

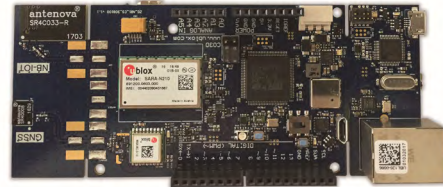
Product Summary

C030 Application Board

NB-IoT and 2G/3G mbed-enabled IoT starter kit

Highlights

- Quick prototyping with Arm® Mbed™ on integrated host MCU
- Simple testing of positioning applications with integrated GNSS
- Ideal for ultra low power designs and compact form factors
- Out-of-the-box international eUICC roaming
- Easily capture sensor data with Arduino® shields
- Compatible with u-blox Bluetooth and Wi-Fi modules



Product description

The u-blox C030 application board is an out-of-the-box rapid prototyping solution for IoT applications supporting new LPWAN (low power wide area network) cellular technologies, such as NB-IoT, and existing 2G/3G networks. The board is powered by an integrated, Arm® Mbed™ compatible Cortex-M4 host MCU with 1 MB FLASH and 256 kB RAM, leaving ample space for software development and debugging.

With its ultra low power design, it is ideal for applications that require long battery life in a compact form factor. It also enables straight forward development of location-aware applications, based on the integrated u-blox MAX-M8C GNSS module. Further, it includes out-of-the-box international eUICC roaming capabilities via Jersey Telecom. The board is compatible with u-blox Bluetooth and WiFi modules, as well as Arduino® shields to capture data from sensors, drive actuators, and work with battery solutions. Integrated temperature sensor and coulomb counter are included on the board.

Interfaces and electrical data

A standard header connector with 6 analog inputs, 8 PWM capable outputs, 22 GPIOs, 1 SPI, 1 UART, 1 I2C

C030-N211	NB-IoT integrated cellular and GNSS antennas SIM: mini SIM connector
C030-U201	SMA connector for external GNSS antenna SMA connector for external cellular antenna SIM: eUICC
Ethernet	RJ45 connector, 10/100Mbps
USB	Mini USB with mbed Interface (ST-Link, serial port, mbed ISP)
Power supply	Header connector pins or via extra USB connection for power boost
IO voltage	3.3 V

Kit includes

C030-N211	IoT starter kit with integrated antennas
C030-U201	IoT starter kit with SMA connectors External cellular antenna External active GNSS antenna eUICC with 50 MB data traffic/3-month subscription with JT included and ready for use

Software

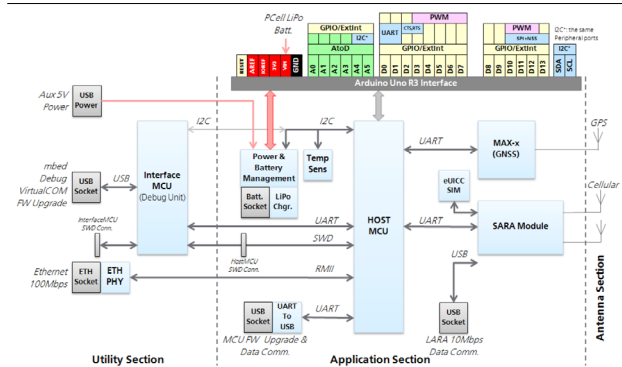
Quickly prototype in an Arm® Mbed™ OS5 software environment within a large eco-system of free peripheral and module libraries that are built on top of the SDK. The mbed.org online compiler is all you need to write and compile embedded software. Create a program in your private workspace, then compile and download the binary to the mbed device.

Online build environment and support forum

Support libraries	Cellular modem driver Embedded GPS driver stack TCP/IP stack with standard sockets and examples
-------------------	---

Visit further links os.mbed.com/platforms/ublox-C030-U201/ and os.mbed.com/platforms/ublox-C030-N211/

Block diagram



Legal Notice:

u-blox reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. Reproduction, use, modification or disclosure to third parties of this document or any part thereof without the express permission of u-blox is strictly prohibited.

The information contained herein is provided "as is". No warranty of any kind, either express or implied, is made in relation to the accuracy, reliability, fitness for a particular purpose or content of this document. This document may be revised by u-blox at any time. For most recent documents, please visit www.u-blox.com. Copyright © 2018, u-blox AG

Product variants

Each product variant includes an integrated MAX-M8C GNSS module and a Cortex M4 MCU.

C030-N211-0	mbed enabled IoT starter kit with SARA-N211 (LTE Cat NB1)
C030-U201-0	mbed enabled IoT starter kit with SARA-U201 (HSPA / GSM)

Further information

For contact information, see www.u-blox.com/contact-us.

For more product details and ordering information, see the product data sheet.