

AT300 Plant & Machinery Tracking Device



[ACTUAL SIZE]



Low power consumption



Internal 900mAh battery



IP68 waterproof



up to 90V operation



Dual SIM
4FF nano +
MFF2 chip



4G LTE Cat 1 bis
+ 2G fallback



6-Axis IMU



Internal antennas



External GNSS
antenna (option)



BLE 4.2
(option)



GPS, GALILEO,
GLONASS &
BeiDou



CANbus



5 year warranty



FOTA
Firmware update
Over-the-Air



2 digital inputs
2 digital outputs



Dallas 1-wire

Technical Specifications

LTE Global Communication

Communications Module:	Quectel EG916N-EA
LTE FDD Frequency Bands:	B1/B3/B5/B7/B8/B20/B28
LTE TDD Frequency Bands:	B38/B40/B41
GSM Bands:	B3/B8
LTE Antenna:	Ceramic
Data Transfer Modes:	TCP / MQTT

GNSS Location

GNSS Antenna:	Internal 15 x 15 x 4mm ceramic patch External active antenna (option) via FAKRA connector
GNSS Receiver:	ublox MIA-M10Q
GNSS Chipset:	ublox series 10
Concurrent GNSS Receiver:	GPS L1 C/A: 1574.397–1576.443 MHz GALILEO E1: 1563.440–1587.696 MHz GLONASS L1: 1597.781–1605.656 MHz BeiDou B1 C/A: 1559.052–1563.144 MHz
Position Accuracy:	1.5m CEP
Receiver Sensitivity:	-167dBm (tracking & navigation)
TTF: Cold start	27 sec (average) @ -130 dBm
Hot start	1 sec (average) @ -130 dBm

BLE 4.2 (option)

BLE Module:	Silicon Labs BGM123
TX Power:	+3dBm
Sensitivity:	-90dBm
Bluetooth Compliance:	4.2 and earlier

Power

External Voltage Source:	5 – 90 VDC
Internal Battery:	3.7V, 1000mAh, lithium-polymer
Battery Life:	18 hours continuous operation 24 days operation in low-power mode @ hourly update 60 days operation in low-power mode @ daily update
Current Consumption, max:	400mA @ 13.8 VDC (battery charging at max. rate)
Current consumption, average:	35mA @ 13.8 VDC 25mA @ 27.6 VDC
Current consumption, sleep:	< 100uA

Features

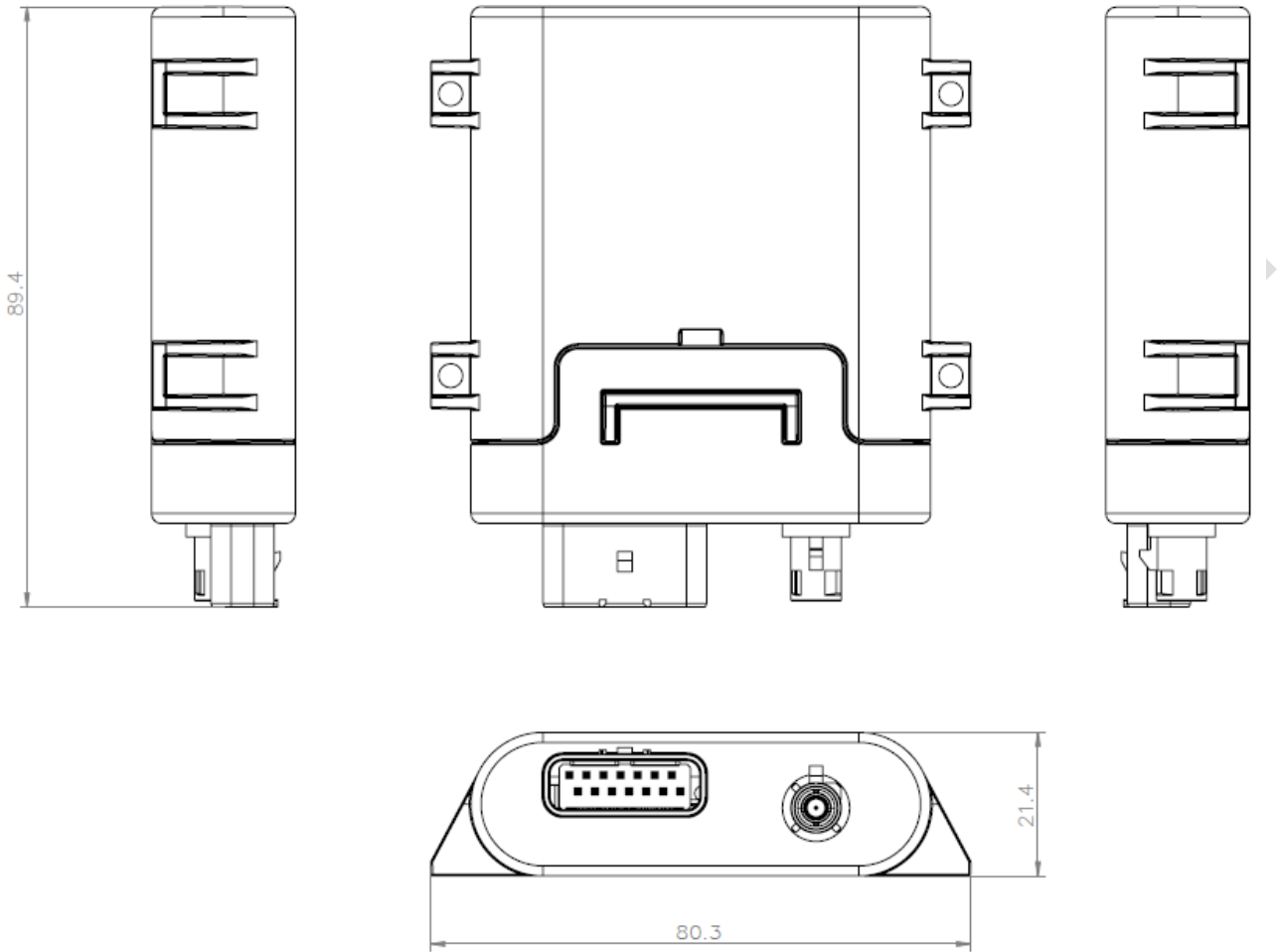
Configuration:	Astra Generic Configuration commands over SMS / TCP
Firmware update:	Supports Firmware Update Over-The-Air (FOTA)
Memory:	Total 1024k on-board non-volatile flash memory
Report storage:	6000 reports
Communication Protocol:	Astra Telematics Modular Protocol X via TCP socket

Interconnections

POWER & DATA: (9-way DB9 male)	2 digital pull-up inputs 2 digital outputs, 60V, 0.5A Maximum (MOSFET open drain) CANbus 1-wire (dallas) 1 RS232 serial port
Dual SIM:	nano SIM (4FF), push-push style + MFF2 chip SIM
External GNSS Antenna:	FAKRA (sealed)

Weight
Dimensions

100g
90 x 80 x 21 mm



ENVIRONMENTAL

Temperature:
Operating
Storage

-20 to +85°C
-30 to +85°C

(note: battery charging is suspended at extremes of temperature)

Product Approvals:

EC Reg.10, UKCA

Note: Specifications may change without notice.