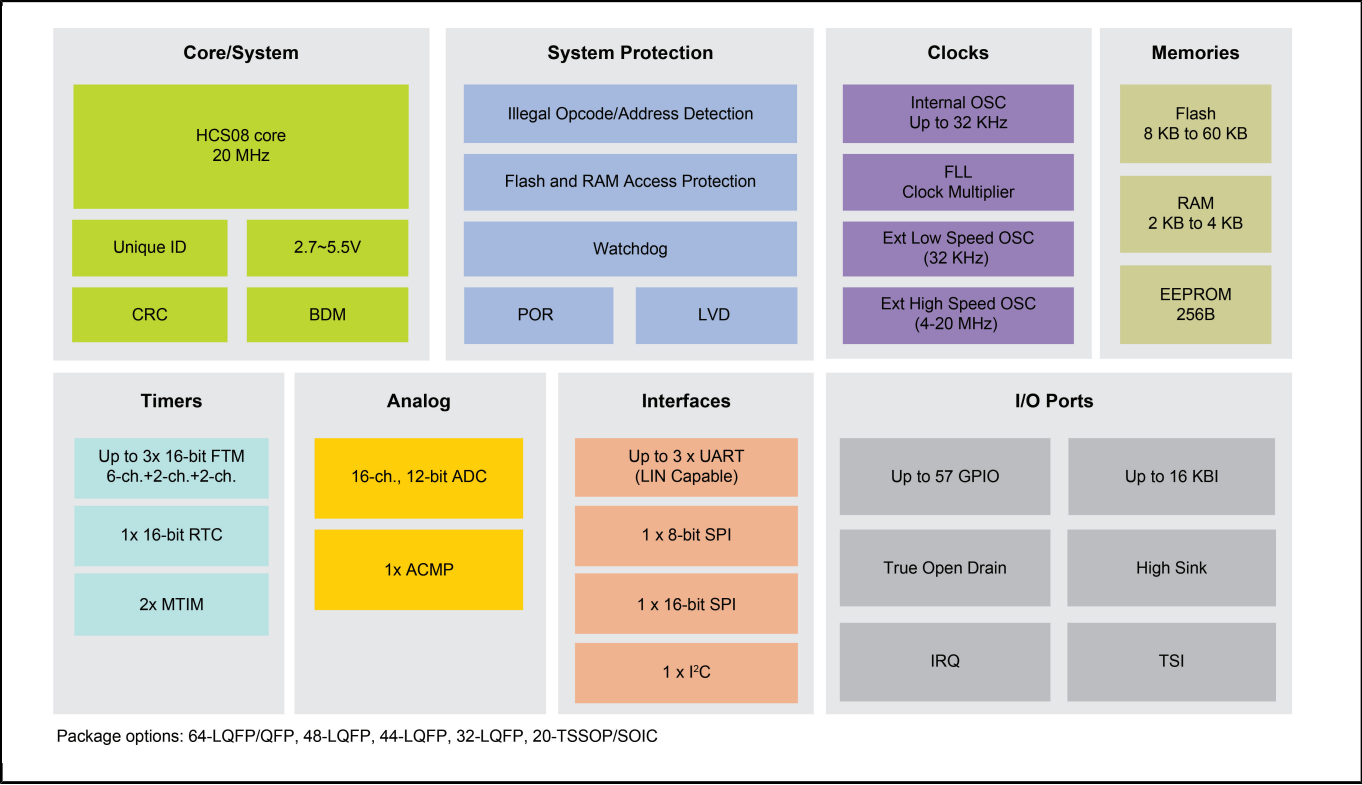# 8-bit 5V Full-featured MCU with EEPROM and TSI

S08PT

Last Updated: Dec 15, 2024

The S08PT MCUs integrate key features like touch sensing interface (TSI), EEPROM, and a motor control flex timer to simplify design and to help reduce system cost. The S08P family is simple, yet powerful, and offers excellent EFT/ESD performance. This scalable and pin-compatible MCU family reuses existing S08 core, IP and tools for easy migration from existing 8-bit S08 products. Our 5V 8-bit S08P MCU family gives your designs more durability and reliability in harsh industrial and user interface environments, meeting appliance safety standard IEC60730.

MC9S08PT Series Block Diagram Block Diagram

Core/System

**HCS08 core
20 MHz**

Unique ID	2.7~5.5V
CRC	BDM

System Protection

Illegal Opcode/Address Detection

Flash and RAM Access Protection

Watchdog

POR	LVD

Clocks

Internal OSC
Up to 32 KHz

FLL
Clock Multiplier

Ext Low Speed OSC
(32 KHz)

Ext High Speed OSC
(4-20 MHz)

Memories

Flash
8 KB to 60 KB

RAM
2 KB to 4 KB

EEPROM
256B

Timers

Up to 3x 16-bit FTM
6-ch.+2-ch.+2-ch.

1x 16-bit RTC

2x MTIM

Analog

16-ch., 12-bit ADC

1x ACMP

Interfaces

Up to 3 x UART
(LIN Capable)

1 x 8-bit SPI

1 x 16-bit SPI

1 x I²C

I/O Ports

Up to 57 GPIO	Up to 16 KBI
True Open Drain	High Sink
IRQ	TSI

Package options: 64-LQFP/QFP, 48-LQFP, 44-LQFP, 32-LQFP, 20-TSSOP/SOIC

View additional information for 8-bit 5V Full-featured MCU with EEPROM and TSI.

Note: The information on this document is subject to change without notice.