ELECTRONICS & DEFENSE

ICONYX™

HRG Crystal™-based Inertial Measurement Unit (IMU) for tactical guidance and control applications

ICONYX™ is a high performance tactical-grade Inertial Measurement Unit (IMU) for guidance and control applications. ICONYX™ is designed to meet the most demanding environmental conditions with an extreme accuracy and reliability.

PROVEN TECHNOLOGY

Safran proposes an IMU based on Hemispherical Resonator Gyroscope, the HRG Crystal™. This technology is combat proven for 15 years and is extremely accurate, reliable and is capable of navigating in the most contested GNSS-denied environments.

HRG CRYSTAL™ EMBEDDED

Thanks to the HRG Crystal™, ICONYX™ surpasses the highest performances of its category while keeping the best-in-class SWaP (Size, Weight and Power) characteristics of the market.

DESCRIPTION

ICONYX™ includes 3 hemispherical resonator gyroscopes HRG Crystal™ and 3 closed-loop MEMS (Micro Electro-Mechanical Systems) accelerometers in a compact package. Both Safran's gyroscopes and Safran's accelerometers are technological breakthrough.

Safran Electronics & Defense is with you every step of the way, building in the intelligence that gives you a critical advantage in observation, decision-making and guidance.

SAFRAN

Technical Specifications

ICONYX HP-100

Optimized architecture

	WITHOUT MOUNTING RING	WITH MOUNTING RING
Size (excluding connectors)	ø 3.5 x 3.35 in (< ø 88.9 x 85.1 mm)	ø 3.7 x 3.7 in (< ø 94 x 94 mm) Ring : ø 5.0 in (ø 127 mm)
Weight	< 750g	< 950g
Consumption	+5V (<2 amps)	
Gyro technology	HRG (Hemispherical Resonator Gyroscope) Crystal™	

Interface

- RS422 serial interface

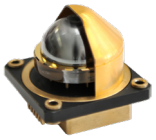
Environmental conditions

- Operating temperature : from -40°C to 85°C

100% in-house technology

Export Control

- Submitted to French military export control
- ITAR Free



HRG Crystal™

KEY CHARACTERISTICS	
Version	Iconyx HP-100
Accelerometer range	Up to 100 g
Gyro range	Up to 4,000 °/s
Gyro bias (°/h 1sigma)	0.15 (including gyro turn-on)
Gyro ARW (°/√h max)	0.001
Gyro scale factor (ppm 1sigma)	200
Accelerometer bias (µg 1sigma)	200
Accelerometer scale factor (ppm 1sigma)	200