Explore the next sense

CA122 - Casing for XM122 IoT Module
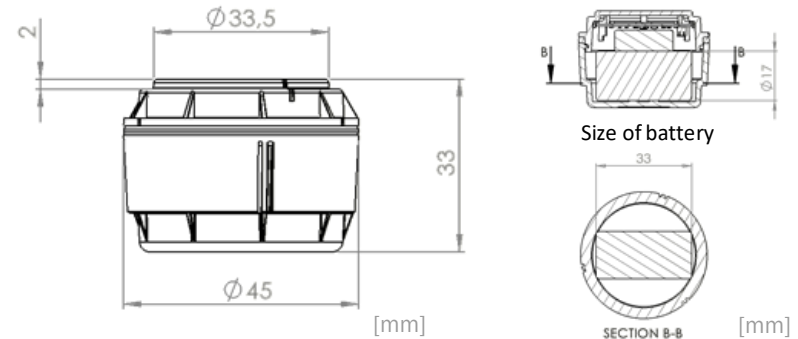# - Product Brief

March 2023

CA122-FL Casing with flat lid
## - Specifications

- The IoT Module XM122 casing supports:

  ➢ IoT Module XM122 with XA122 coin cell battery board

  ➢ IoT Module XM122 with dedicated battery E.g. ER-17335

    ➢ Note that battery connector needs to be mounted on XM122.

- Material: PC(Polycarbonat)/ABS(Akrylnitril-Butadien-Styren) mixture (black color)

- Resistant to ethanol, acetone, gasolin and most oils

- Temperature range: -40°C - +85°C

- IP66 water proof

- Parts included:

  1. Bottom part - Casing

  2. Top part – Flat lid

  3. O-ring

1. Bottom part - Casing

2. Top part - Flat lid

1. O-ring

Size of battery

CA122-FZP - Casing with FZP lens

- Specifications

- The IoT Module XM122 casing supports:

    - IoT Module XM122 with XA122 coin cell battery board

    - IoT Module XM122 with dedicated battery E.g. ER-17335

        - Note that battery connector needs to be mounted on XM122.

- Material: PC(Polycarbonat)/ABS(Akrylnitril-Butadien-Styren) mixture (grey color)

- Resistant to ethanol, acetone, gasolin and most oils

- Temperature range: -40℃ - +85℃

- IP66 water proof

- Parts included:

    1. Top part – FZP lens lid

    2. Bottom part - Casing

    3. O-ring

1. Top part
- FZP lens lid

2. Bottom part
- Casing

3. O-ring

Size of battery

SECTION B-B

[mm]
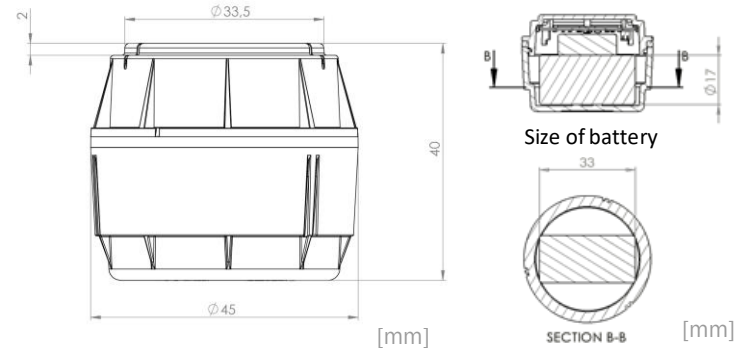
CA122 – Assembly guideline

1. Place the XM122 against its support heels in the flat lid with the XM122 top side (radar) facing the lid. Note that the card can only be placed in one position.

2. The XM122 board needs to be secured against its support heels with pad(s) placed in-between the XM122 board and battery. This is to secure that the distance between XM122 and the lid is correct.

   - Note: When using XA122, pad must be placed in-between the XM122 board and the XA122 board.

3. Place the O-ring and tighten the casing.

   Example of pads:
   - *CF-47EG 1.0 disk pad*
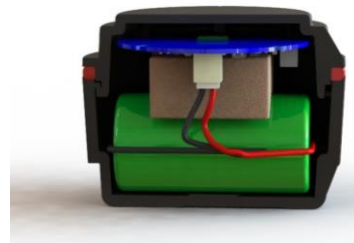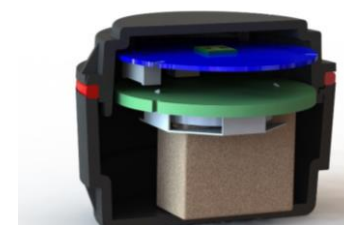   - *CF-45EG/PSA 0.5 disk pad*

1. O-ring

2. Top part - FZP lens lid

3. Bottom part - Casing

XM122 with 2100mA battery (E.g. ER-17335). Use pad between card and battery to secure the distance from radar sensor to casing.

XM122 with XA122. Use pads to secure the distance from radar sensor to casing. Note that pad needs to be placed as well between the XM122 & XA122.

CA122-F performance table with FZP lens

Acconeer has verified the FZP lens lid.
The expected performance can be viewed in the below table:

Lens	Max RLG[1] (dB)	RLGHPBW-E (degree)	RLGHPBW-H (degree)
FZP lens lid	13.2+/-1.0	11.9+/-1.3	9.5+/-0.9

[1]Note that the maximum RLG is relative to the free-space boresight scenario.
RLGHPBW = median +/- 2 standard deviation over measured devices
RLGHPBW measured setup tolerance = +/- 2 degrees