

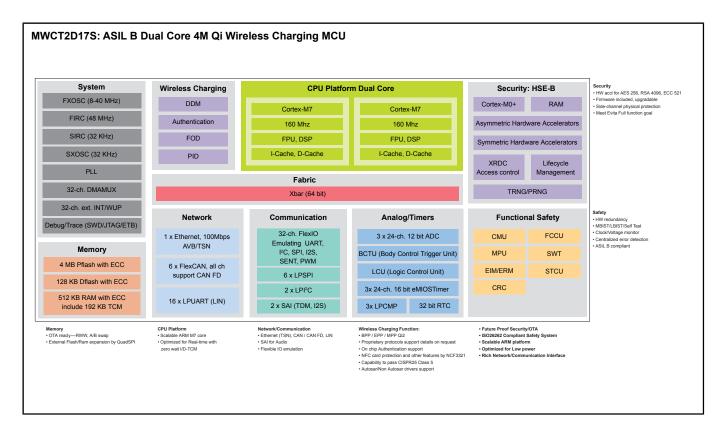
MWCT2xxxS Microcontroller for Wireless charging Transmitter ICs

MWCT2xxxS

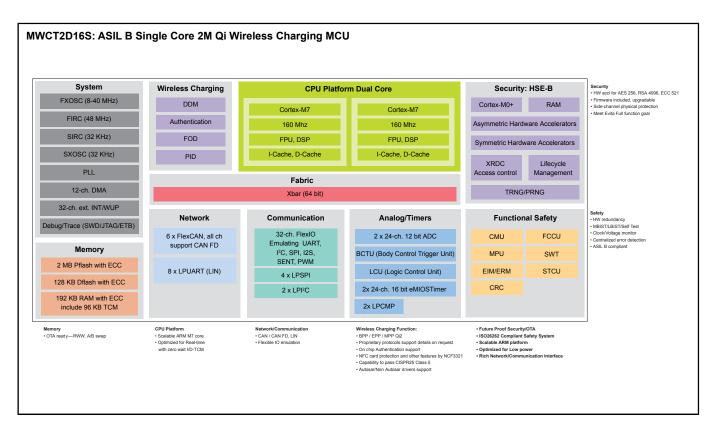
Last Updated: Feb 14, 2025

The NXP MWCT2xxxS multi-coil wireless charging transmitter ICs provide complete controller functionality with AUTOSAR® SW to implement a wireless charging transmitter solution in an automotive environment. With integrated security element and dual core is perfect solution for QI 2.x application

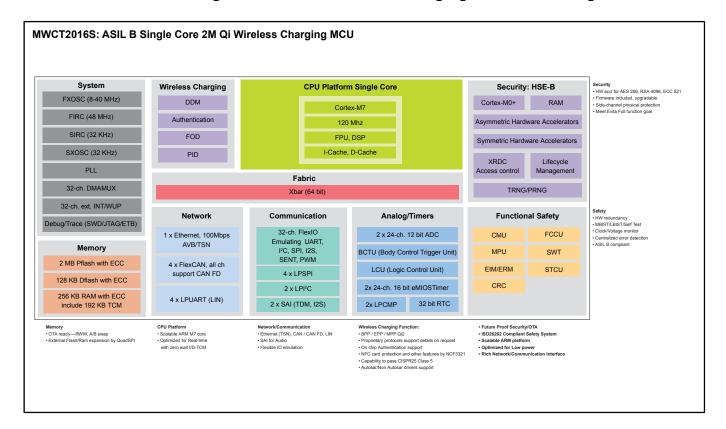
MWCT2D17S: ASIL B Dual Core 4M Qi Wireless Charging MCU Block Diagram



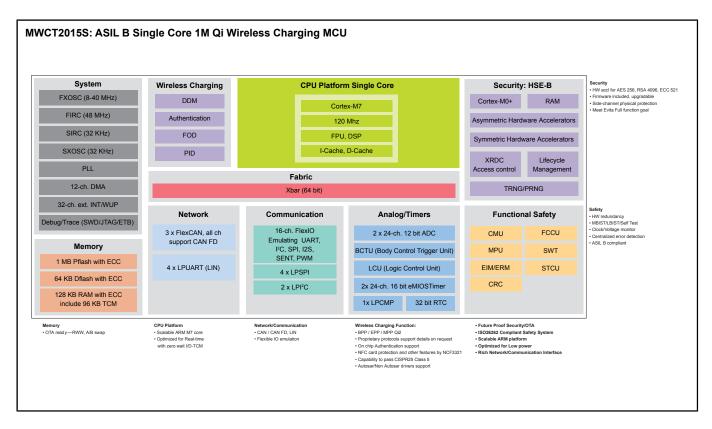
MWCT2D16S: ASIL B Single Core 2M Qi Wireless Charging MCU Block Diagram



MWCT2016S: ASIL B Single Core 2M Qi Wireless Charging MCU Block Diagram



MWCT2015S: ASIL B Single Core 1M Qi Wireless Charging MCU Block Diagram



MWCT2014S: ASIL B Single Core 512KB Qi Wireless Charging MCU System Wireless Charging **CPU Platform Single Core** ecurity HW accl for AES 256, RSA 4096, ECC 521 Firmware included, upgradable Side-channel physical protection Meet Evita Full function goal Security: HSE-B FXOSC (8-40 MHz) Cortex-M0+ DDM RAM Cortex-M7 FIRC (48 MHz) Authentication 120 Mhz Asymmetric Hardware Accelerators SIRC (32 KHz) FOD FPU, DSP Symmetric Hardware Accelerators I-Cache, D-Cache SXOSC (32 KHz) PID XRDC PLL Access control Management Fabric 12-ch. DMA TRNG/PRNG Xbar (64 bit) 32-ch. ext. INT/WUP Communication Analog/Timers **Functional Safety** Network HW redundancy HMIST/LBIST/Self Test Clock/Voltage monitor Centralized error detecti ASIL B compliant Debug/Trace (SWD/JTAG/ETB) 16-ch. FlexIO 3 x FlexCAN, all ch 2 x 24-ch. 12 bit ADC CMU **FCCU** Emulating UART, I²C, SPI, I2S, support CAN FD Memory MPU BCTU (Body Control Trigger Unit) SWT SENT, PWM 512 KB Pflash with ECC 4 x LPUART (LIN) LCU (Logic Control Unit) EIM/ERM STCU 4 x LPSPI 64 KB Dflash with ECC CRC 2 x LPI²C 2x 24-ch. 16 bit eMIOSTimer 1x LPCMP 32 bit RTC include 96 KB TCM Wireless Charging Function: - 8PP / EPP / MPP Q2 - Proprietary protocols support details on request - On chip Authentication support - NFC card protection and other features by NCF3321 - Sapability to pass CISPR25 Class 5 - Autosar/Non Autosar drivers support Future Proof Security/OTA ISO26262 Compliant Safety System Scalable ARM platform Optimized for Low power Rich Network/Communication Interface CPU Platform • Scalable ARM M7 core • Optimized for Real-time with zero wait I/D-TCM Network/Communication CAN / CAN FD, LIN Flexible IO emulation Memory OTA ready—RWW, A/B swap

View additional information for MWCT2xxxS Microcontroller for Wireless charging Transmitter ICs.

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

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