Intrepid for T20-ASV For Autonomous Survey Vehicles

Teledyne's Intrepid is an integrated GNSS INS solution for the SeaBat ASV product line. The system offers a simplified setup through SeaBat's modern UI, eliminating the need for physical or software interfacing between sensors.

The system outputs data in Teledyne's popular s7k format, and features ample options for RTK correction input, including a built-in NTRIP client and support for Fugro MarineStar[®] correction services, making high-resolution mapping a straightforward process.

Additionally, users benefit from collective software and firmware updates for the entire mapping system through this unified solution.







Product Benefits:

- Unified solution to simplify mapping operations
- A single user friendly UI for the complete mapping system
- Supporting all popular data outputs, including Teledyne s7k
- Streamlined and efficient approach eliminating the need to interface external sensors
- Single supplier for all service and support



Intrepid for T20-ASV



SYSTEM SPECIFICATIONS

Position (m) ¹ :	Horizontal:	0.008
	Vertical:	0.015
Roll/Pitch (°):	0.02	
Heading (°):	0.03	
Heave (m):	0.05 / 5%	
Delayed heave (m):	0.02 / 2%	

	height [mm]	width [mm]	depth [mm]	weight [kg air/water]
IMU:	67	118	96	1.9/1.5
Antennas:	62	146		
ASV Sonar Processor	150	248 (incl. handles)	248 (incl. handles)	6.4/NA

GNSS Signals:	GPS, Galileo, BeiDou, GLONASS, QZSS, SBAS, L-band		
Corrections:	RTCM v2, v3, CMR2, NTRIP, Fugro MarineStar®		
Ingress protection:	IP21 (Processor)		
Temperature (operational/storage):	Processor -5°C to 45°C / -30°C to 70°C IMU -15°C to 55°C / -30°C to 70°C Antennas -50°C to 85°C / -50°C to 85°C		
Data Output:	Teledyne s7k for Position, Heading, Motion, and Delayed heave. All popular NMEA (0183) and binary motion outputs at selectable rates and output locations, serial (RS232) or Ethernet.		
Post-processing:	Log raw GNSS-INS data in Intrepid for post-processing with Qinertia.		

For relevant tolerances for dimensions above and detailed outlined drawings see Manual $^{11}\sigma$ values. Assumes 2m GNSS baseline + RTK. Heave 5cm/5%, whichever is greater for periods ±20 seconds.



T20 Rx sonar receiver T20 Tx sonar projector



Antennas



IMU



ASV Sonar Processor



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