POSIDONIA

ULTRA-DEEP, LONG-RANGE USBL

POSIDONIA USBL, acoustic positioning system for high-accuracy/ultra long-range positioning of subsea vehicles. It is unique to the market with its combination of CHIRP multi-frequency coded signals and digital processing techniques.

FEATURES

- Extremely long-range up to 8,000 m and accurate up to 0.3% of slant range*
- Low frequency band, CHIRP modulation, robust to noise and multipath
- Compatible with OCEANO Transponders range
- Compatible with IXSEA's inertial sensors (PHINS OCTANS, HYDRINS...)

*Performance depends on environment/noise conditions

BENEFITS

- Deep tow operations with no need for second tracking vessel
- High-performance even in extremely adverse conditions
- A wide range of transponders available for all applications
- Added flexibility and improved performance





APPLICATIONS

• Deep towfish tracking • AUV, ROV and any deep sea vehicle tracking
• Pipe/cable laying operations

POSIDONIA
TECHNICAL SPECIFICATIONS

PERFORMANCE [1]

Accuracy	0.3% of slant range
Depth	6,000 m
Range	8,000 m

Optimum performance of POSIDONIA[1] can be achieved when used in conjunction with other IXSEA Navigation equipment (OCTANS gyrocompass or PHINS inertial navigation system as a single high-accuracy source of heading and attitude data).

PHYSICAL CHARACTERISTICS

	Deployable	**Flush**
Acoustic antenna		
Height	420 mm	320 mm
Width Ø	580 mm	800 mm
Weight in air	34 kg	150 kg

PHYSICAL CHARACTERISTICS

	Deployable	**Flush**
Transmitter		
Source level	190 ± 3 dB ref 1µPa	192 ± 3 dB ref 1µPa
Bandwidth	8 - 14 kHz	8 - 14 kHz
Receiver		
Bandwidth	14 - 18 kHz	14 - 18 kHz
Signal	M-FSK	M-FSK
Processing		
Processing Gain	19 dB	19 dB
Navigation / Control	Windows™ compatible	Windows™ compatible

INTERFACES

Protocols	Industry standard (NMEA0183, binary)
GPS	Any external GPS, DGPS, and RTK receiver
Pitch, Roll, Heading	input IXSEA's inertial sensors and standard sensors
Sound velocity	Sound velocity correction (ray bending, velocity error)
Pressure sensor	External pressure sensor, optional OCEANO transponder sensor
External synchronisation	Input / Output

(1) Performance depends on environment / noise conditions

Specifications subject to change without notice

IXSEA: • EMEA : +33 1 30 08 98 88 • AMERICAS : +1 281 681 9301 • APAC : +65 6747 4912 • www.ixsea.com

2010-02-PS-POS