

STELLAR-40 LAND / AIR

Tactical-Grade Inertial Navigation System

NEW

MADE IN FRANCE



High-Performance Navigation Solution Electronic Warfare Ready



ITAR free



2-year
Warranty



Stellar-40 combines a tactical-grade IMU with a jamming and spoofing resilient GNSS receiver powered by the SAF2Nav engine, all integrated in a robust mechanical design with triple-layer vibration protection to ensure reliable positioning in the toughest environments.



3-Stage mechanical
isolation



Autonomous navigation in
GNSS-denied environment



Advanced Jamming & Spoofing
detection & mitigation



Multi-sensor
fusion

**Resilient navigation
designed for scalability**



CRPA
compatibility

ARDUPILOT
ROS2 **PX4**

Compatible drivers



Embedded vibration
spectral analysis



Built-in
magnetometers



SBG SYSTEMS

Motion & Navigation
you can trust

ISO 9001
BUREAU VERITAS
Certification



SYSTEM PERFORMANCE

Correction	Single point	RTK
Roll / Pitch	0.03°	0.015°
Heading	0.08°	0.05°
Position	1.2 m	1 cm + 1 ppm

LONG GNSS OUTAGE PERFORMANCE⁽¹⁾

Application	Land	Airborne
Position accuracy	0.2% DT ⁽²⁾	1.0% DT ⁽²⁾
Clock drift	1 ppm	1 ppm

⁽¹⁾ With external aiding inputs ⁽²⁾ Distance travelled

INTERFACES

Protocols	NMEA, sbgECom (binary), REST API, third party protocols
Output rate	200 Hz (IMU & INS)
Datalogger	8 GB or 48 h @ 200 Hz
Main interface	1x Ethernet full duplex - Web interface, FTP, PTP / NTP, NTRIP
Other interfaces	Serial (RS232/RS422), CAN 2.0 A/B, sync I/O (RS232 & TTL)
Connectors	2x Micro-D 15 (I/O) 2x SMA connectors (antennas)

QUALIFICATIONS

Vibrations & shocks	MIL-STD-810H
EMC	MIL-STD-461 & MIL-STD-1275

GNSS *Septentrio Mosaic*

Frequencies	Full band, all signals in view tracking
Constellations	GPS / Beidou / GLONASS / Galileo / QZSS / NaviC
Time to first fix	< 35 s (cold start)
Jamming/Spoofing	Automatic anti-jamming & anti-spoofing detection OSNMA

OPERATING CONDITIONS

Input voltage	9 - 36 VDC
Power consumption	3 W without antennas
Operating temperature	- 40 to 71°C
IMU range	± 40 g; ± 490°/s
GNSS range	500 m/s; 80 km altitude

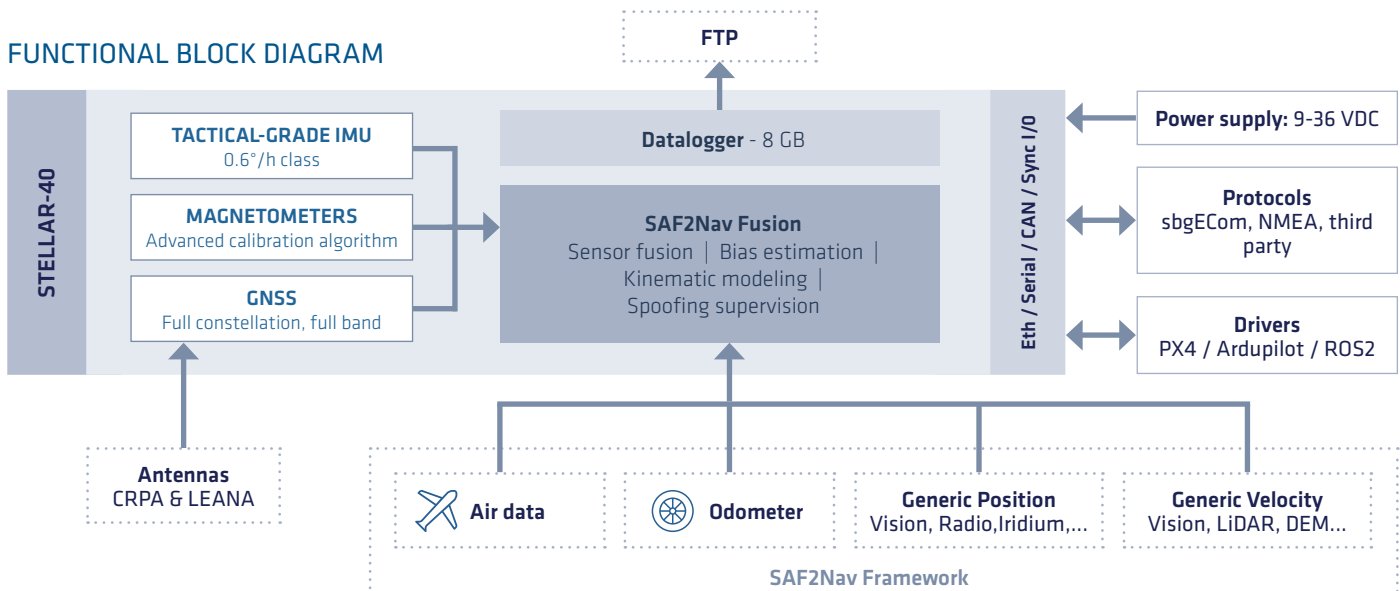
MECHANICAL SPECIFICATIONS

Weight	365 g
Dimensions (LxWxH)	107.7 x 85 x 70 mm

MECHANICAL DAMPING OPTIONS

	Rigid	Damped
IMU-level damping	✓	✓
Rugged enclosure	✓	✓
External isolation	⊗	✓
Recommended applications	General applications	High-vibration environments

FUNCTIONAL BLOCK DIAGRAM



Expert Technical Support

Lifetime Firmware Updates

2-year Warranty

