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What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "[Embedded - Microcontrollers](#)"

| Details | |
|----------------------------|---|
| Product Status | Obsolete |
| Core Processor | S08 |
| Core Size | 8-Bit |
| Speed | 40MHz |
| Connectivity | CANbus, I ² C, LINbus, SCI, SPI |
| Peripherals | LVD, POR, PWM, WDT |
| Number of I/O | 25 |
| Program Memory Size | 32KB (32K x 8) |
| Program Memory Type | FLASH |
| EEPROM Size | 1K x 8 |
| RAM Size | 2K x 8 |
| Voltage - Supply (Vcc/Vdd) | 2.7V ~ 5.5V |
| Data Converters | A/D 10x12b |
| Oscillator Type | External |
| Operating Temperature | -40°C ~ 125°C (TA) |
| Mounting Type | Surface Mount |
| Package / Case | 32-LQFP |
| Supplier Device Package | 32-LQFP (7x7) |
| Purchase URL | https://www.e-xfl.com/product-detail/nxp-semiconductors/mc9s08dz32mlc |

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MC9S08DZ60 2ĭ ě { • , X(ɓ , | < Û À RAM Ã EEPROM Ã*ü bM2 ç û D B , |, X
Flash /ß c , | < Ã I/O ` { / (Š Ō ~ , < ÄE- o ~ , < Ã Ú 1 ß 3 2 O Ö

- , Ë yNIM6 ~ , < (0x0000 0x007F)
- P-0ÃNIM6 Ĥigh-page Å ~ , < Å 0x1800 0x18FF Å
- M2 ç û ~ , < (0xFFB0 0xFFBF)

| | | | |
|---|--|--|--|
| 0x0000 DIRECT PAGE REGISTERS 0x007F 128 BYTES 0x0080 RAM 4096 BYTES 0x107F 0x1080 FLASH 896 BYTES 0x13FF 0x1400 EEPROM ¹ 2 x 1024 BYTES 0x17FF 0x1800 HIGH PAGE REGISTERS 256 BYTES 0x18FF 0x1900 FLASH 59136 BYTES 0xFFFF | 0x0000 DIRECT PAGE REGISTERS 0x007F 128 BYTES 0x0080 RAM 3072 BYTES 0x0C7F 0x0C80 UNIMPLEMENTED 2176 BYTES 0x14FF 0x1500 EEPROM ¹ 2 x 768 BYTES 0x17FF 0x1800 HIGH PAGE REGISTERS 256 BYTES 0x18FF 0x1900 UNIMPLEMENTED 9984 BYTES 0x3FFF 0x4000 FLASH 49152 BYTES 0xFFFF | 0x0000 DIRECT PAGE REGISTERS 0x007F 128 BYTES 0x0080 RAM 2048 BYTES 0x087F 0x0880 UNIMPLEMENTED 3456 BYTES 0x15FF 0x1600 EEPROM ¹ 2 x 512 BYTES 0x17FF 0x1800 HIGH PAGE REGISTERS 256 BYTES 0x18FF 0x1900 UNIMPLEMENTED 25,344 BYTES 0x7BFF 0x7C00 FLASH 33792 BYTES 0xFFFF | 0x0000 DIRECT PAGE REGISTERS 0x007F 128 BYTES 0x0080 RAM 1024 BYTES 0x047F 0x0480 UNIMPLEMENTED 4736 BYTES 0x16FF 0x1700 EEPROM ¹ 2 x 256 BYTES 0x17FF 0x1800 HIGH PAGE REGISTERS 256 BYTES 0x18FF 0x1900 UNIMPLEMENTED 42,240 BYTES 0xBDFF 0xBE00 FLASH 16896 BYTES 0xFFFF |
| MC9S08DZ60 | MC9S08DZ48 | MC9S08DZ32 | MC9S08DZ16 |

¹ EEPROM 8x Ę /

EEPROM , X Ō Ä A° µ CAĖ -?• 4.5.10Ė EEPROM ô Ø Ä

Ø 4-1. MC9S08DZ60 , | < Ø

4.2 á!` •áG£ ÚG!

>< 4-1 á!` •áG£,X ÚG!™ %o ÄA1>< S*ü,X áG£ á/Ä N² ñ 5 è Ð '¤ o,X
MC9S08DZ60 2Ī ëE1*ü [É S*ü,X Ú1R Ä

>< 4-1. á!` •áG£><

| ÄP- / " Ä | áG£ | áG£ á/Ä |
|-----------------|------------------------|----------|
| 0xFFC0:0xFFC1 | ACMP2 | Vacmp2 |
| 0xFFC2:0xFFC3 | ACMP1 | Vacmp1 |
| 0xFFC4:0xFFC5 | MSCAN Transmit | Vcantx |
| 0xFFC6:0xFFC7 | MSCAN Receive | Vcanrx |
| 0xFFC8:0xFFC9 | MSCAN errors | Vcanerr |
| 0xFFCA:0xFFCB | MSCAN wake up | Vcanwu |
| 0xFFCC:0xFFCD | RTC | Vrtc |
| 0xFFCE:0xFFCF | IIC | Viic |
| 0xFFD0:0xFFD1 | ADC Conversion | Vadc |
| 0xFFD2:0xFFD3 | Port A, Port B, Port D | Vport |
| 0xFFD4:0xFFD5 | SCI2 Transmit | Vsci2tx |
| 0xFFD6:0xFFD7 | SCI2 Receive | Vsci2rx |
| 0xFFD8:0xFFD9 | SCI2 Error | Vsci2err |
| 0xFFDA:0xFFDB | SCI1 Transmit | Vsci1tx |
| 0xFFDC:0xFFDD | SCI1 Receive | Vsci1rx |
| 0xFFDE:0xFFDF | SCI1 Error | Vsci1err |
| 0xFFE0:0xFFE1 | SPI | Vspi |
| 0xFFE2:0xFFE3 | TPM2 Overflow | Vtpm2ovf |
| 0xFFE4:0xFFE5 | TPM2 Channel 1 | Vtpm2ch1 |
| 0xFFE6:0xFFE7 | TPM2 Channel 0 | Vtpm2ch0 |
| 0xFFE8:0xFFE9 | TPM1 Overflow | Vtpm1ovf |
| 0xFFEA:0xFFEB | TPM1 Channel 5 | Vtpm1ch5 |
| 0xFFEC:0xFFED | TPM1 Channel 4 | Vtpm1ch4 |
| 0xFFEE:0xFFEF | TPM1 Channel 3 | Vtpm1ch3 |
| 0xFFFF0:0xFFFF1 | TPM1 Channel 2 | Vtpm1ch2 |
| 0xFFFF2:0xFFFF3 | TPM1 Channel 1 | Vtpm1ch1 |
| 0xFFFF4:0xFFFF5 | TPM1 Channel 0 | Vtpm1ch0 |
| 0xFFFF6:0xFFFF7 | MCG Loss of lock | Vlol |
| 0xFFFF8:0xFFFF9 | Low-Voltage Detect | Vlvd |
| 0xFFFFA:0xFFFFB | IRQ | Virq |
| 0xFFFFC:0xFFFFD | SWI | Vswi |
| 0xFFFFE:0xFFFFF | Reset | Vreset |

