i.MX RT1015 Crossover MCU with Arm® Cortex®-M7 Core Operating Up to 500 MHz

i.MX-RT1015

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i.MX RT1015 Crossover MCUs are based on the Arm® Cortex®-M7 core for real-time performance and high integration and low cost Industrial and IoT applications.

The i.MX RT1015 CM7 operates at up to 500 MHz with 128 KB on-chip RAM that can be configured as TCM or general-purpose. The family offers various memory interfaces and a wide range of connectivity interfaces including UART, SPI, I2C and USB. 100 LQFP packages for low-cost PCB designs.

The i.MX RT1015 family is supported by the MCUXpresso ecosystem, which includes an SDK, a choice of IDEs and secure provisioning and configuration tools to enable rapid development.

i.MX RT1015 Block Diagram Block Diagram

System Control

Secure JTAG
PLL, OSC
eDMA
4 x Watchdog
6 x GP Timer
1 x Quadrature ENC
1 x QuadTimer
1 x FlexPWM
IOMUX

Main CPU Platform

Core

Arm® Cortex®-M7

16 KB I-cache	16 KB D-cache
FPU	128 KB TCM

External Memory

Dual-Channel Quad-SPI with Bus Encryption Engine

Internal Memory

128 KB SRAM/TCM
96 KB ROM

Power Management

DC/DC & LDO
Temp Monitor

Security

Ciphers & RNG
Secure RTC
eFuse
HAB

Connectivity

4x UART
4 x 4 Keypad
2 x I²C
2 x SPI
GPIO
3 x I²S/SAI
S/PDIF Tx/Rx
1 x USB 2.0 OTG with PHY

ADC

1 x ADC (9-ch.)

View additional information for i.MX RT1015 Crossover MCU with Arm® Cortex®-M7 Core Operating Up to 500 MHz.

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