XMC7200 Motor Drive Card

Evaluate and develop motor control applications using the XMC7200 microcontroller

Infineon's XMC7200 Motor Drive Card is designed to demonstrate the motor control features of the XMC7200 microcontroller (XMC7200D).

XMC7200D is the high-end series of XMC7000 family. It is designed for industrial applications and it is a true programmable embedded system-on chip, integrating two 350-MHz Arm® Cortex®-M7 as the primary application processors, a 100-MHz Arm® Cortex®-M0+ that supports low-power operations, up to 8-MB flash and 1-MB SRAM, Gigabit Ethernet, Controller Area Network Flexible Data-Rate (CAN FD), Secure Digital Host Controller (SDHC) supporting SD/SDIO/eMMC interfaces, programmable analog and digital peripherals that allow faster time-to-market.

The motor drive card features two potentiometers, a push button, and two user LEDs for easy interaction and visual feedback. It includes a USB Type-C connector for convenient USB device connectivity. The onboard debugger based on J-Link simplifies programming and debugging tasks. Additionally, it offers a Tracebox and ETM header. With four hall sensor headers, four encoder headers, a mikroBUS header, and a high-density connector, it provides the flexibility and expandability for sensor integration and connectivity options. The board supports operating voltages from 3.3 V to 5.0 V for XMC7200D.

The ModusToolbox™ Motor Suite supports various boards and is used to develop and tune motor control applications. Motor Suite is a set of tools that enables to spin motors and optimize system easily and quickly, its GUI supports developers in each step – parameterization, oscilloscope tracing, and dashboard for system visualization. The XMC7200 Motor Drive Card makes full use of the ModusToolbox™ Motor Suite, including a high-performance library for motor control.

For more details on XMC7200D, see AN234334 - Getting started with XMC7000 MCU on ModusToolbox™ software application note that aids you in creating a customized design using the Eclipse IDE for ModusToolbox™ software.

For more Information visit Infineon's XMC7200 Motor Drive Card product page.

Key features

- Quad - 3 phase motor control
- Isolated Segger On board debugger
- Multiple feedback sensors
- High density connector
- Isolated single power supply
- Wi-Fi connectivity using add-on module
- Kit contents:
  - XMC7200 motor drive card
  - Interface card

Key benefits

- "Real life" motor control use cases
- Ease of use and less complexity
- Galvanic isolation protection
- Precise positioning of motor axis
- Ability to remotely access the kit
- Multi-connectivity enablement
- Provision for adaptor board
- Maximum design flexibility
- Different ways of power supply

Key Applications

Industrial	Servo drives
	General purpose drives
	Robotics
	Multicopter
	Light electric vehicles

Ordering Part Numbers

PN	CPU Core	Max CPU Speed	Package
KIT_XMC7200_DC_V1/ SP005959106 KITXMC7200DCV1TOBO1	Arm® Cortex®-M7	350 MHz	Kit

Block Diagram

KIT_XMC7200_DC_V1 Motor kit functional block diagram
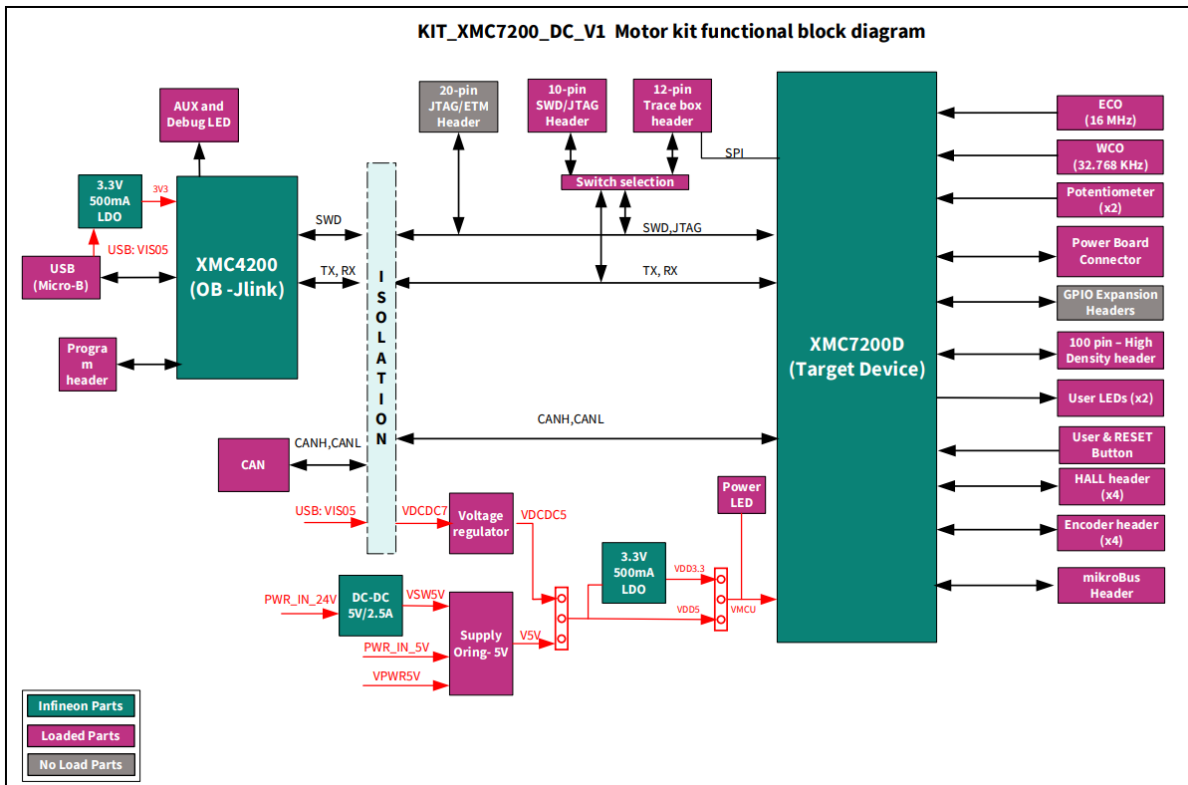
For further assistance go to https://www.infineon.com/cms/en/about-infineon/company/contacts/support/.
Visit community.infineon.com to ask questions in the Infineon developer community.

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