



# Real-Time Vehicle Management Unit (VMU)

## VEHICLE-MANAGEMENT-UNIT

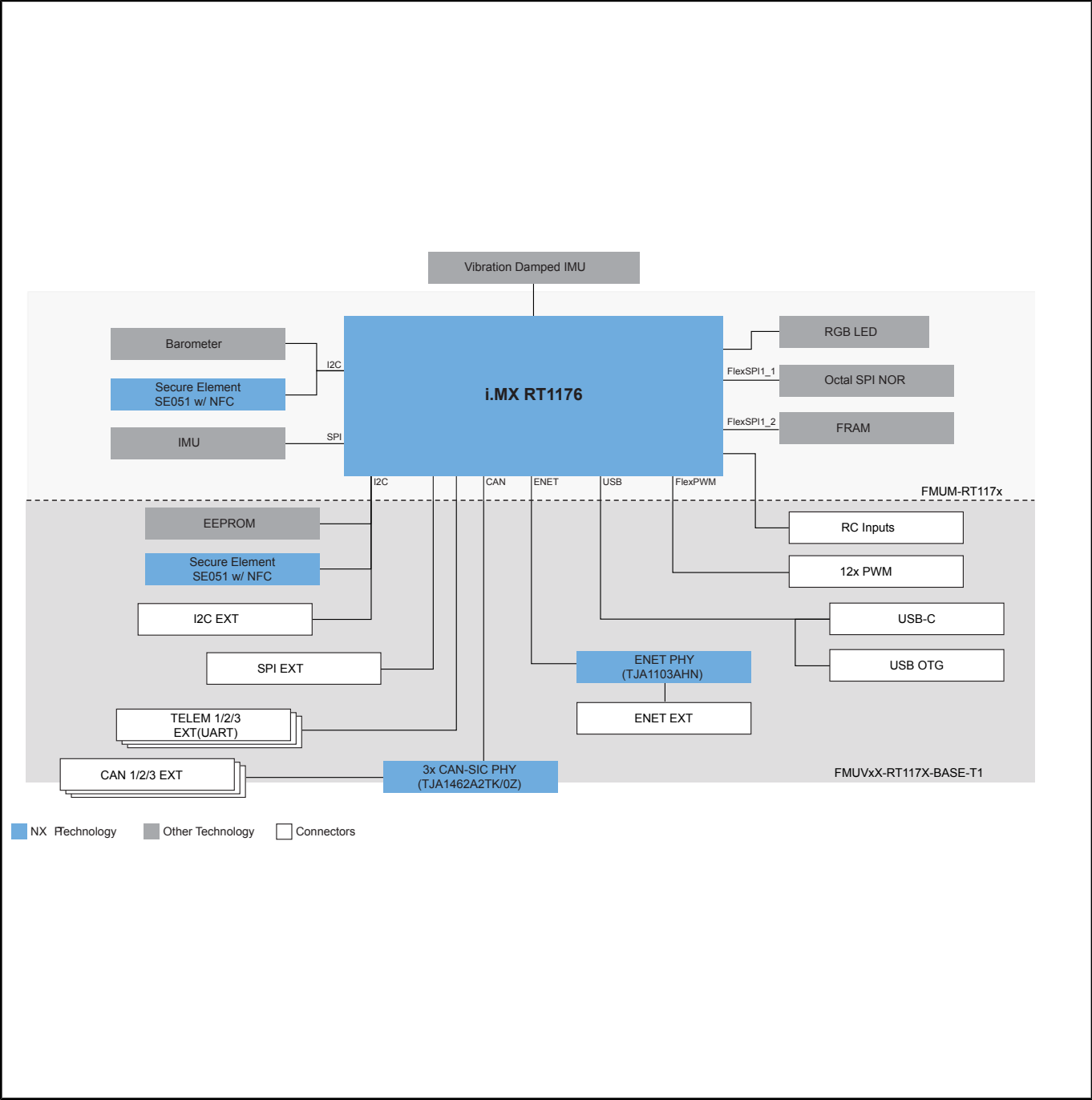
**Active**

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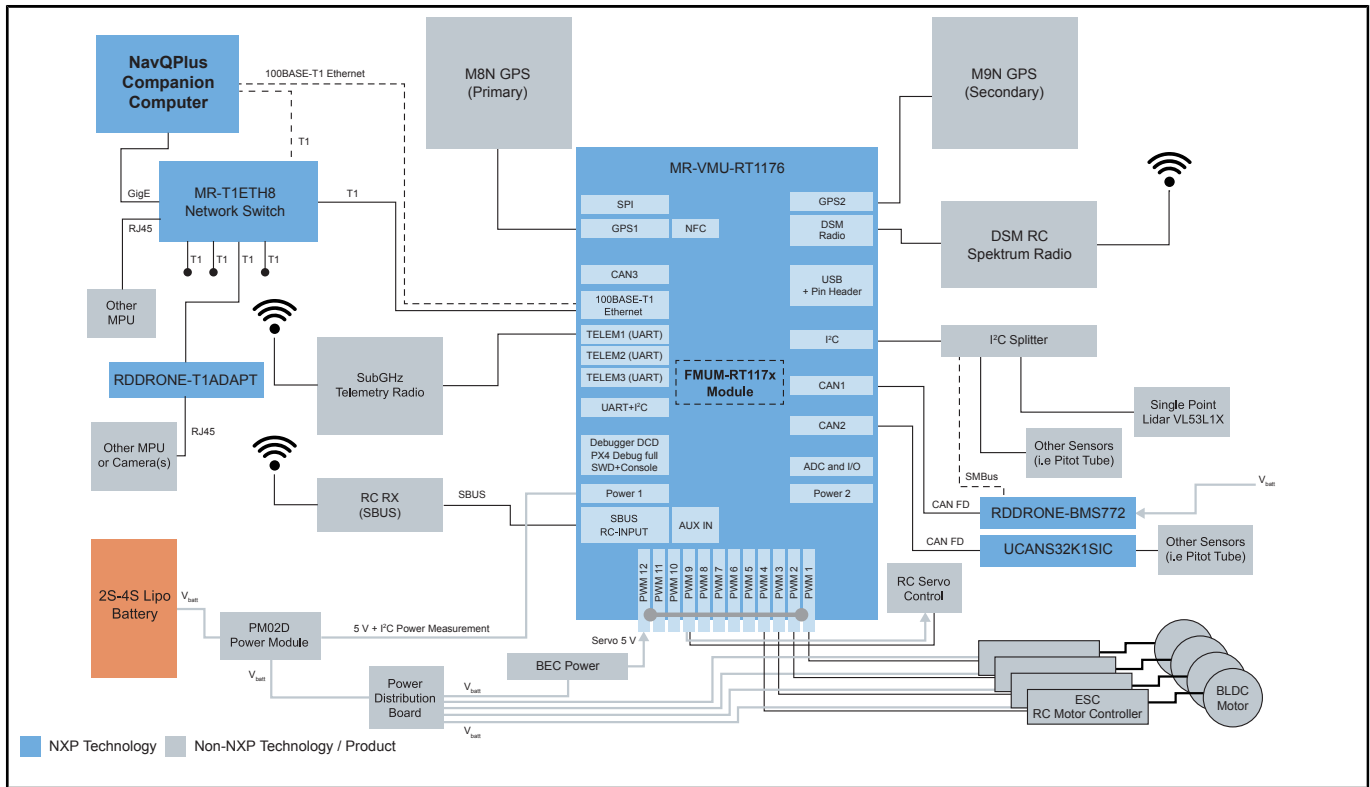
The MR-VMU-RT1176 is a compact, lightweight vehicle management controller solution designed for mobile robotics. It features an integrated inertial measurement unit (IMU), control and networking interfaces and a PX4 V6X standard-compliant form factor. The controller is extensible through the NXP mobile robotics ecosystem, offering robust compatibility.

- Open-source support via Zephyr RTOS, Cognipilot, NuttX, and PX4
- Modular architecture with a compute module and carrier board
- High-performance dual-core 1-GHz Cortex-M7/M4 processor ([i.MX RT1176 crossover MCU](#))

Real-Time Vehicle Management Unit Block Diagram Block Diagram



Drone System Block Diagram Block Diagram



View additional information for [Real-Time Vehicle Management Unit \(VMU\)](#).

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

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