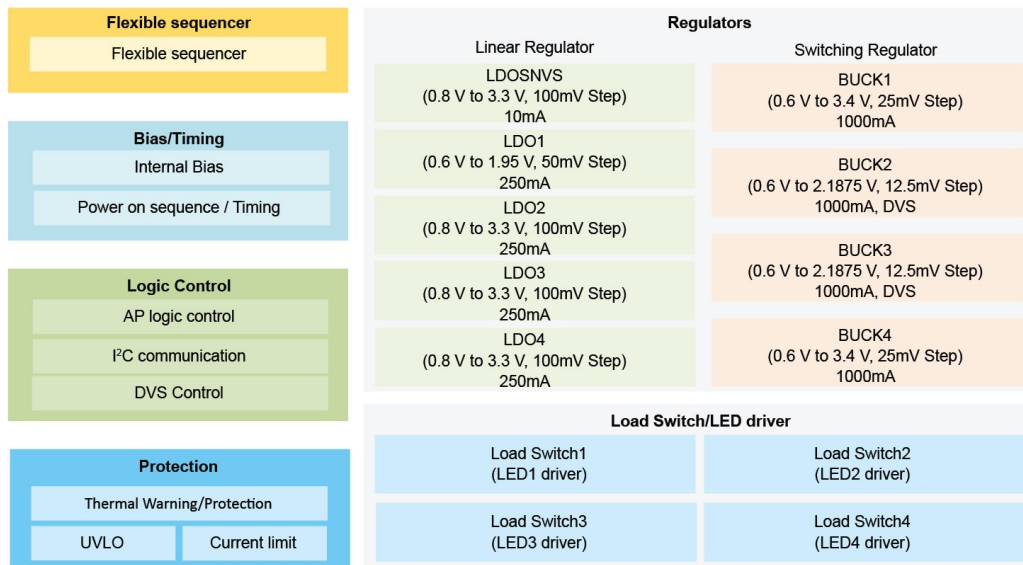
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Product Details

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Block Diagram | Supported Devices | Features | Applications

Block Diagram

PCA9460 Block Diagram

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Flexible sequencer

Flexible sequencer

Bias/Timing

Internal Bias

Power on sequence / Timing

Logic Control

AP logic control

I²C communication

DVS Control

Protection

Thermal Warning/Protection

UVLO | Current limit

Regulators

Linear Regulator | Switching Regulator

LDOSNVS
(0.8 V to 3.3 V, 100mV Step)
10mA

BUCK1
(0.6 V to 3.4 V, 25mV Step)
1000mA

LDO1
(0.6 V to 1.95 V, 50mV Step)
250mA

BUCK2
(0.6 V to 2.1875 V, 12.5mV Step)
1000mA, DVS

LDO2
(0.8 V to 3.3 V, 100mV Step)
250mA

LDO3
(0.8 V to 3.3 V, 100mV Step)
250mA

BUCK3
(0.6 V to 2.1875 V, 12.5mV Step)
1000mA, DVS

LDO4
(0.8 V to 3.3 V, 100mV Step)
250mA

BUCK4
(0.6 V to 3.4 V, 25mV Step)
1000mA

Load Switch/LED driver

Load Switch1
(LED1 driver) | Load Switch2
(LED2 driver)

Load Switch3
(LED3 driver) | Load Switch4
(LED4 driver)

GET DIAGRAM PDF (/ASSETS/BLOCK-DIAGRAM/EN/KIT-PCA9460-EVB.PDF)

Supported Devices

Power Management

PMICs

- **PCA9460** (/products/power-management/pmics-and-sbcs/pmics/13-channel-power-management-integrated-circuit-pmic-for-ultra-low-power-application:PCA9460): 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application

System Features

- Four 1 A high-efficiency buck regulators, two of them with DVS
- Four 250 mA linear regulators
- One 10 mA SNVS LDO
- Four load-switches with active discharge resistor
- Power control IO
- ESD protection
- 7 x 6 bump array, 0.4 mm pitch, WL-CSP, 2.86 mm x 2.46 mm

Connectivity

- I²C connectivity support up to Fm+ 1 MHz

I²C to USB Tool

- TFDI C232HM-DDHSL-0

Supported MPU

- PCA9460A: i.MX 8ULP + LPDDR4 / PCA9460B: i.MX 8ULP + LPDDR4X / PCA9460C: i.MX 8ULP + LPDDR3

Applications

Industrial

Industrial HMI (/applications/industrial/factory-automation/industrial-hmi:INDUSTRIAL-HMI)

Mobile

Hearables (/applications/mobile/wearables/hearables:HEARABLES)   Wristband (/applications/mobile/wearables/wristband:WRISTBAND)

Smart Watch (/applications/mobile/wearables/smart-watch:SMARTWATCH)

Smart City

Transport Ticketing (/applications/smart-city/transportation/transport-ticketing:TRANSPORT-TICKETING)

Smart Home

Home Security and Surveillance (/applications/smart-home/home-control-and-security/home-security-and-surveillance:HOME-SECURITY-SURVEILLANCE)

Major Home Appliances (/applications/smart-home/smart-appliance/major-home-appliances:MAJOR-HOME-APPLIANCE)

Robotic Appliance (/applications/smart-home/smart-appliance/robotic-appliance:ROBOTIC-APPLIANCE)

Small and Medium Appliances (/applications/smart-home/smart-appliance/small-and-medium-appliances:SMALL-MEDIUM-APPLIANCE)

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