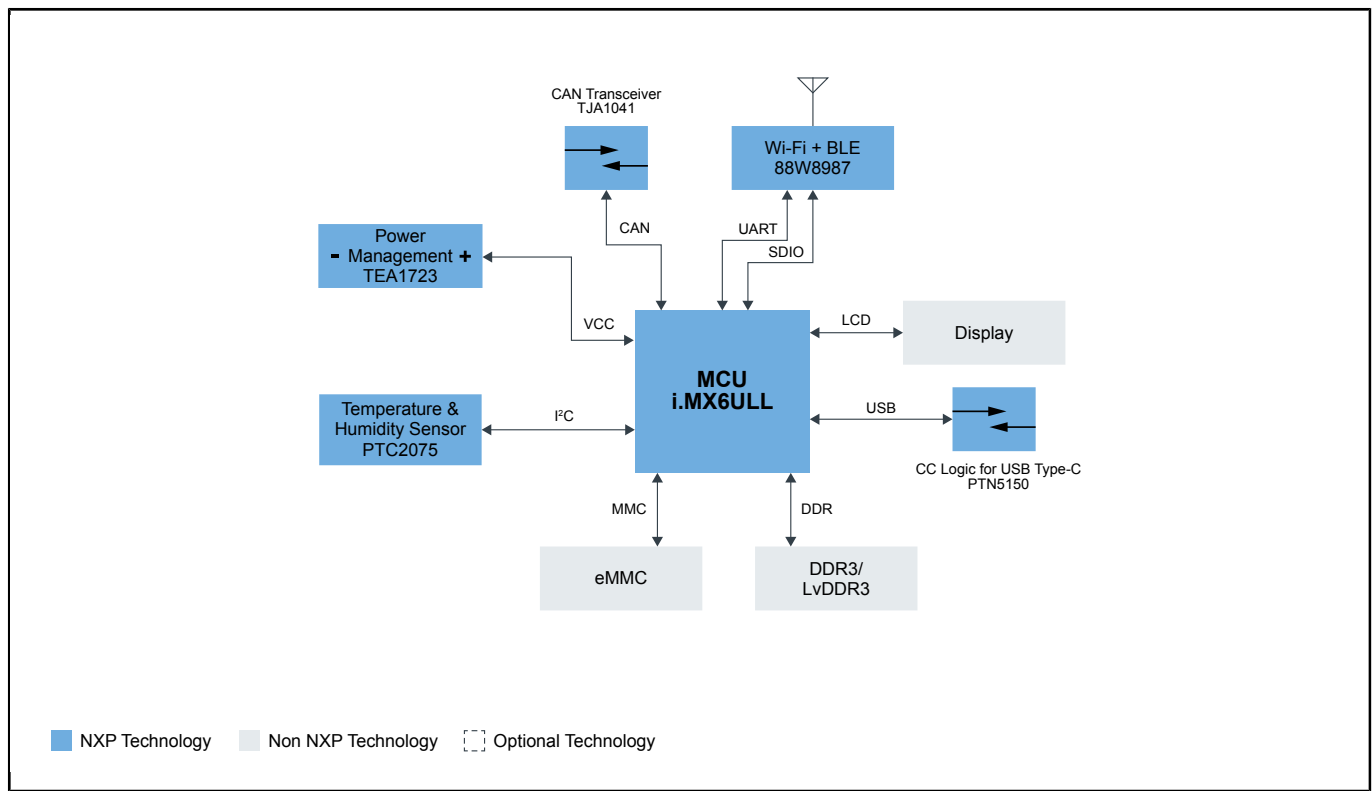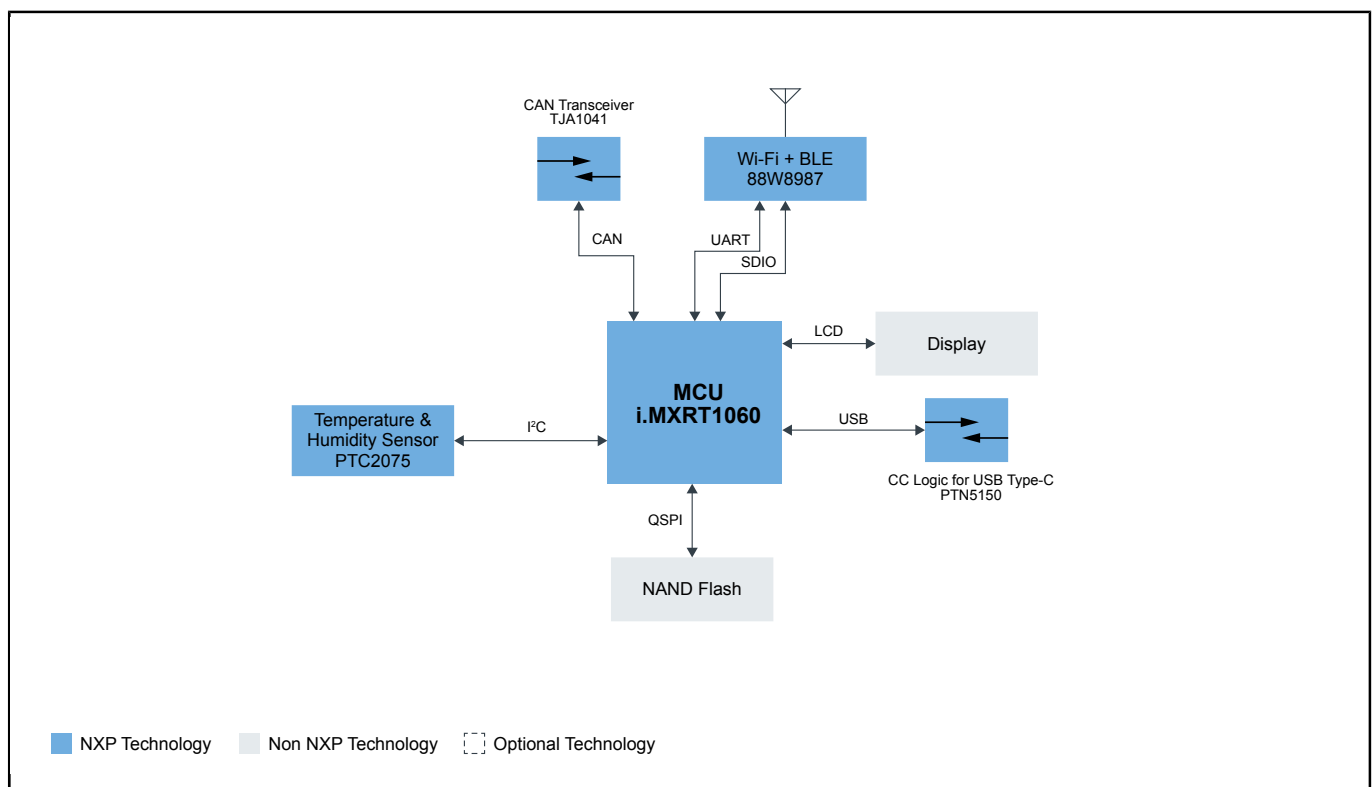# Residential Thermostat

RESIDENTIAL-THERMOSTAT

Last Updated: Dec 14, 2024

NXP offers a broad portfolio of sensors and MPUs for your Thermostat applications such the PCT2075 In order to sense the temperature, also this application implements a the i.X6ULL or the i.MX RT1060 which ones allows the communication with a display to monitor the temperature of the house. It also counts with Wi-Fi® and FlexCAN communication for the interaction with the rest of the devices connected to the system of the thermostat.

Residential Thermostat i.MX6ULL Block Diagram

CAN Transceiver
TJA1041

Wi-Fi + BLE
88W8987

Power
– Management +
TEA1723

CAN

UART

SDIO

VCC

LCD

Display

MCU
i.MX6ULL

Temperature &
Humidity Sensor
PTC2075

I²C

USB

CC Logic for USB Type-C
PTN5150

MMC

DDR

eMMC

DDR3/
LvDDR3

NXP Technology   Non NXP Technology   Optional Technology

Residential Thermostat i.MXRT1060 Block Diagram

CAN Transceiver
TJA1041

Wi-Fi + BLE
88W8987

CAN

UART

SDIO

LCD

Display

MCU
i.MXRT1060

Temperature &
Humidity Sensor
PTC2075

I²C

USB

CC Logic for USB Type-C
PTN5150

QSPI

NAND Flash

NXP Technology   Non NXP Technology   Optional Technology

View additional information for Residential Thermostat.