**Purpose:** This document is to detail the test environment, items to be tested, method/length of testing as well as other major feature/function testing.

**Responsibility:** This document, process, and eventual updates is the responsibility of the Hardware, Embedded Software, and Quality Assurance Departments.

**Related Documents:**

*Schematic:* E00002 2V1

*Layout:* E00002 2V1

*BOM:* PCBA-E00002-2v1 Revision 1

**Equipment Used:**

Raspberry Pi 4, 4g model

CMLaunchpad

Radio Bridge PN RBS301-DWS-US

**Known-Issues/Pre-cautions:**

* If to power with 3.3v directly into CM, it is not required but recommended to remove U1 and install R10

***Hardware Testing***

1. Plug in LoRaCM to CMLaunchpad utilizing a Raspberry Pi 4
   1. Done
2. Find/create software that can talk with the LoRaCM chip over serial port. Install on Pi. Confirm communication with the chip. Find the most basic command, such as “sys get vdd” and confirm that the result is as expected. (2.3.6.3 Page 20/61)
3. Duplicate test to ensure both UART and USB functional individually.
4. Power up door/window sensor; Radio Bridge PN RBS301-DWS-US. Determine how to establish communication between sensor and LoRa chip. Establish basic communication.
5. Confirm that you can determine sensor open/close events.
6. Ensure control of GPIO by toggling LED1, 2 ,3, and 4
7. Determine if possible to write small programs and/or conditions to module via UART/USB (ex LED2 TX, LED3 RX)