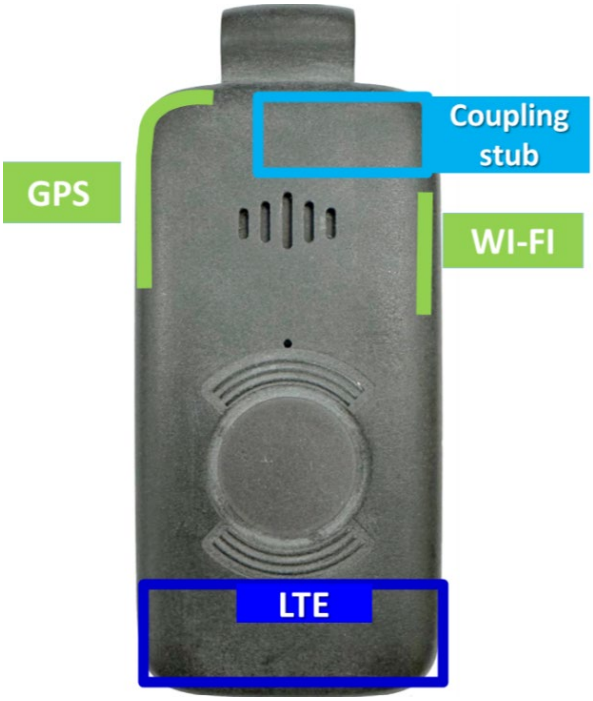
1. Product Description

Platypus is a CAT-1 LTE mobile medical alert (mPERS) pendant worn on a lanyard around the neck and hangs on the chest. With people fall detection, GPS, WiFi (Rx Only) and OTDOA location services the device frees users to live independently while having access to emergency help at the press of a button. Platypus is scheduled for certification on AT&T and Verizon networks. If the SOS button is pressed or a people fall is detected, across the U.S.

Platypus connects users to emergency care operators at a central station by two-way HD voice. In addition to low battery and power off reports, the device sends a daily status report to the IOT platform to assure dealers the device is functioning properly.



Front Surface

Rear Surface

4. User using VoIP Scenario

When using the device, pressing the SOS button to activate the VoIP call. After a short delay, the user will hear a voice message and then tones or ringing to successfully reaches to the alert service provider. The device has integrated microphones and speakers for communication. The user should hold the device near to the mouth for speaking as below picture.

The voice communication of device is when the user needs emergency dispatch and then pressing the SOS button to get emergency assistance, due to the size of the device is small that there are limitation of the microphone and speaker performance, therefore in normal use, the user should hold the device close to the mouth to be able to talk to the microphone and hear clear sound from speaker for emergency call use. The devices is resting on the chest of the user for voice communication is not expected operations, due to human body may block the voice output and receive, and couldn't pick up good voice quality.

5. For the LTE Data mode scenario

In normal use, the pendant is worn on a lanyard around the neck and hangs on the chest. The device wakes up every 24 hours to report its status by LTE data mode transmission.

6. LTE Data Transmission Analysis

This section shows the time-based LTE transmission plots for registration, data connection, socket open, 281-byte data message transmission, about 30-second in paging and socket close.

Calculations for Upper Bound Transmission Duty Factor:

Device boot cycle T1	Attach base station T2	Device enter Idle T3	Open data Socket T4	Transmission data T5	Device in paging T6	Device power Down T7
18.33 s	2.84 s	6.27 s	3.07 s	0.2s	29.44 s	15.3

Total transaction time in = T1+T2+T3+T4+T5+T6+T7 = 75.45 sec

Radio activity time = T2+T4+T5 = 6.11 sec

Ratio of Radio activity time to Total transaction time

(Duty Factor) = (T2+T4+T5) / (T1+T2+T3+T4+T5+T6+T7) = 0.081