



REDLINE™

RAPID ENGINEERING DEVELOPMENT SYSTEMS

Modular Platforms Designed by Engineers for Engineers

RDL-ITFBTL-001

INTERFACE MODULE IN “DUO COMMS” FORMAT
FOR AURIX™ CAN AND ASC/UART BASED
INTELLIGENT BOOTLOADER DEVELOPMENT
XMC4500 MCU ASSISTED.

Overview

Designed for use with our REDline™ Carrier board, this Module provides seamless interfacing for development and troubleshooting of the AURIX™ MCU Platform Module bootloader firmware.

The module is intended to work with the CAN, CAN-SPD and ASC/UART boot option modes available on all AURIX™ devices.

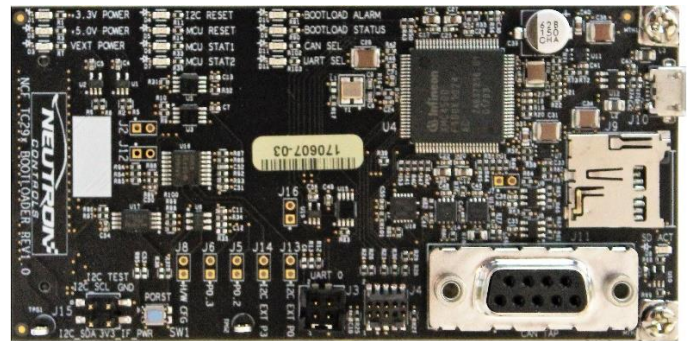
The “Duo Comms” form factor allows using either one of two available sockets on Carrier board.

Highly flexible and multi-staged bootloader firmware development capabilities are made possible by use of a built-in, standalone XMC4500 MCU.

A complete hardware development support package is available including: schematics, BOM, layout, gerbers, PCB stack-up, and high-speed signal design rules.

Base module software includes a CLI (via UART and/or USB) providing an easy to use communication interface bridging the HOST application to the AURIX™ MCU. Includes software BSP for XMC4500 and available ACS/Generic Bootstrap Loader sources for the AURIX™ MCU.

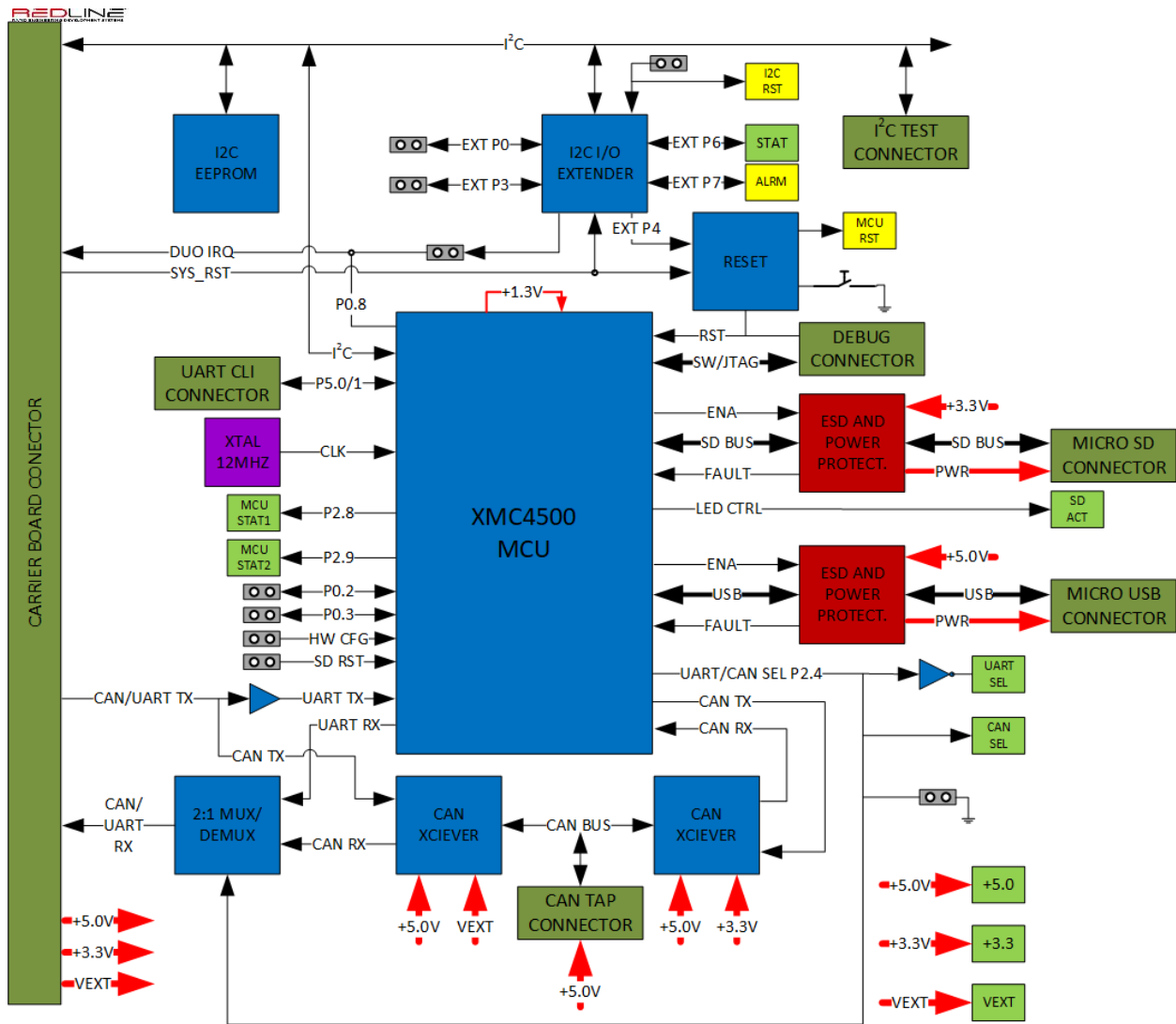
All software projects and sources are built using the TASKING VX-toolset for TriCore.



Features

- CAN, CAN single pin DAP (SPD) or ASC bootloader compatible interface.
- Self-contained XMC4500-based system with its own clock, core power and reset domains.
- USB2.0 connectivity for easy file transfer and host-based bootloader control for in-field application update, including wireless Software Over The Air (SOTA), and end of line programming.
- MicroSD card storage device provides available hardware support for multiple image scenarios and bootloader event logging recording.
- Secure Booting firmware emulation for HSM-enabled AURIX™ MCU.
- Industry standard CAN tap connector for 3rd party CAN emulation/monitoring tools' interconnect.
- Extra UART/CLI channel for direct XMC4500 communication.
- LED indication on +5V, +3.3V, VEXT and System Reset signals.
- “Status” and “Alarm” AURIX™-controlled LED.
- “Status1”, “Status2” and “CAN/ASC” interface selection LED indication by XMC4500.
- Jumper selectable hardware signal extensions for target system flag/trigger prototyping.

Block Diagram



Compatibility

The Module is designed to work with AURIX™ Base Carrier Development Platform

Part Number: **RDL-DEVCDP-00x**

Ordering Information

Module Part Number: **RDL-ITFBTL-001** (see datasheet for exact ordering options)

Supplier: Neutron Controls, 350 Palladium Drive, Suite 102 Ottawa, Ontario, Canada K2V 1A8

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