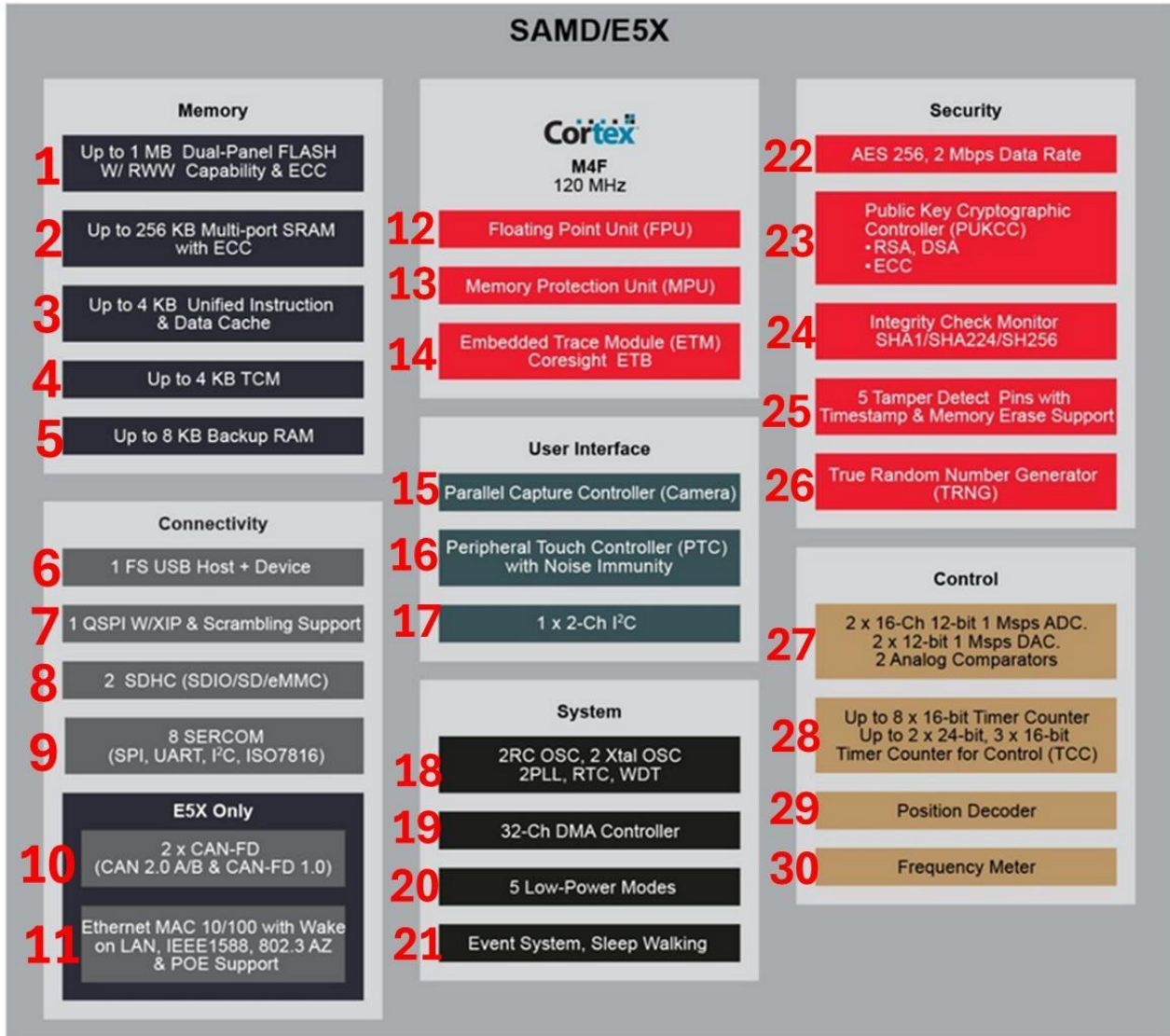


The SAMD5x/E5x series of Arm® Cortex®-M4F based microcontrollers (MCUs) offers a high-performance motor control solution. These devices offer connectivity features for increased application flexibility. They can be interfaced with our [LAN9252](#) 2-3-port EtherCAT® controller via the high-speed SPI interface to create embedded industrial designs.



Key Features

- Arm Cortex-M4F based MCU running at 120 MHz with single-precision Floating Point Unit (FPU)
- Quad Serial Peripheral Interface (QSPI) with Execute-in-Place (XIP) support
- Support for five low-power modes with class-leading 65 µA/MHz active power performance
- The controller stores on an board flash CardMicro SD till at least 4Gb
- Up to two Secure Digital Host Controllers (SDHCs) for eMMC/SDIO/SD

- Up to eight serial communication (SERCOM) ports configurable as UART/USART, ISO 7816, SPI or I²C
- The controller incorporates the following communication interfaces:
 - Ethernet 10/100/1000 with embedded Web Server
 - USB device
 - RS232 Full Duplex Up to 256K
 - RS485 Half Duplex Up to 256K / 128 Drivers (with protection)
 - RS422 Full Duplex / 128 Drivers (with protection)
 - WiFi / GSM as an addon (plugin) LoRa WAN (plugin)
 - BLE
- Full-speed USB with embedded host/device
- The controller includes 4 digital interfaces SPI 10Mbit
- The controller stores on an onboard Flash IC 256Mb
- The controller incorporates one (1) digital interface I2C with 1 channel 100k for communication with external devices and sensors
- Integrated security features including AES hardware encryption engines, TRNG and SHA-based memory integrity checker
- Hardware touch support with QTouch[®] technology Peripheral Touch Controller (PTC) supporting up to 256 channels of capacitive touch
- Pin compatibility with SAM D2x MCUs available on select packages
- Packages ranging from 48 to 128 pins