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Easytrak Nexus 2 Lite, Model 2696

Key features

- Bi-directional Sigma 2 Spread Spectrum acoustics
- Full hemispherical tracking
- 10 target tracking
- Internal data logging
- USB connected console
- Optional graphical overlay
- Optional calibration software

Easytrak Nexus 2 Lite Overview

Easytrak Nexus 2 Lite is an advanced USBL positioning and tracking system that determines the position of dynamic subsea targets through the transmission and reception of acoustic signals between the submerged transceiver and a target beacon. It incorporates Sigma 2 Spread Spectrum technology to provide a secure acoustic link. By incorporating Sigma 2 technology the wide bandwidth transmissions reduce the system's susceptibility to interference.

Designed for ease of installation in a vessel's operations room, the surface console has been mounted within a small desktop enclosure.

Easytrak Nexus 2 Lite retains legacy compatibility with tone beacons.

Nexus 2 Lite Technical Specification

EASYTRAK NEXUS 2 LITE CONSOLE, MODEL EZT-2696

Provides DC power, high speed digital communications to the transceiver with a USB interface to user PC running Easytrak Nexus 2 Lite software.

Dimensions	252mm x 260mm x 54mm
Weight	1.0kg
Power requirements	48Vdc / Vac Adapter Input: 90Vac – 230Vac 47-63Hz typically 3A
Connection to transceiver	Rear panel connector for 2686N Transceiver
Temperature	Operating: -10° to +40°C Storage: -20° to +50°C
Front panel indicators	LED indicators for power and serial status.
Serial communications	4 x Console RS-232 Data Ports. System utilises PC ports if available
Data Output	aae format V1 and V2, TP-II2EC, TP-EC W/PR, Simrad 300P, Simrad 309, Simrad $PSIMSSB, Pseudo $GPRMC, NMEA $GPGGA, NMEA $GPVTG, NMEA $GPTLL, Pseudo $GPGGA, KLEIN 3000 (Quick set) Multiple outputs available Ethernet out using connected PC.
Gyro Input	SGB-HTDS, SGB-HTDt, NMEA HDT,HDM, HDG
VRU Input	TCM-2.X, $HCXDR , TSS1
Calibration	Optional EasyCal 2 USBL Calibration tool
GPS / DGPS Input	NMEA; GLL, GGA, RMC Optional Geo Referenced Graphical Overlay. GeoTiff, DXF
Target Heading Input	NMEA HDM, HDT, HDG, PNI TCM2
Target Depth Input	NMEA DBT, DBK, DBS, DPT, AAE
Time in	GPS Time sync
Responder Output	Positive 12V pulse 5ms long
Audio	Audible activity indicator

EASYTRAK TRANSCEIVER, TYPE EZT-2686N

Factory calibrated multi-element transceiver head complete with integral AHRS and temperature sensor.

Material	316 Stainless Steel
Weight in air/water	16kg/11kg
Dimensions	152mm x 432mm (Ø x L)
Temperature	Operating: -10° to +40°C Storage: -20° to +50°C
Depth rating	30m
Electrical supply	48Vdc
Temperature sensor	1° resolution between -10° and +40° C
Cable	30m standard (20-150m options) with connectors. 12.8mm Ø

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Accuracy/Performance

Accuracy is based on the correct speed of sound being entered, no ray bending and an acceptable S/N ratio

Position accuracy	0.45% of slant range, with external sensors Acoustic accuracy excluding heading correction errors
Range resolution	Calculated to 0.01m resolution
Maximum range	995m
Frequency band (MF)	18 - 32 kHz
Tracking beam pattern	Hemispherical, 180°
Transmitter	Variable, typical max 192dB re 1µPa at 1m
Integrated AHRS:	Bearing resolution: 0.1° displayed. Internally calculated to 0.01° Heading sensor accuracy: 0.5° rms standard; +/- 0.1° resolution/repeatability Pitch/Roll sensor accuracy: +/- 0.20° rms +/- 0.1° resolution/repeatability
Beacon types	aae Sigma 1, Sigma 2 Digital Spread Spectrum and aae Tone channels. aae V-NAV channels. HPR 400 channels. 1100, 1000, 1200A, 1300A Series beacons, Digital Depth Transponders, aae Release and Telemetry beacons
Interrogation rate	>2Hz refresh rate. Internally set or external key
System	Externally assessed for immunity and emissions; conforms to 89/336/EEC. RoHS compliant

**dependent on correct beacon selection, installation and environmental conditions.*

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