NavQPlus AI/ML Companion Computer EVK for Mobile Robotics, ROS, Ground Stations and Camera Heads

8MPNAVQ

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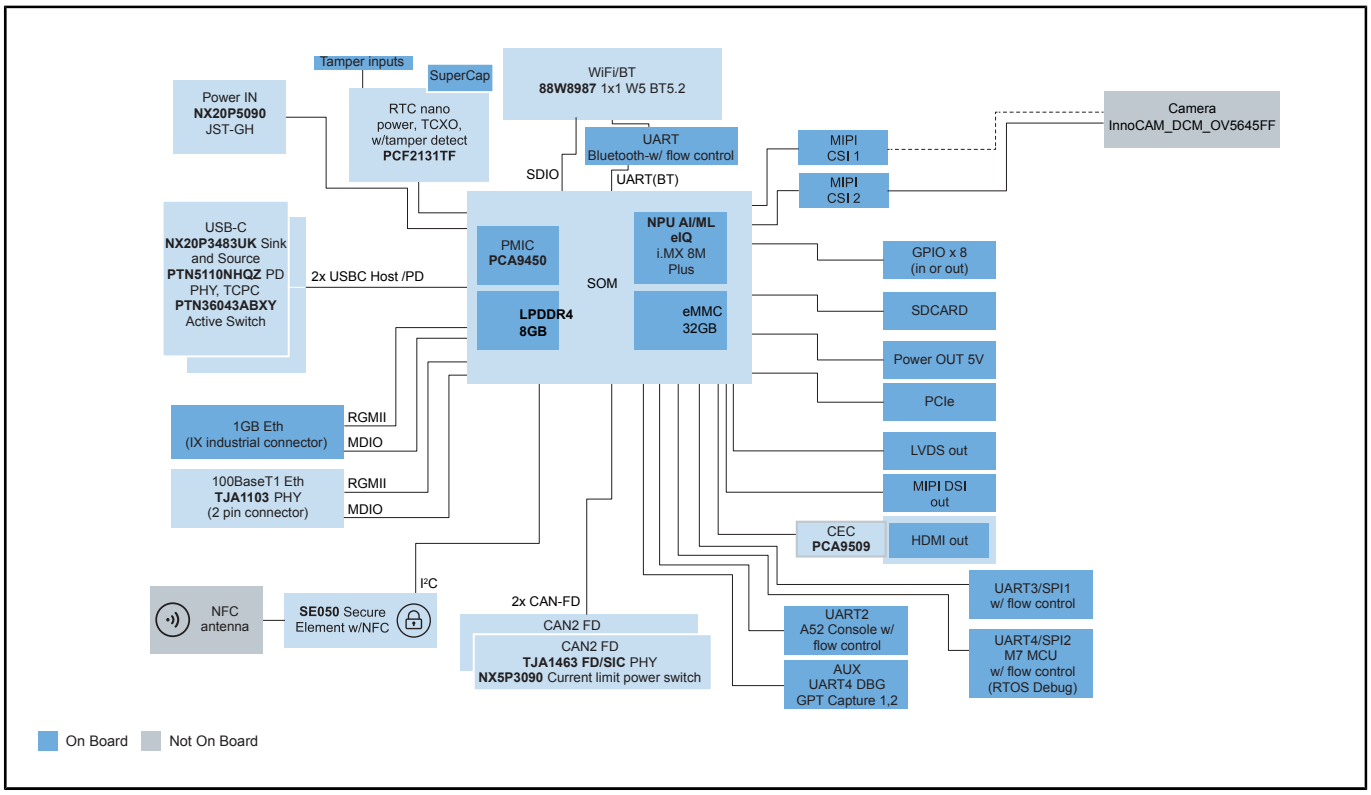
NavQPlus is a reference design for a mission computer, AKA companion computer, for use in mobile robotics using ROS2 and similar applications such as ground stations and smart cameras. It has a SOM identical to the i.MX 8M Plus EVK, with a minor exception that the NavQPlus supports 8GB LPDDR4 while the i.MX 8M Plus EVK SOM supports 6GB LPDDR4. The NavQPlus is an intermediate step between the i.MX 8M Plus EVK and a fully custom board design. It features a small form factor with Linux Foundation Dronecode connectors, dual USB, dual CAN, dual MIPI-CSI camera interfaces, IX-Industrial Ethernet connector, 100BaseT1 Two-wire ethernet, 9-20V input power management using USB-C PD, industrial real time clock (RTC) with tamper/timestamping and onboard SE050 Secure element with NFC.

Software supporting Linux Desktop POC, Python, eIQ and ROS2 has been prepared to support robotics development for low power machine learning, vision, compute, path planning and navigation. Additionally because of the HDMI, LVDS, MIPI DSI display interfaces, NavQPlus is also suitable for use in digital signage, groundstations, industrial remote controllers and other display applications needing connectivity.

NavQPlus Block Diagram



View additional information for NavQPlus AI/ML Companion Computer EVK for Mobile Robotics, ROS, Ground Stations and Camera Heads.

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