**Information Note**

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|---|---|
| **Topic** | **C030-N211 / C030-U201 Release to Production**<br>UBX-18007786  - |
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| **Date** | 22-Mar-2018 |

# 1   Affected Products

| Product Name | Order Number | Type No | Firmware | Remarks |
|---|---|---|---|---|
| C030-U201 | C030-U201-0 | C030-U201-0-00 | G0.V.00.00.10R | |
| C030-N211 | C030-N211-0 | C030-N211-0-00 | G0.V.00.00.10R | |

# 2   Type of Change

☐  Hardware modification
☐  Firmware update
☒  Documentation update
☐  Others

# 3   Description of Change

Known limitations are listed in Annex A.

# 4   Schedule

This information is effective as of 15th March, 2018.

# 5   Customer Impact and Recommended Action

N.A.

# 6   Reference Documents

[1]  C030 Application Board User Guide, u-blox Document UBX-17015029

# A  Description of Changes

## A.1  Hardware

**Synchronization issue between Interface (Debug) MCU and Host MCU during power up initialization**

The issue occurs because there is not enough memory on the development PC C030-N211/C030-U201 flash drive. Normally 1 MB flash memory on the Host MCU should be accessible as C030-N211/C030-U201 flash drive.

It occurs during the initial power-up sequence when the Interface (Debug) MCU tries to communicate to the Host MCU via SWD while the power supply rail of the Host MCU in the application section has not reached the steady state.

Workarounds:

- Power up the Host MCU prior to the interface (Debug) MCU using a LiPo battery and/or Aux or sniffer USB ports. Connect either a LiPo battery and/or Aux or sniffer USB port to a USB 5 V source before connecting the debug USB port.
- Wait at least 2 s after depowering the system (Vsys capacitors discharge).
- Solder a 10 k$\Omega$ resistor between IC3 MIC5255-3.3YM5 pin3 EN to the ground; and sequence the 3.3V power supply rail of Interface (Debug) MCU after the application section VSYS power rail

**Fuel gauge battery detection connection affects the battery charger circuitry**

The issue appears when the LiPo Battery is disconnected while it is being charged from the USB ports. Disconnecting the LiPo battery when it is being charged makes the battery charger fluctuate between the charging states (observed as the red battery charging LED (LED7) indicator flickering rapidly), because the battery charger regulation circuitry is affected by the IC19 pin10 BIN connection.

Workarounds:

- Connect / disconnect the LiPo battery only when there is no other power source connected, i.e. debug USB, Aux USB and sniffer USB should not be connected.
- Cutting the signal link to IC19 BQ27441DRZR pin10 BIN and soldering a 10 k$\Omega$ resistor from the same pin to the ground.

**Mechanically weak USB connectors**

The issue appears when, especially, the debug USB connector is used infrequently. Although the USB connectors are soldered to the PCB properly, a mechanical stress could lead the copper pads to fail, hence, the USB connectors get lose or break away.

Workaround:

- Make the horizontal movements when unplugging the connector, excessive stress orthogonal to the PCB may peel off the device.

## A.2  Firmware

None.