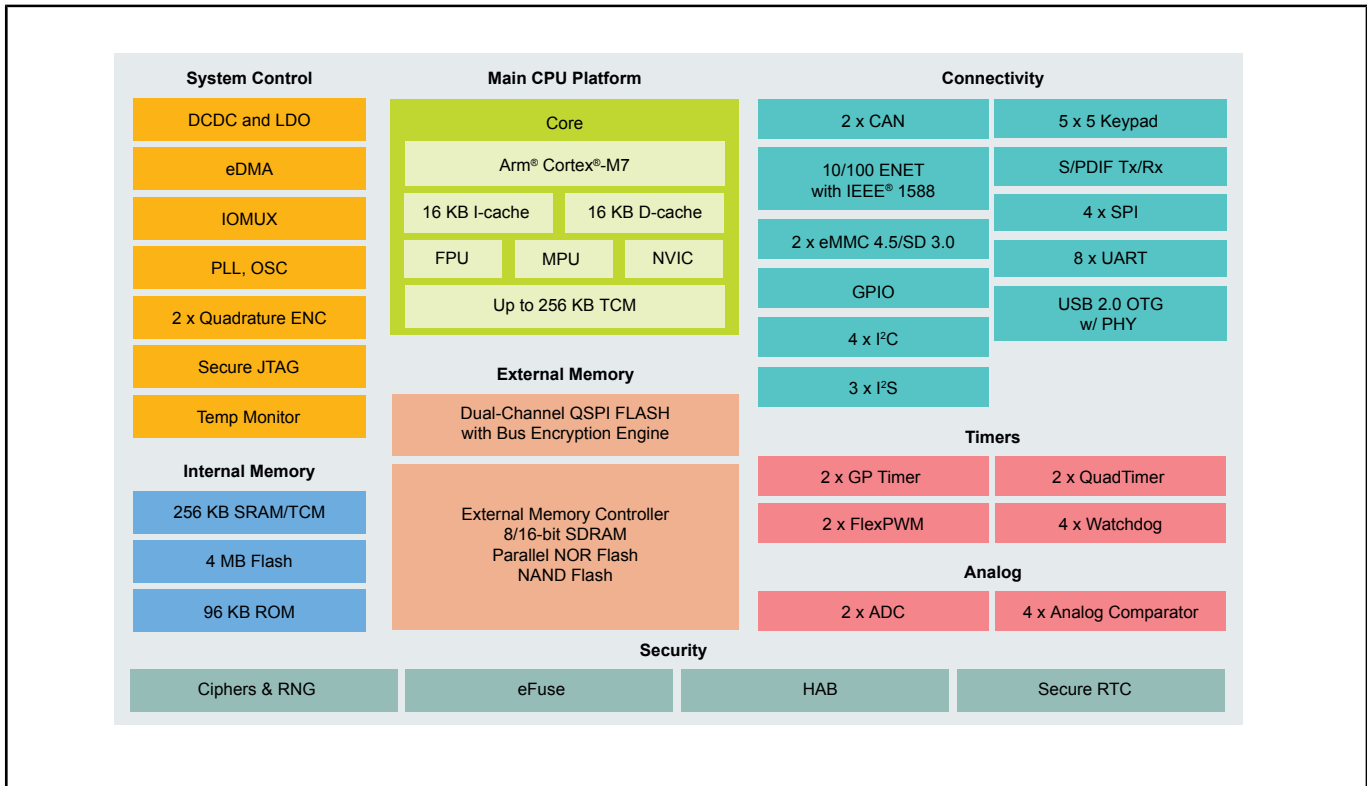# i.MX RT1024 Crossover MCU with Arm® Cortex®-M7 Core

i.MX-RT1024

Last Updated: Oct 14, 2022

i.MX RT1024 crossover MCUs are part of the EdgeVerse™ edge computing platform and expand the i.MX RT series by providing a small, low-cost LQFP package, further simplifying board design and layout for customers. The i.MX RT1024 MCU runs on the Arm® Cortex®-M7 core up to 500 MHz, provides 4 MB on-chip flash and 256 KB on-chip SRAM.

i.MX RT1024 Crossover MCU Block Diagram

System Control

- DCDC and LDO
- eDMA
- IOMUX
- PLL, OSC
- 2 x Quadrature ENC
- Secure JTAG
- Temp Monitor

Main CPU Platform

Core
- Arm® Cortex®-M7
- 16 KB I-cache
- 16 KB D-cache
- FPU
- MPU
- NVIC
- Up to 256 KB TCM

External Memory

Dual-Channel QSPI FLASH with Bus Encryption Engine

External Memory Controller
8/16-bit SDRAM
Parallel NOR Flash
NAND Flash

Internal Memory

- 256 KB SRAM/TCM
- 4 MB Flash
- 96 KB ROM

Connectivity

- 2 x CAN
- 5 x 5 Keypad
- 10/100 ENET with IEEE® 1588
- S/PDIF Tx/Rx
- 2 x eMMC 4.5/SD 3.0
- 4 x SPI
- GPIO
- 8 x UART
- 4 x I²C
- USB 2.0 OTG w/ PHY
- 3 x I²S

Timers

- 2 x GP Timer
- 2 x QuadTimer
- 2 x FlexPWM
- 4 x Watchdog

Analog

- 2 x ADC
- 4 x Analog Comparator

Security

- Ciphers & RNG
- eFuse
- HAB
- Secure RTC

View additional information for i.MX RT1024 Crossover MCU with Arm® Cortex®-M7 Core.

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