Septentrio : when it has to fly

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Sales Manager Japan & Korea

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Septentrio Introduction

UAV applications and Septentrio’s solutions

Mosaic/CLAS
Who is Septentrio?

• Independent pure play GNSS receiver manufacturer

• Focus on accurate and reliable GNSS position and timing solutions in the most demanding industrial environments

• HQ in Leuven, Belgium with offices in US, China, Australia and Japan

• Founded in 2000. Spin-off from IMEC.
ESA / Galileo
Primary contractor since 2004
Built the first Galileo receiver

IMEC
3500 researchers
#1 independent semiconductor research institute world-wide.
Founder and major partner of SSN
Application Understanding

Application Engineering Assistance

Easy-to-integrate

Reliability
Availability
Accuracy
Security

Technology
Our Products

**OEM**

OEM boards for UAV and machine control

**Integrated Receivers**

Smart antennas
Machine Control
Base station

Reference receivers for science and networks
Applications in UAV market

- AIM+
- Low pwr
- Multi Const
- Reliable
- Accurate

Mapping

Inspection

AG

septentrio


With three downward antennas,
Mapping

With improved reliability and with PPK processing, surveyors use the most modern methods for mapping and precise surveying.

Aggregates

With improved reliability quarry managers can quickly collect and process data to deliver aggregate product results for mining planning, slope stability analysis and volumetrics.
Wind turbine inspections

With improved flight stability in windy conditions and precision to avoid collision in public areas, turbine inspectors can spot millimeter-sized damage along all parts of a turbine’s propellers.

Boat inspections and onboard deliveries

With improved reliability and precision drones can avoid high costs for on-board delivery of small parcels, filled with urgent spare parts or mail.
AsteRx-m2/m2a/i - Key Features

- Best-in-class reliable and **scalable** position accuracy
- Industry-leading **ultra-low power** consumption (<1W)
- All-in-view satellite tracking: multi-constellation, multi-frequency, **100Hz** update rate.
- Easy to integrate: on-board logging, USB, 3 serial ports (PixHawk compatible), event marker for camera synchronization, 6-30V DC
- Sub-degree GNSS Heading and Pitch/Roll precision (m2a/i)
- AIM+ unique **interference** monitoring and **mitigation** system
Unique Interference monitoring/mitigation

Self-interference

- GNSS receiver **interference monitoring** technology
- Identification of self-interference issues

External interference/spoofing

- GNSS receiver passive and active **interference mitigation (AIM+)**
- Several **built-in techniques** identify spoofing
- And **compensate**: Reject, Reject, Redundancy

L1 Spoofing is easy
Meet Mosaic™

ACCURATE, RELIABLE & ROBUST GNSS
MORE COMPACT THAN EVER

mosaic
Your positioning cornerstone

septentrio.com/mosaic
31x31x4 mm

4 chips
RF(New) + ASIC + CPU + DRAM

LGA (surface mount) solderable

No compromise on functionality!

**GNSS**
All constellations, all signals
Same capabilities as m2

**Interfaces**
4 COM, USB, 3 Events, Ethernet, PPS
CLAS evaluation + comparison with RTK
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