

IGS-35x series, deeply integrated guidance family for missiles, munitions and long range strike weapons



Integrated Guidance Systems LLC, is expanding on the initial IGS-200 product offering with a new family of precision guidance products to meet the demand for smaller, more scalable systems for missiles, munitions and long range strike platforms.

The IGS-35x family of precision guidance products includes the IGS-352 and IGS-355, with either 2-channel or 5-channel anti-jam protection. With the ability to embed mission computer software, the systems are highly tailorable for broad mission applicability.

All IGS products utilize an ultra tightly coupled INS-GPS system for <5 m Circular Error Probable (CEP) GPS-aided accuracy. This highly precise and robust anti-jam (AJ) performance results in the lowest risk of collateral damage required for urban close combat situations. Furthermore, IGS products offer margin against the ever increasing and complex jamming threat utilizing inertial sensors to maintain precision accuracy in the event of loss of GPS track. Additional IGS products are in development with increasingly higher anti-jam and navigation performance in smaller packages, for missile, munitions and guided projectiles.

IGS-35x family, capabilities and features

Documentation and tools

- Complete set of user manuals
- Data collection and analysis software
- User-purchased Mindready card (for 1394b communication)

System throughput and memory for user code

- Hosts 3rd party guidance and control software
- >25% throughput + 4 Mbyte RAM, 2 Mbyte ROM

Interfaces

- 2 ports – 400 Mbps IEEE-1394b
- 1 port – RS-422 asynch
- 2 ports – RS-422 configurable as 1 SDLC and 1 asynch, or 2 asynch
- 4 discretes – LVCMOS - programmable
- Keying – via DS-101, DS-102, asynch or IEEE 1394b

Scalable, flexible features

- Up to 5-channel digital nulling anti-jam

Features

- MEMS gyro/ RBA-500 accel inertial sensor assembly
- SAASM L1/L2 all-in-view GPS (12-satellite)
- Small size – 40 in³ (655 cm³)
- Light weight – <1.5 lbs (0.68 kg)
- Environmental – -43°C to 71°C
- Power – <18 W (5-channel), +5 V input
- Field reprogrammable

Performance

- Tightly or ultra tightly coupled navigation
- Aided-INS/GPS***
 - <5 m CEP, <8 m vertical error 1
- Anti-jam capability
 - >95 dB BB/CW J/S tracking (5-channel)
 - >70 dB BB/CW J/S D-Y acquisition
- <9 second state 3 direct P(Y) TTFM (90% probable)

Outputs

- 3D position, velocity, attitude
- 200, 1200 or 1800 Hz flight control sensing data

*AJ performance is based on 1 Jammer of any type. Full performance is classified.
**Export of Precise Positioning Service (PPS) units is authorized for GPS Memorandum of Understanding countries only. PPS security modules must be obtained through Foreign Military Sales (FMS) procurement.
***Trajectory dependent.

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