XTER CONNECT

Multi-use Location, Tracking and Detection Device

LoRaWAN™

Bluetooth™

Xter-Tag
Professional indoor Location Device

Xtertag 000078

CE

V 2.0

A wireless location device making best use of complimentary technologies (LoRa & Bluetooth) to address a multitude of location, tracking and detection needs in IoT by using case-specific software within a single hardware design. The Xter-Tag is deployable as standalone for any LoRaWAN™ public or private IoT network, with easy field deployment and network installation.

Xter-Tag

(V 2.0)

A single location device addressing a multitude of IoT needs:

- **Location services:** used as a Tag or a fixed beacon (or Anchor)

- **Proximity Detection:** used as Wearable Badge to measure proximity

Xter-Tag 2.0 Technical Overview

- **LoRaWAN™ and Bluetooth enabled**

- LoRaWAN Protocol Stack 1.02

- Fully integrated LoRa & BLE matching and Antennas

- LoRa based on Semtech SX126x series transceiver

- BLE section based on Nordic Semi nRF52 Bluetooth 5.2 SoC

- Integrated temperature sensor

Technical Overview
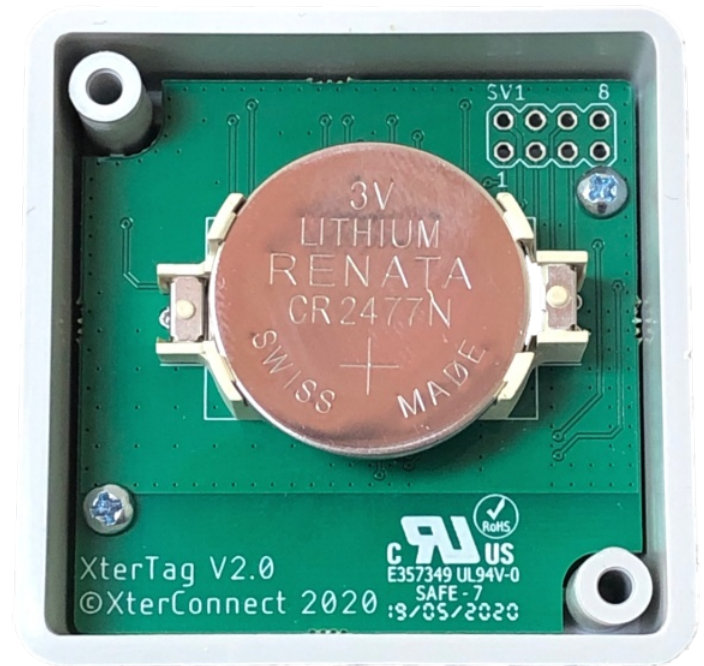
- -96 dBm sensitivity in *Bluetooth*® low energy mode

- Supported data rates: 1 Mbps, 2 Mbps *Bluetooth*® low energy mode

- -20 to +4 dBm TX power, configurable in 4 dB steps

- On-chip balun (single-ended RF)

- 5.3 mA peak current in TX (0 dBm)

- 5.4 mA peak current in RX

- RSSI (1 dB resolution)

- 512 kB Flash and 64 kB SRAM Analog and Digital peripherals

- Supply Voltage 1.8V to 3.6V single RENATA CR2477N battery

- Autonomy: 1 month for Social proximity badges
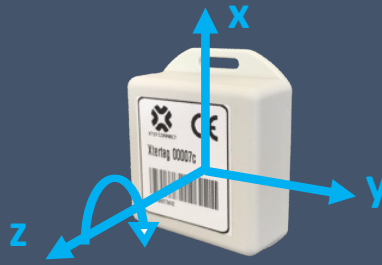
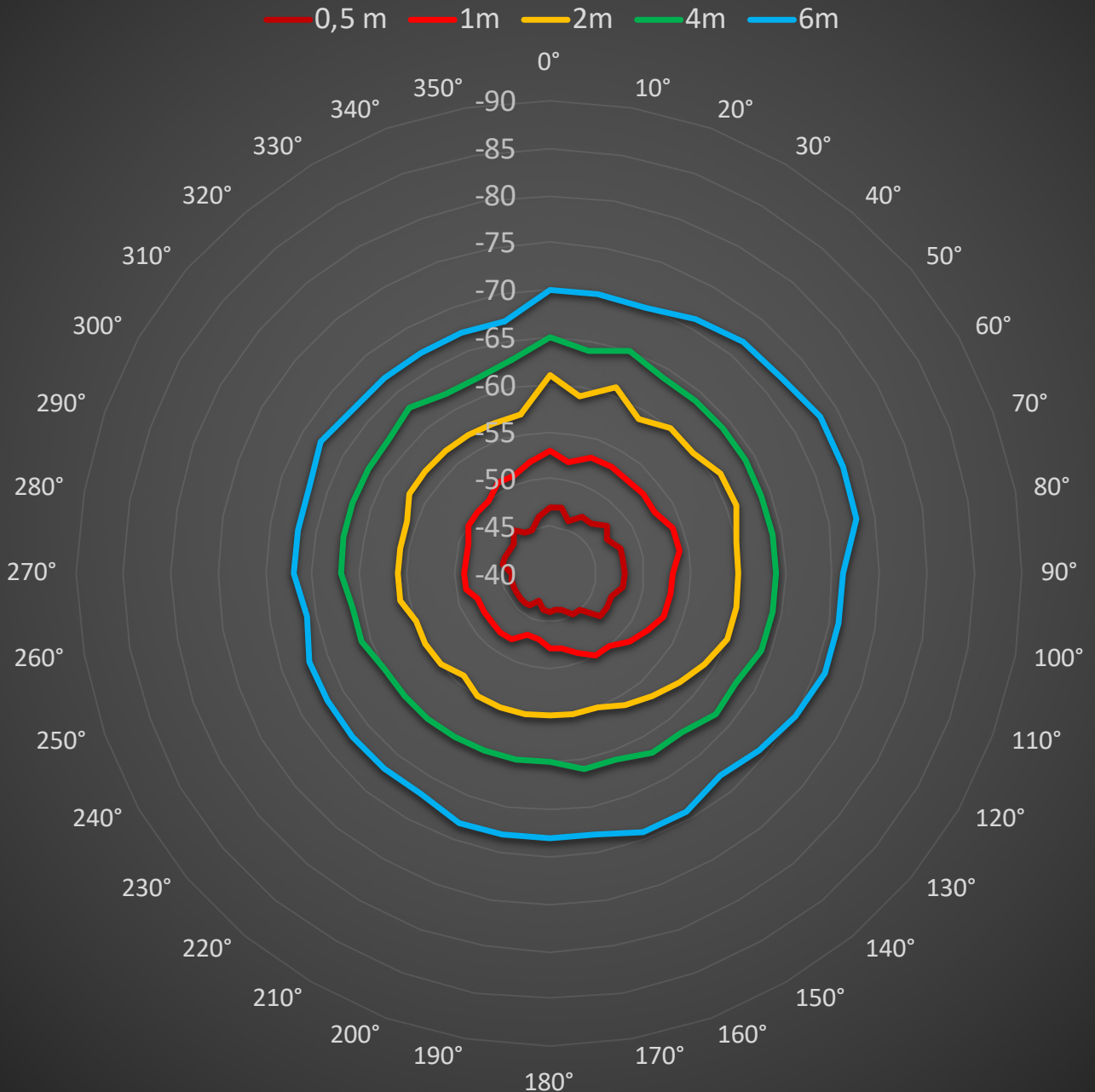   6 month for Anchors

Bluetooth 3-Axis Performance

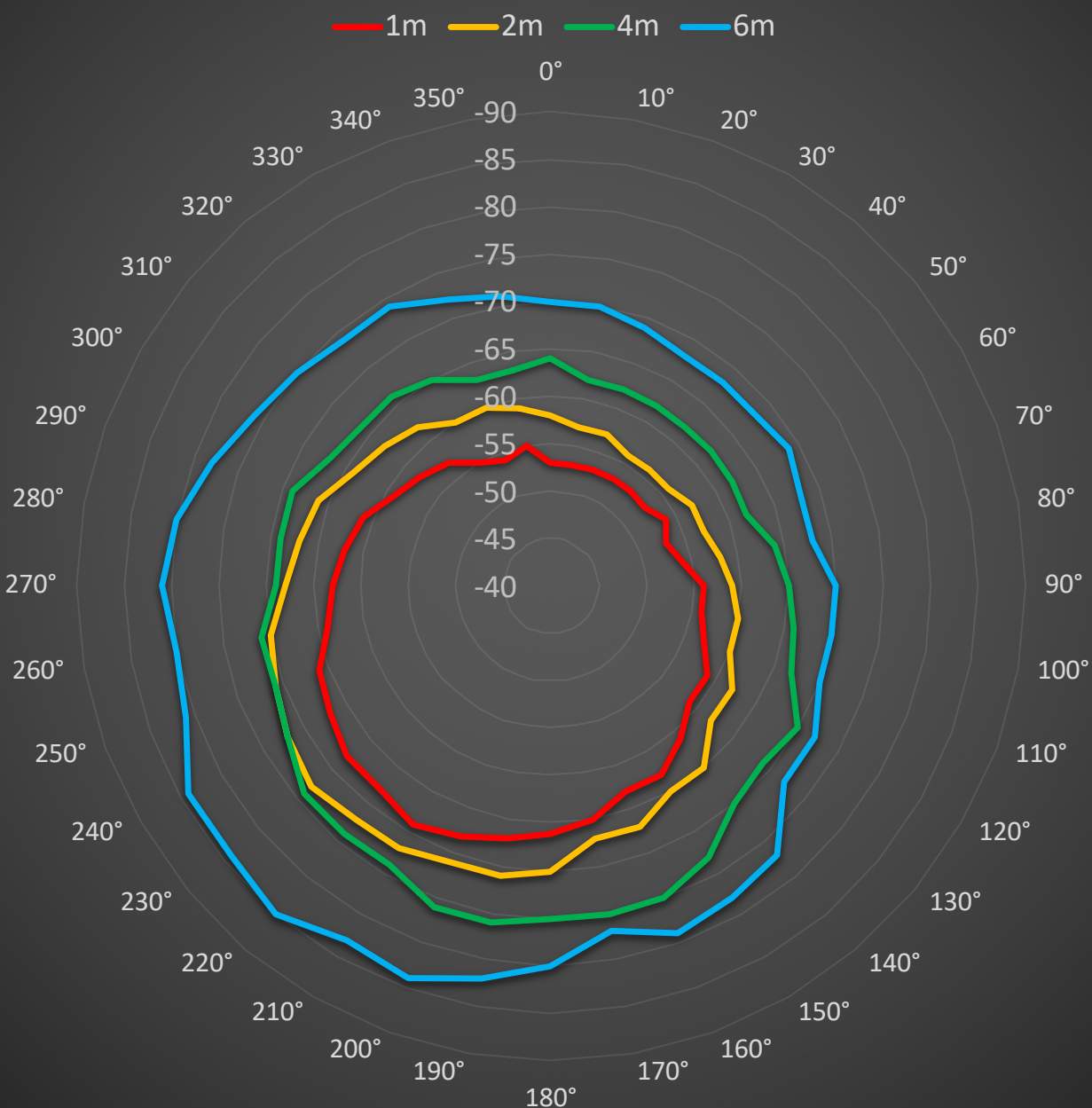**The RRSI is measured in dB across each of the 3 axis**
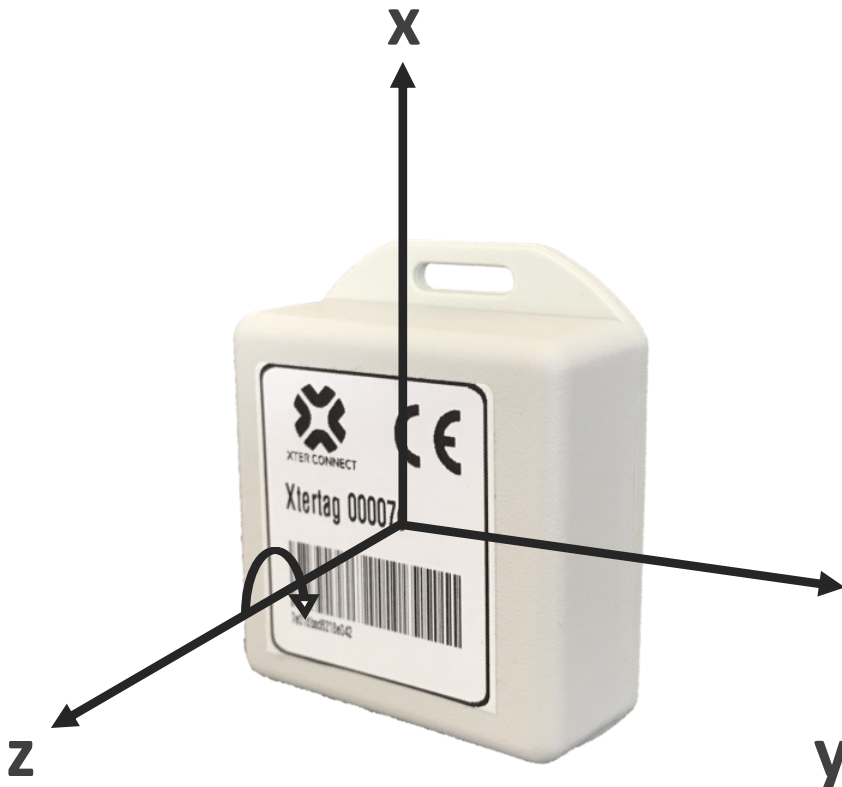
Bluetooth X-Axis Performance

X axis measured rssi in db

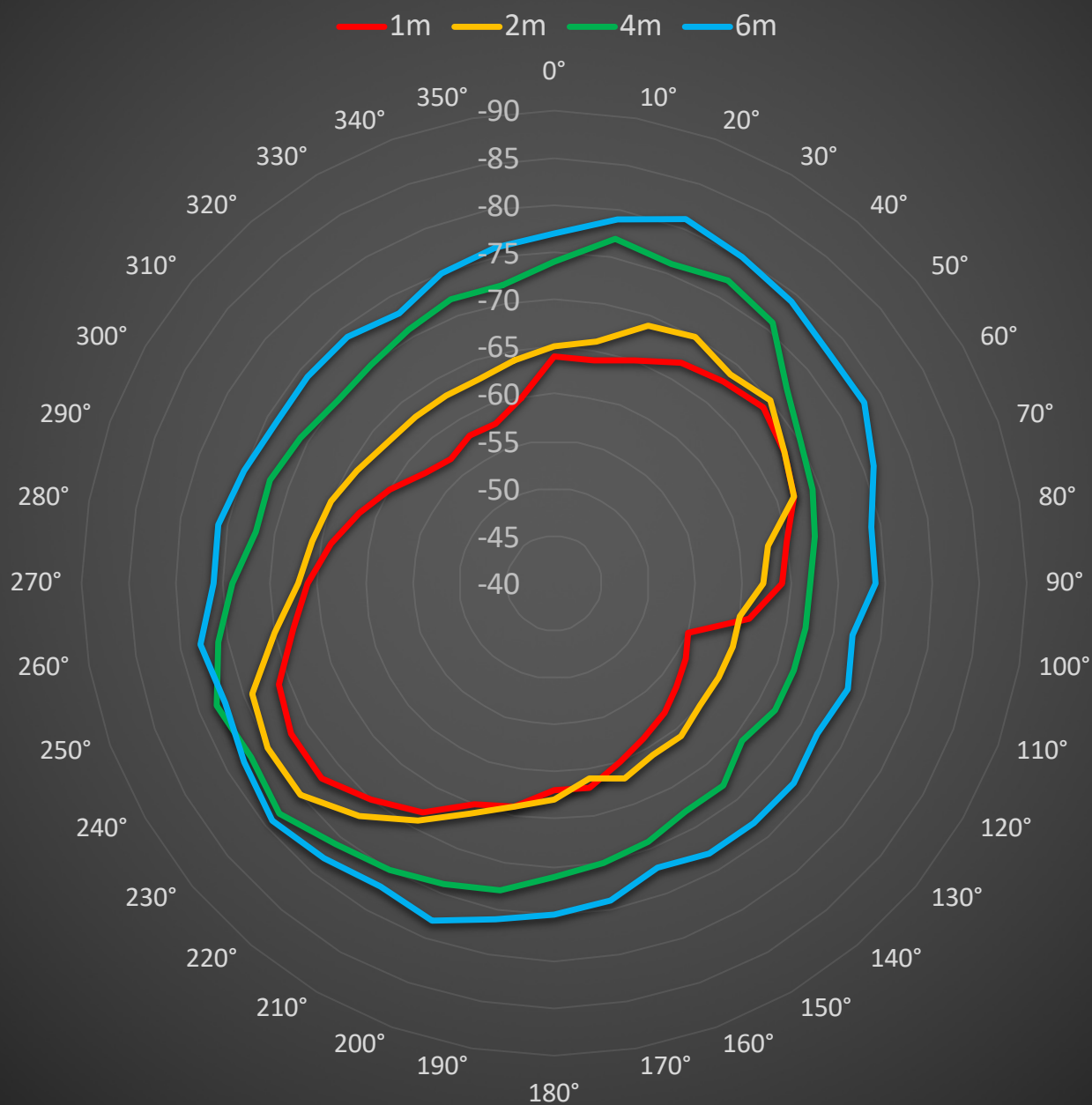Legend: 0,5 m — 1m — 2m — 4m — 6m
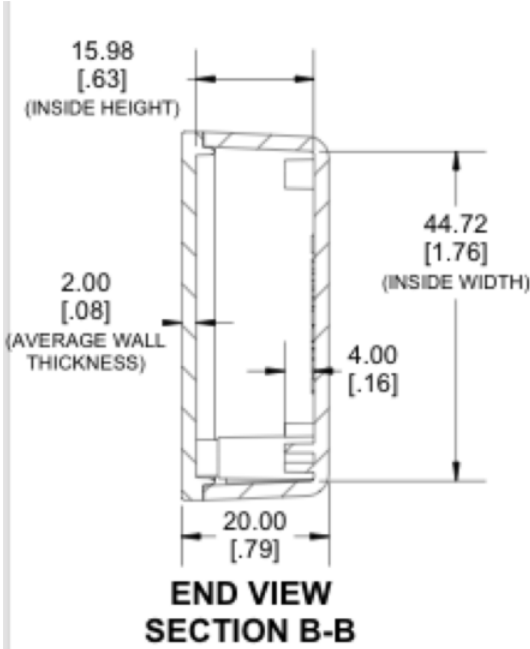
Bluetooth Y-Axis Performance
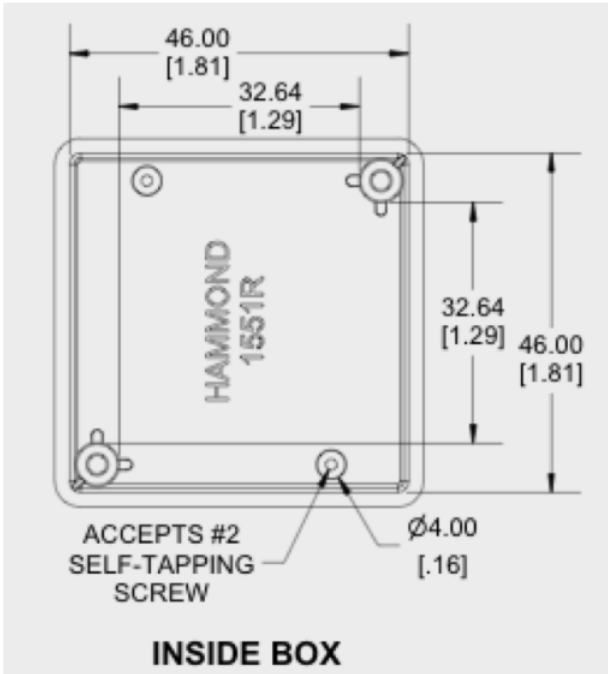

Y axis measured rssi in db
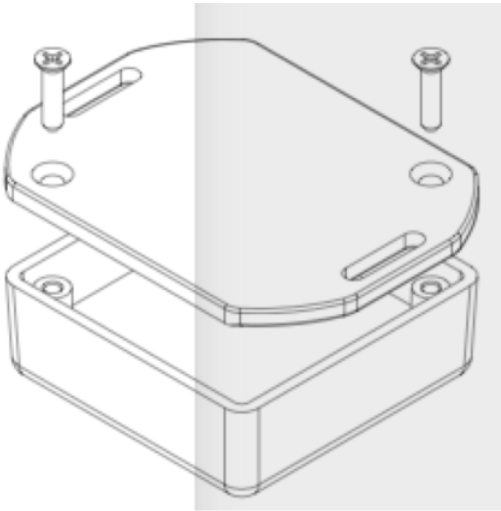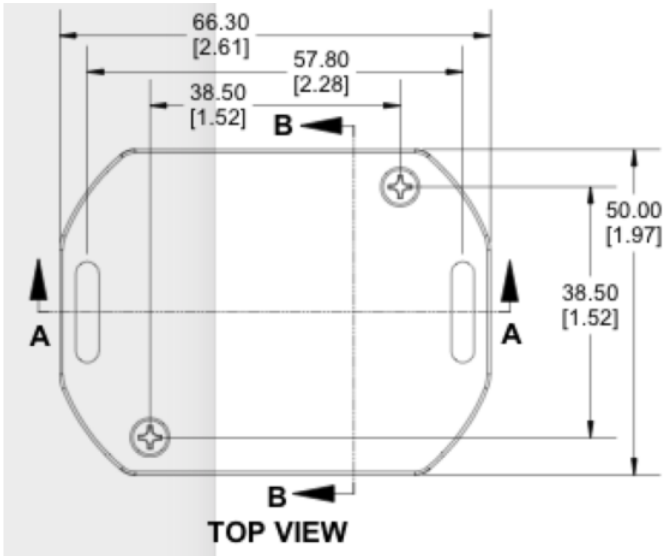
Bluetooth Z-Axis Performance

Z axis measured rssi in db

Device Design Overview

Compact Design
Durable polycarbonate Casing
W 6.6cm x D 5cm x H 1.7cm

TOP VIEW

66.30 [2.61]
57.80 [2.28]
38.50 [1.52]
B
50.00 [1.97]
38.50 [1.52]
A
A
B

INSIDE BOX

46.00 [1.81]
32.64 [1.29]
HAMMOND 1551R
32.64 [1.29]
46.00 [1.81]
ACCEPTS #2 SELF-TAPPING SCREW
Ø4.00 [.16]

END VIEW SECTION B-B

15.98 [.63] (INSIDE HEIGHT)
2.00 [.08] (AVERAGE WALL THICKNESS)
44.72 [1.76] (INSIDE WIDTH)
4.00 [.16]
20.00 [.79]

Device Design Overview

SIDE VIEW
SECTION A-A

4.50 [.18]
12.00 [.47]
17.00 [.67]
1.50 [.06]
44.72 [1.76]
(INSIDE LENGTH)

INSIDE LID

43.80 [1.72]
Ø3.50 [.14]
Ø5.00 [.20]
33.50 [1.32]
43.73 [1.72]
33.50 [1.32]
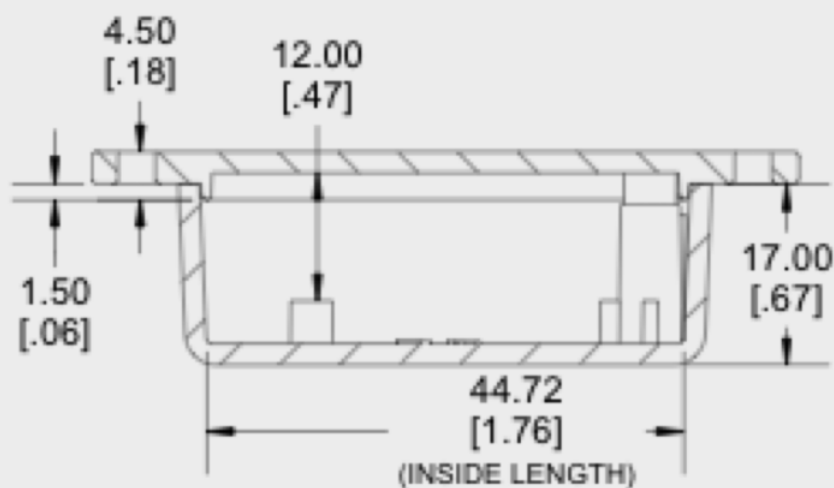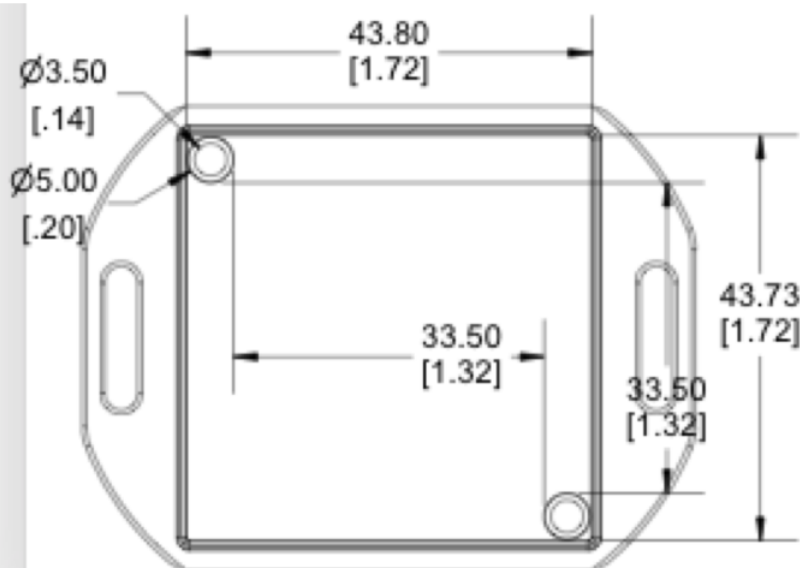
Module Architecture Overview

SV1   8

1

U1
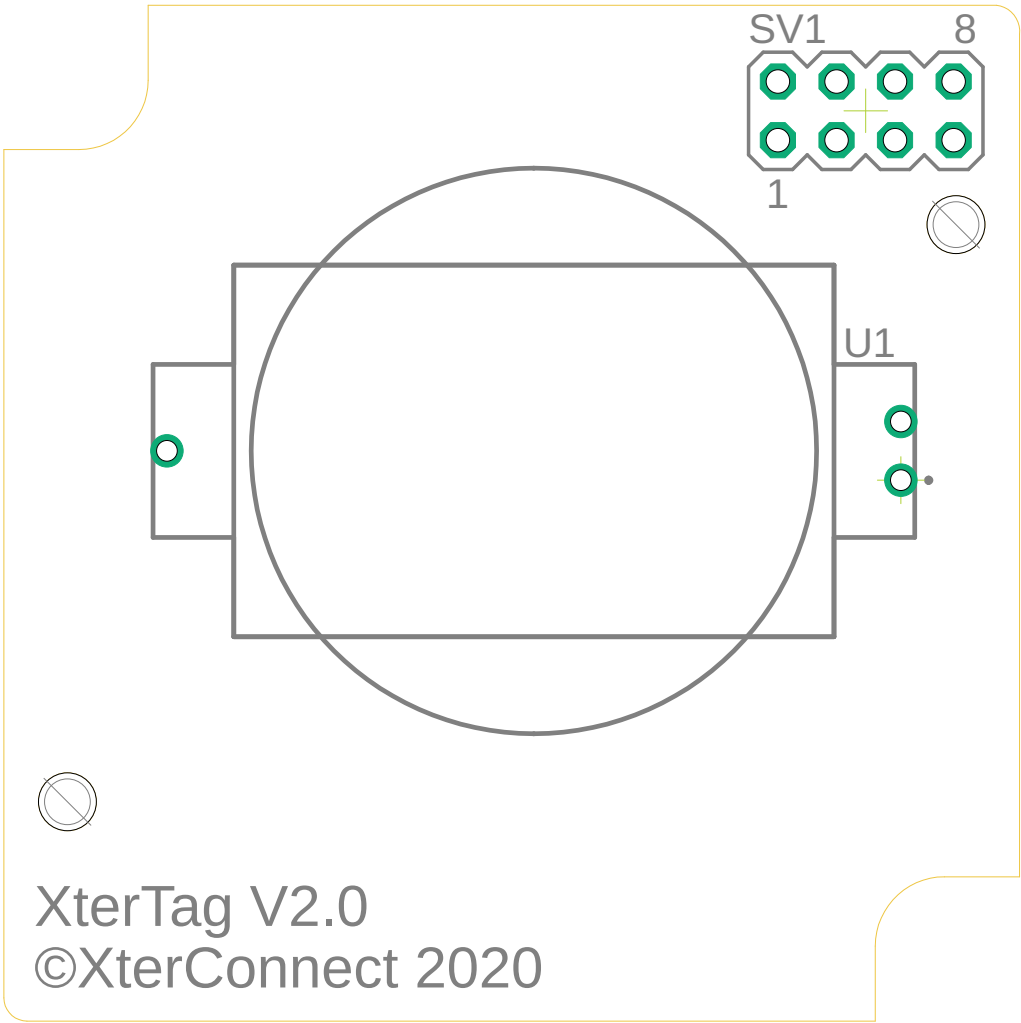
XterTag V2.0
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LoRaWAN™

Bluetooth™

Quick Start Guide

Before the Xter-Tag device can be visible on the network, ready for use or re-configuration, it need to be activated as follows.

1. Unscrew the 2 screws holding the backplate in place.
2. Insert a Renata CR2477 3V battery into the battery holder/clip (ensuring the + sign is pointing upwards).
3. The device will beep to confirm its activation (Unless the beep option has been disabled through the system).
4. Close backplate and 2 screws.
5. The device is now ready to connect on the network

Please note the device activation can take up to 3 minutes before it can be seen on the network
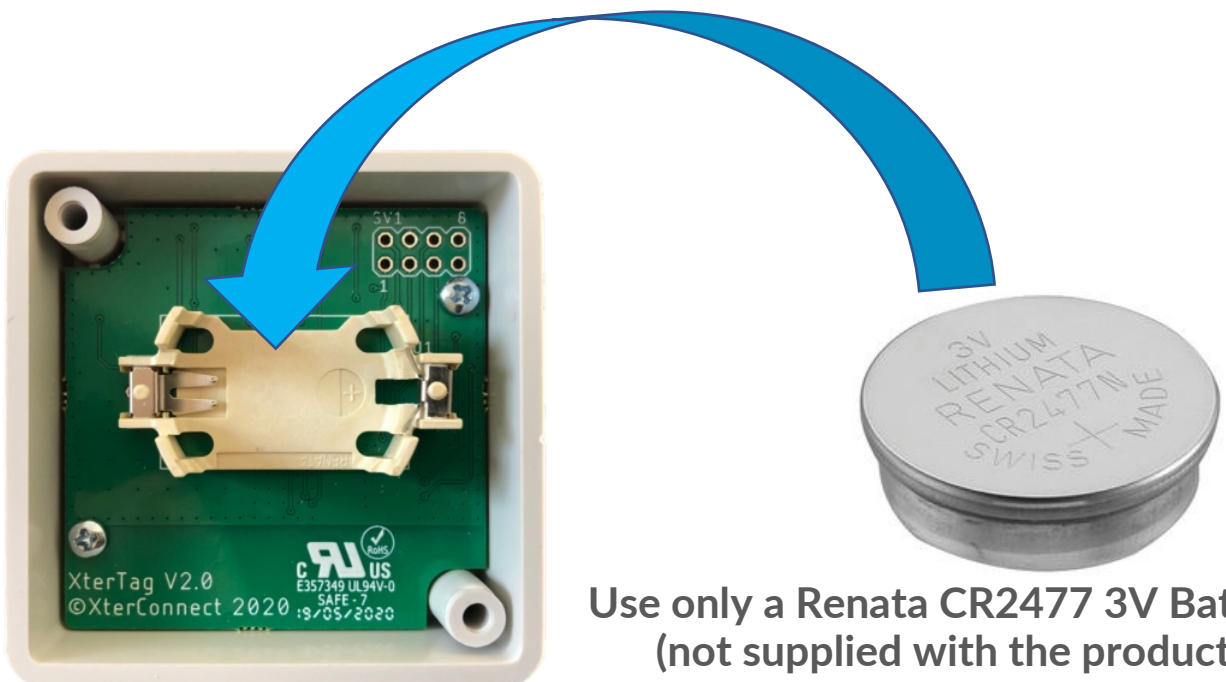
**Use only a Renata CR2477 3V Battery
(not supplied with the product)**

Device Referencing

Europe

Xter-Tag V2.0-EU : Europe Variant / 863-870 MHz / 14 dBm

GTIN: 3770017094008

United States

Xter-Tag V2.0-US : USA Variant / 902-928 MHz / 22 dBm

GTIN: 3770017094015

Asia

Xter-Tag V2.0-AS : Asia Variant / 920-923 MHz / 14 dBm

GTIN: 3770017094022

Recommended Accessories

Badge Clips

Battery

1 x RENATA CR2477N (not supplied with Product)