

Evaluation board with CAN FD transceiver

Microchip offers development boards for its ARM-based MCUs featuring CAN FD connectivity. The products are equipped with the company's CAN transceivers qualified for 5 Mbit/s.

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The SAMC21N Xplained Pro kit is a hardware platform for evaluating the ATSAMC21N18A micro-controller (Photo: Microchip)

The shown evaluation kit is supported by the Studio integrated development platform. It includes an on-board Embedded Debugger, eliminating the need for external tools to program or debug the ATSAMC21N18A micro-controller. The kit offers additional peripherals to extend the features of the board and ease the development of custom designs. The MCU on-chip two-channel CAN FD module is connected to two CAN FD transceivers supporting bit-rates up to 5 Mbit/s. The CAN FD interface comply with ISO 11898-1:2015, even if the datasheet and handbook reference the Bosch specification (non-ISO CAN FD). In the documentation, there is also no design hint given for the CAN clock. CiA recommends highly using 20 MHz, 40 MHz, or 80 MHz depending on your system requirements (CiA 601-1). The MCU features internal and external clock options with 48 MHz to 96 MHz with Fractional Digital Phase Locked Loop (FDPLL96M).

Additionally, the evaluation board provides a [LIN transceiver](#) as well as SPI, I²C, and USB connectivity. There are also four general-purpose I/O lines and a virtual COM port (CDC). Furthermore the Cortex-M0+ MCU has multiple timers, a 12-channel event system, and a 12-channel direct memory access controller.

Microchip has released some more evaluation boards featuring CAN FD connectivity. The SAM V71 Xplained Ultra kit is based on the SAM V71, SAM V70, SAM S70, or SAM E70 Cortex-M7 micro-controllers. Besides the CAN FD interface, these kits come with a [LIN interface](#). The SAMC21N Xplained Pro board is a hardware platform for evaluating the ATSAMC21N18A micro-controller). It comes with two CAN FD interfaces. Microchip is exhibiting at Embedded World 2018 in hall 1 booth 434.

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