

# astra telematics

## AT500 Mini Asset Tracking Device



[ACTUAL SIZE]



Low power consumption



Internal 2200mAh battery



IP68 waterproof



Qi v1.2 wireless charging



microSIM



GSM / GPRS 5-BAND\*



GPS, GLONASS, GALILEO & BeiDou



Internal antennas



FOTA  
Firmware update  
Over-the-air



5 year warranty



MEMS  
accelerometer



Autonomous  
operation  
4 months



SDK  
available



Magnetic mount

\*GPRS + LTE Cat M1 version will be available in Q2 2020

## Tech Spec

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### GSM/GPRS Communication

**Communications Module:** Quectel M66FA (GPRS + LTE Cat M1 option due in 2020)

**GSM/GPRS Frequency Bands:** 850/900/1800/1900 MHz

**GSM Antenna:** Internal PIFA PCB trace

**Data Transfer Modes:** GPRS (TCP or UDP)

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### GNSS Location

**GPS Antenna:** Internal 15 x 15 x 4mm ceramic patch

**GPS Receiver:** ublox SAM-M8Q

**L1 Receiver:** 72 channels

**Position Accuracy:** 2.5m CEP

**Receiver Sensitivity:** -165dBm (GPS + GLONASS, tracking & navigation)

**TTFF:** Cold start 26 sec  
Hot start 1 sec

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### Power

**Charging:** Qi v1.2 compliant wireless charging

**Internal Battery:** 3.7V, 2200mAh

**Battery Life:** xx hours continuous operation  
xx days operation in daily update mode

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### Features

**Configuration:** Astra Generic Configuration commands over SMS / TCP

**Firmware update:** Supports Firmware Update Over-The-Air (FOTA)

**Memory:** Total 1024k on-board non-volatile flash memory

**Report storage:** 8000 reports

**Communication Protocol:** Astra Telematics Modular Protocol X  
TCP / UDP sockets with optional MQTT authentication / encryption

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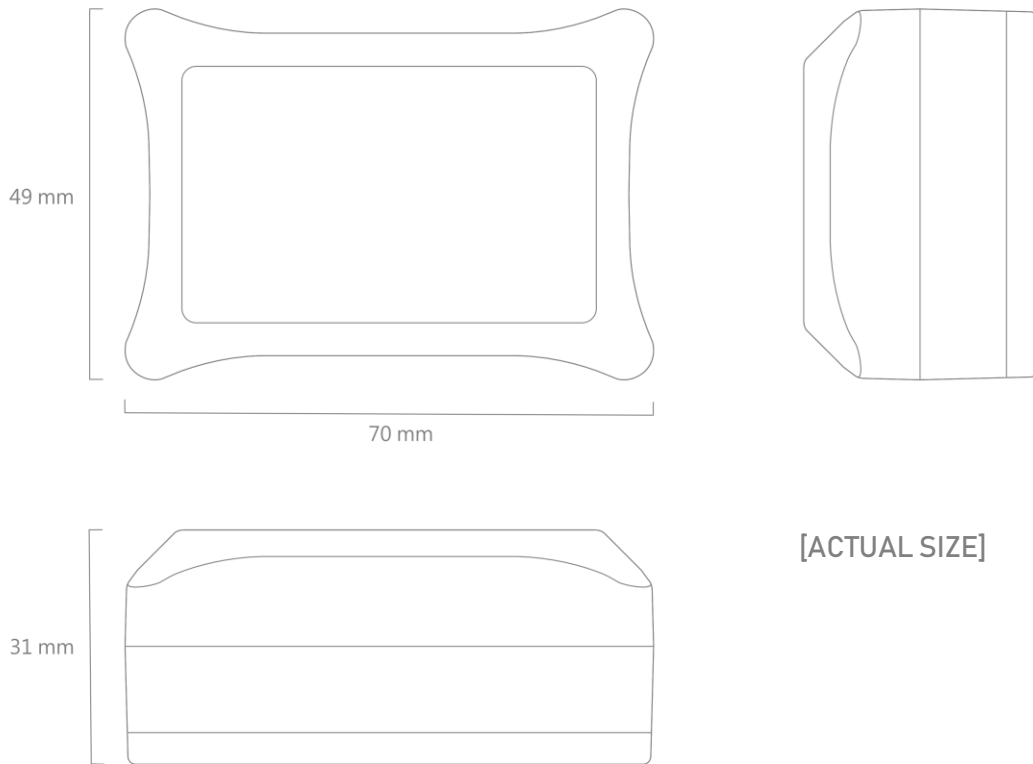
### INTERCONNECT

**SIM:** micro SIM (3FF), push-push style

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**Dimensions:** 70 x 49 x 31 mm 80g

**Weight:** 80g



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**ENVIRONMENTAL**

**Temperature:**  
**Operating** -20 to +85°C (note: battery charging is suspended at higher temps)  
**Storage** -30 to +85°C  
**Ingress Protection:** IP68

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**Product Approvals:** TBA

**Note:** Specifications may change without notice.

**PRELIMINARY – October 2019**