



# GEONYX™ Family

**GNSS threats proof  
artillery pointing & positioning system /  
Inertial Navigation System (INS)**



*Geonyx™ is designed for the most demanding artillery systems such as howitzers (towed, tracked, truck-mounted), multiple rocket launchers, mortars and light guns. Thanks to its high pointing accuracy, Geonyx™ is also perfectly suited for mobile radars and forward observer systems.*

#### **Robustness and reliability**

Being hard-mounted on the weapon, Geonyx™ withstands high shocks of artillery guns, without the need of an external shock-absorbing mount. Thanks to the embedded HRG\* Crystal™, Geonyx™ is the most reliable INS on the market.

#### **Operational efficiency**

Designed for time-sensitive missions in the most constrained operational environments (jammed or denied GNSS\*), Geonyx™ provides:

- A full range of pointing accuracies from 2 mils to 0.5 mils to meet all system requirements
- Autonomous True North finding in less than 5 minutes
- On-the-move alignment without GNSS
- Autonomous navigation without GNSS
- Shoot-and-scoot capability
- Multiple Rounds Simultaneous Impact (MRSI) capability
- High positioning accuracy in the harshest conditions
- Jamming, Spoofing and Meaconing algorithms detection (NavWar Option)
- With the NavWar Option, Geonyx™ automatically stops GPS hybridization following GNSS Signal threat detection

## Technical specifications

### Optimized architecture

- Size : 205/245 x 158 x 169 mm
- Weight : 6.4 kg
- Consumption : < 17W
- Hard-mounted on guns (no external mount needed)
- Immune to magnetic stress & high vibration/shocks
- Full interchangeability with SIGMA 30 Family
- Gyro technology : HRG Crystal™

### Maintenance

- MTBF (Mean Time Between Failure) : > 100,000 hours

### Flexible Interfaces

- Embedded GNSS receiver (external GNSS possible)
- RS422
- Ethernet
- CANBUS

### Navigation standards

- Environment : MIL-STD-810
- Electrical : MIL-STD-1275
- EMC : MIL-STD-461

**Already qualified on numerous major artillery systems**

**European in-house technology**

**Subject to French export control authorization**

**ITAR Free**

**Full NAVWAR capability (jamming, spoofing and meaconing detection)**



### Performances

	GEONYX™ SP	GEONYX™ HP	GEONYX™ XP	GEONYX™ XP+	GEONYXOne
<b>Heading (RMS*) at 65° lat. (↔ seclat)</b>	2 mils (↔ 0.85 mils)	1 mils (↔ 0.42 mils)	0.9 mils (↔ 0.38 mils)	0.5 mils (↔ 0.21 mils)	4 mils (↔ 1.40 mils)
<b>Pitch &amp; Roll (RMS)</b>	0.75 mils	0.5 mils	0.35 mils	0.2 mils	1 mils
<b>Horizontal Position (CEP*)</b>	0.15% DT	0.1% DT	0.05% DT	0.04% DT	0.30% DT
<b>Vertical Position (EP*)</b>	0.15% DT	0.1% DT	0.02% DT	0.02% DT	
<b>Static alignment** time without GNSS</b>	< 5 min	< 5 min	< 5 min	< 10 min	
<b>Alignment on-the-move** without GNSS</b>	< 10 min	< 10 min	< 10 min	< 20 min	
<b>NavWar Option</b>	Available	Available	Available	Available	Available

\*INS: Inertial Navigation System / HRG: Hemispherical Resonator Gyro / GNSS: Global Navigation Satellite System / RMS: Root Mean Square / CEP: Circular Error Probable / EP: Error Probable

\*\* Time to full performance

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