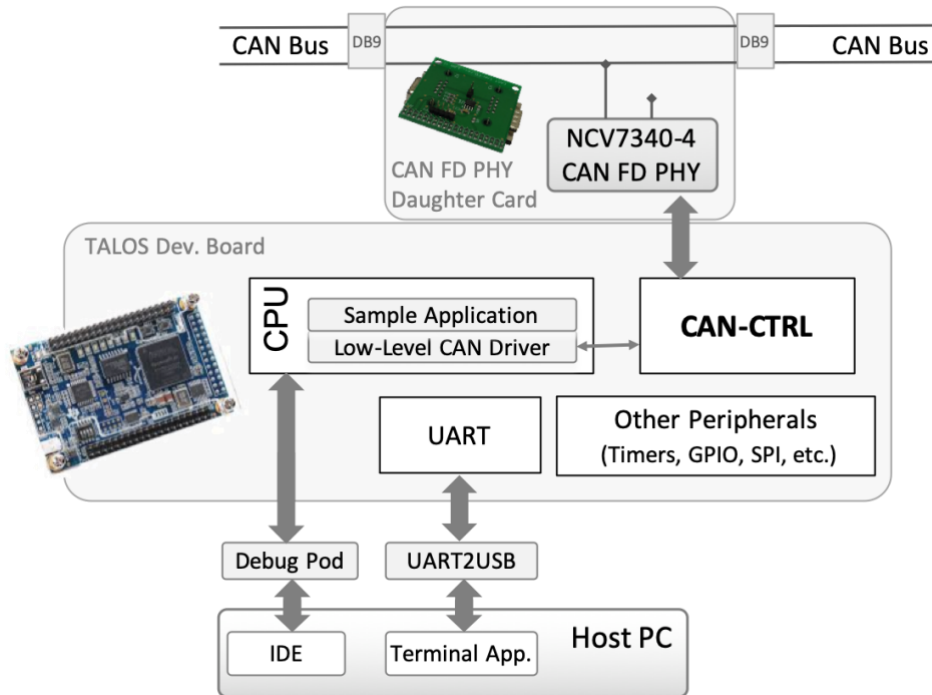# CANFD-RD
CAN2.0 & CAN FD Reference Design

The CANFD-RD is a complete reference design for a CAN node subsystem based on the CAN-CTRL CAN 2.0 & CAN FD Bus Controller IP Core. It can be used for evaluating the CAN-CTRL core, and it enables the rapid development of CAN FD applications or device prototypes.

Within the design, a 32-bit BA22-DE microcontroller core controls the CAN-CTRL core. The MCU, CAN controller, and peripherals are hosted on the Talos FPGA evaluation kit. A daughter card connects the design to a physical CAN bus using an NCV7340-4 or NCV7351 CAN transceiver from On Semiconductor. The subsystem receives commands from and reports status to a host PC via a UART.

The reference design is delivered with low-level drivers and a sample application in source code for the embedded CPU. Users can extend the provided sample application or develop their own using just the low-level drivers.

User application development requires a debug-pod (optionally delivered with the reference design) and a software IDE for the processor (available from CAST). User applications can exploit the available SPI, I2C, UART, and GPIO interfaces to communicate with other devices, such as sensors or actuators.

CAST services are available to port the reference design to other FPGA boards or to extend it with additional microprocessor peripherals. Integration with other CAN transceivers is also possible. Please contact CAST to discuss your project requirements (info@cast-inc.com, +1 201.391.8300).

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CAN-CTRL Core Sourced from

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