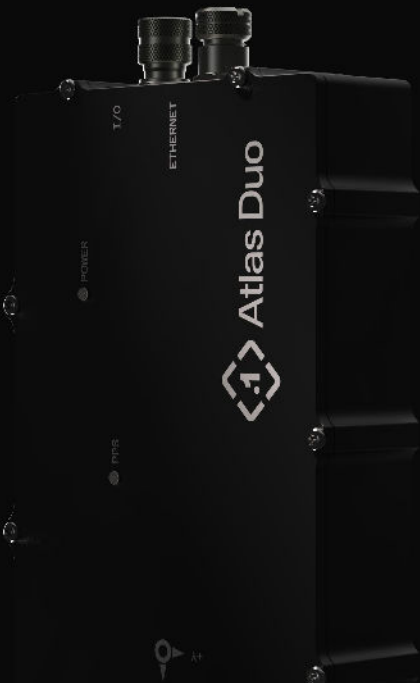


Atlas Duo INS

Point One Navigation's Atlas Duo INS is a standalone Inertial navigation reference system delivering our highest precision positioning with dual antennas for static heading and a weather-proof rugged chassis for harsh outdoor environments.



FEATURES

Multifrequency Dual Antenna
High Precision GNSS Receiver
with dual antenna inputs

64-bit Low-Power ARM Dual
Processor Architecture

Configurable IO including PPS GPIO and
Gigabit Ethernet

Automotive grade (ASIL-B) IMU
with 6 Axis Gyro / Accelerometer

Multi frequency GNSS antenna
with mag-mount, RF and weather-proof
Ethernet cabling

Hosted UI and REST API control interface

100Hz Position Update Rate with
6DOF output over Ethernet

CAN and wheel encoder vehicle
odometry inputs (optional)

CNC Aluminum Chassis with weather-
proof connectors

BENEFITS

Access to Point One RTK network, the
industry's highest performance GNSS
cloud RTK correction service

Tightly coupled sensor fusion with
integrated positioning engine software to
achieve centimeter-level accuracy

IP67 rated for rugged protection from
water and dust

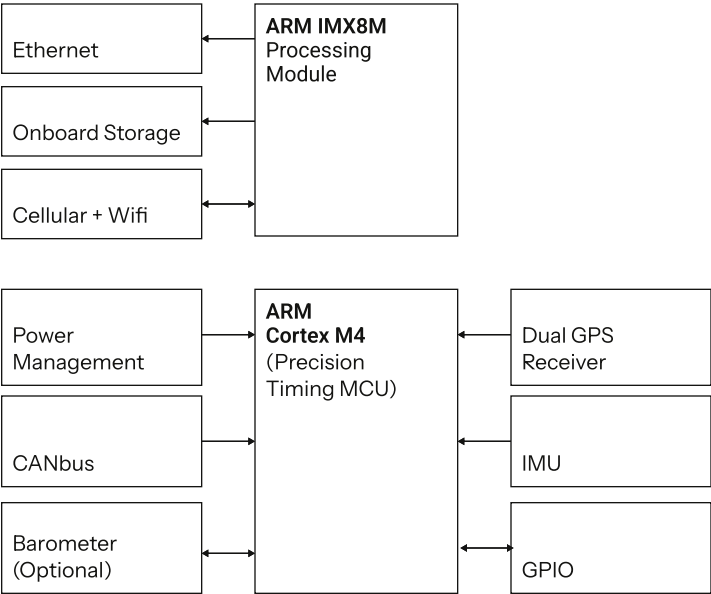
Simple plug-and-play setup with remote
access configuration, control, and data
logging

Dual Static Heading for automatic
calibration and continuous accuracy

Schematics available for rapid integration
into customer platforms

ELECTRICAL

Input Voltage	5 – 48 VDC
Power (Typical)	3 Watts (non cellular)
Connections	Power, Ethernet, CAN, GPIO GPS RF (2x), Cellular (2x), Wifi
Configurable GPIO	Programmable time locked pulse generator (2 channels) or singular wheel tick input



PERFORMANCE

Open Sky	<10 cm, 1-sigma accuracy; 1 m PL, TIR = 10-7, availability = 99%
Urban	<30 cm, 1-sigma accuracy; 3 m PL, TIR = 10-7, availability = 99%

MECHANICAL

Dimensions	222 mm x 124 mm x 30mm
Enclosure	IP67
Weight	2.3 lbs
Storage	-40° C to +85° C (95% RH)
Operation	0° C to + 60° C (90% RH)
Vibration	TBD
Supports	1000BASE-T (Gigabit Ethernet) and 100BASE-TX

SUPPORT

GitHub	github.com/PointOneNav
Documents	pointonenav.com/docs/

NAVIGATION SPEC

Signal Tracking (Per Antenna)
GPS L1C/A, GLONASS G1, BeiDou B1-I, B1-C Galileo E1
GPS L2P codeless, L2C, GLONASS G2, BeiDou B2-
GPS L5, BeiDou B2a, Galileo E5a, BeiDou B3, Navic L5
QZSS, EGNOS, WAAS, GAGAN, MSAS, SDCM
Inertial
+/- 125 degrees/sec, +/- 6 g
Outputs
NMEA 0183 over Ethernet, Point One Fusion Engine open source library
Position Update 100 Hz
Dead Reckoning < 1.5 meters error over 10 minutes*
Static Heading 0.15° @ 1m, 0.03° @ 5m**

* Performance measured as typical with in-vehicle calibration and vehicle wheel speeds
** Specification is in open sky, RMS values independent of antenna/body calibration