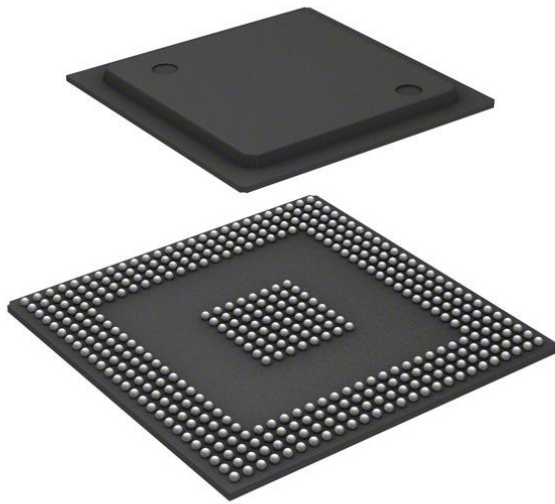


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SPC5775EDK3MME3R Datasheet

DiGi Electronics Part Number	SPC5775EDK3MME3R-DG
Manufacturer	NXP USA Inc.
Manufacturer Product Number	SPC5775EDK3MME3R
Description	IC MCU 32BIT 4MB FLASH 416MAPBGA

<https://www.DiGi-Electronics.com>

Detailed Description

e200z7 MPC57xx Microcontroller IC 32-Bit Dual-Core 264MHz 4MB (4M x 8) FLASH 416-MAPBGA (27x27

This model SPC5775EDK3MME3R is available at [DiGi Electronics](#).

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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

SPC5775EDK3MME3R

Series:

MPC57xx

DiGi-Electronics Programmable:

Not Verified

Core Size:

32-Bit Dual-Core

Connectivity:

CANbus, EBI/EMI, Ethernet, FlexCANbus, LINbus, SCI, SPI

Number of I/O:

293

Program Memory Type:

FLASH

RAM Size:

512K x 8

Data Converters:

A/D 40x12b eQADCx2

Operating Temperature:

-40°C ~ 125°C (TA)

Supplier Device Package:

416-MAPBGA (27x27)

Base Product Number:

Manufacturer:

NXP USA Inc.

Product Status:

Active

Core Processor:

e200z7

Speed:

264MHz

Peripherals:

DMA, LVD, POR, Zipwire

Program Memory Size:

4MB (4M x 8)

EEPROM Size:

-

Voltage - Supply (Vcc/Vdd):

3V ~ 5.5V

Oscillator Type:

External

Mounting Type:

Surface Mount

Package / Case:

416-BGA

MPC5775B/E Microcontrollers

Ultra-Reliable MCUs Built on
Power Architecture® Technology

Product One-Sheet

Multicore Performance – High performance and integration for motor control and battery management.

Advanced Timers and ADCs – Programmable motor control timer (eTPU) and Sigma-Delta ADC converters on the MPC5775E MCU allow for advanced motor control and implementation of a software resolver without expensive external components.

Quality, Security and Redundancy – AEC-Q100 qualification testing, on-chip security encryption protection using CSE and TDM for tamper proofing, and lockstep cores help support ASIL D and SIL 3 functional safety (ISO26262/IEC61508) requirements.

MPC5775B/E Specifications

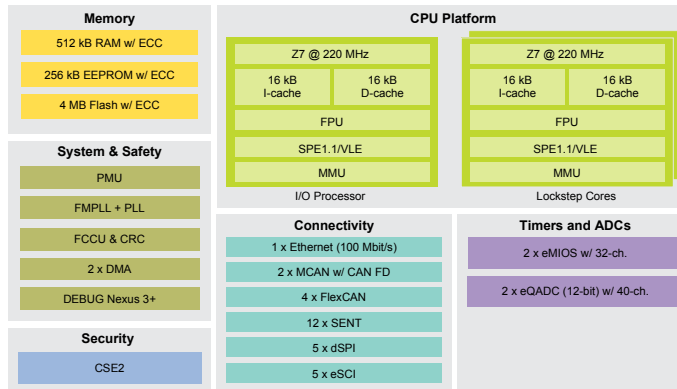
Feature	MPC5775B	MPC5775E
Flash	4 MB	4 MB
RAM	512 KB	512 KB
Cores	2 x z7 (1 in LS)	2 x z7 (1 in LS)
Speed	220 MHz	264 MHz
Timer/PWM	2 x eMIOS, 32-ch. total	2 x eMIOS, 32-ch. total 3 x eTPU, 96-ch. total
Analog	2 x eQADC, 40-ch. total	4 x eQADC, 70-ch. total 4 x SD ADC, 20-ch. total
Ethernet	1 x FEC module	1 x FEC module
SCI/SPI	5/5	5/5
CAN	2 x MCAN FD, 4x FlexCAN	2 x MCAN-FD, 4 x FlexCAN
Security	Hardware CSE module	Hardware CSE module
Op Range	3.0 V – 5.5 V	3.0 V – 5.5 V
Temp (Ta)	-40 °C to 125 °C	-40 °C to 125 °C
Package	416 BGA	416 BGA

www.nxp.com/MPC5775BE

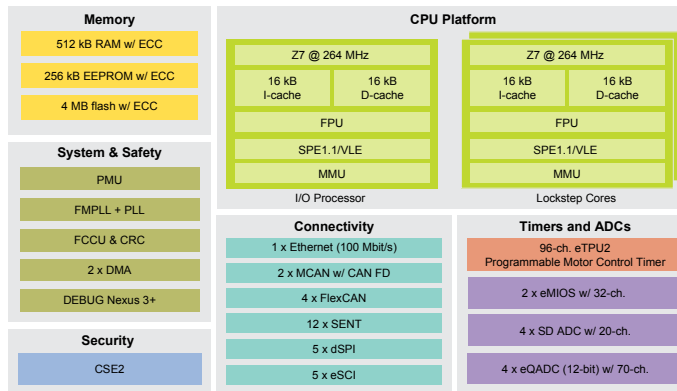
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Document Number: MPC5775BEFS REV 1

MPC5775B Block Diagram



MPC5775E Block Diagram



Target Applications

- Hybrid and electric traction motors
- Battery management systems (BMS)
- Engine control units (ECU)
- Safety-critical applications

Enablement Tools

- Evaluation boards:
 - MPC5775BE-416DS
 - MPC57XXXMB motherboard
- S32 Design Studio (S32DS)
- NVM/flash drivers
- AUTOSAR® MCAL drivers (SDK)
- Green Hills®, Wind River® (Diab)
- Lauterbach
- iSystem
- P&E Micro, ETAS and PLS

Orderable Samples

Part Number	Temp Range (Ta)	Package
SPC5775BDK3MME2	-40 to 125 °C	416-pin MAPBGA
SPC5775EDK3MME3	-40 to 125 °C	416-pin MAPBGA



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