

# Mobilogix

## ATD500S

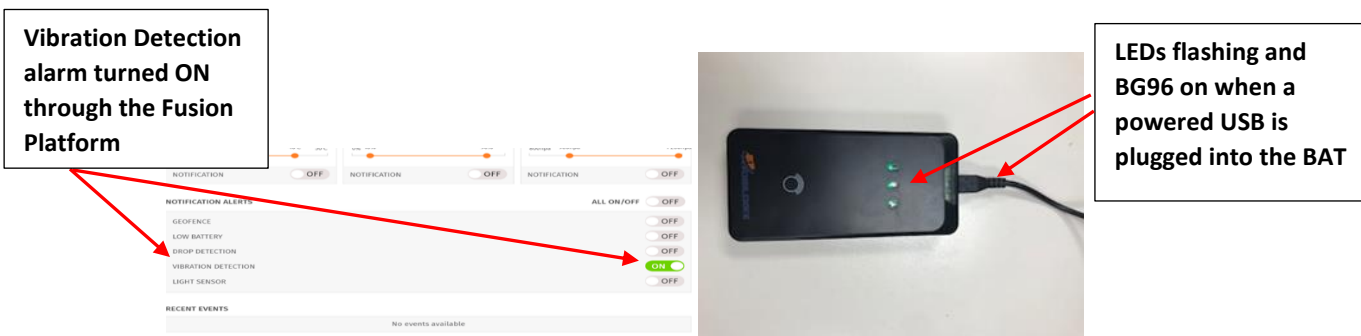
### User Guide

#### How to turn the BAT on

- If the battery is not dead, the BAT device will always be on and transmitting according to current firmware intervals.

#### Current firmware summary V2.0.0.B406

- The current firmware takes a reading of all the sensors and then makes a cellular broadcast to the fusion platform once every 12 hours which reports Sensor and location data.
- If you choose to set the Vibration Detection alarm on the fusion platform. Then the device will switch to a 5-minute reporting mode. every time the BAT is moved. It will stay in this mode if the device is not moved for another 5 minutes and then switch back to the 12 -hour mode.
- When the Mirco-B USB is plugged in will trigger than BG96 to wake up and flash LED indicators. While the USB is plugged in the device will not report correctly. Plugging the USB should only be used to charge device or for the user to debug or change BG96 settings Via AT commands. See page 8 for Quectel drivers.



#### Charging the BAT- To get a full charge look at the color of the power LED and charge accordingly

**Note:** These numbers are based on a 500ma source

- If the power LED is green when plugged in, then charge the device for 2 hours and 15 minutes.
- If the power LED is yellow when plugged in, then charge the device for 3 hours.
- If the power LED is red when plugged in, then charge the device for 3 hours and 45 minutes.

### LED Indicators

#### Power LED:

Cycles through red, yellow, green upon startup

After startup it will blink 1 of 3 colors which represents approximate battery life

Green.....40%-100%

Yellow.....20%-40%

#### Data LED:

Slow, short blinks..... Trying to register on network

Slow, Long blinks.....Registered and idle

Fast blinks.....Data transfer in progress

#### GNSS LED:

Blinking.....Acquiring location

Solid.....Location acquired





## Device Assembly

2. Place PCB with sim card holder facing up. And USB in enclosure opening.

1. Place clear plastic lens in enclosure hole.



3. Place battery down as shown.

4. Place double sided tape facing up.



5. Place back on.

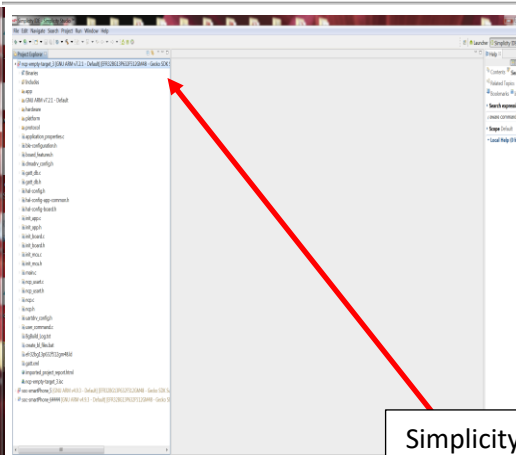
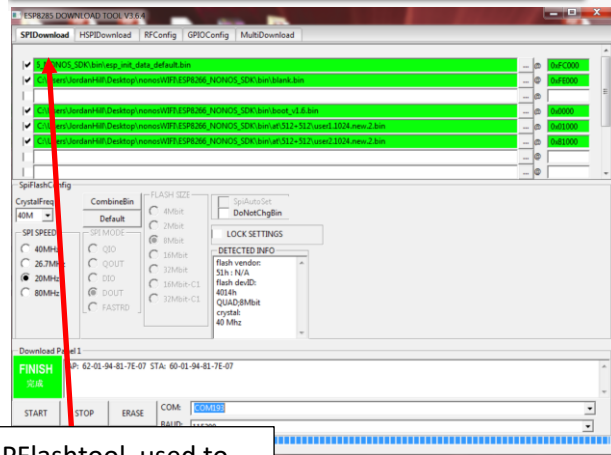
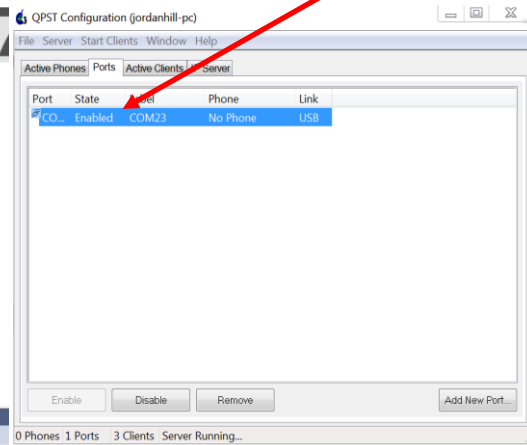
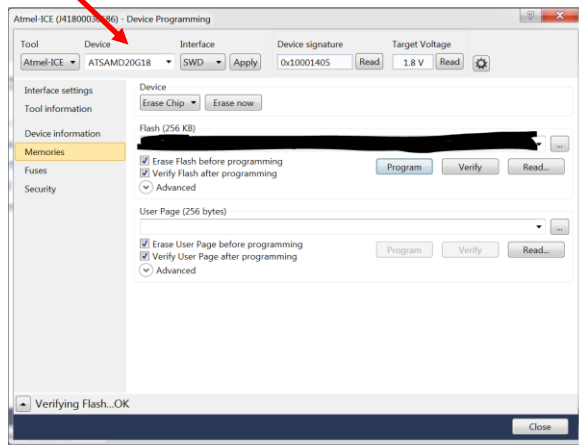
**Programming Fixture**



Atmel Studio, used to program the SAMD20.

QPST, used to program the BG96.

**Device programming Applications**



ESPFlashtool, used to program the Esp8285.

Simplicity Studio, used to program the BGM13P.

### FCC Interference Statement (Part 15.105 (b))

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

### FCC Part 15 Clause 15.21

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Part 15.19(a) [interference compliance statement], unless the following statement is already provided on the device label

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## ISED RSS-Gen Notice

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'encompromettre le fonctionnement.

## FCC RF Exposure Guidance Statement

In order to comply with FCC/ISED RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.

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Afin de se conformer aux exigences d'exposition RF FCC / ISED, cet appareil doit être installé pour fournir au moins 20 cm de séparation du corps humain en tout temps.

## Key Hardware Components and Specifications

Hardware Components and Specifications	
Component/Spec	Description
Quectel BG96-G modem	<ul style="list-style-type: none"> <li>• Qualcomm chipset</li> <li>• LTE CAT M1</li> <li>• 3GPP Rel. 11</li> <li>• FOTA</li> <li>• Embedded GPS/GNSS</li> </ul>
Antennas	Embedded Cellular/GNSS/Bluetooth/WiFi receiver only
SIM card slot	3FF Verizon SIM
Power ON/OFF	Powered by Lithium Polymer battery
Battery	Rechargeable Lithium Polymer <ul style="list-style-type: none"> <li>• 3.7V</li> <li>• 1700mAh</li> </ul>
Charging	Internal battery will be charged through AC plague in or 5volt USB.
Operating temperature	-20°C to +85°C
Dimensions	121.50 x 58 x 16.72mm
Certifications	FCC/IC/Verizon