

Name	Website	Location	Technology	Current Underwater Device									Customization Abilities	Number of Employees	Founding Date
				Depth Rating (m)	Battery Life (hr)	Location Accuracy	Price	Communication Range	Communication Method	Method to View Gear Location	Interoperability	Data Transmission Capability			
Advanced Navigation	https://www	Australia	Acoustic positioning transponder that operates with the Subsonus USBL	up to 2000m	18 months	TBD	\$2430; volume discounts available	up to 1000m	USBL	Surface Unit	TBD	TBD	Yes	56	2012
AppliCon	http://www	Italy	SeaModem, an acoustic modem that allows underwater digital communication and networking	400m	TBD	TBD	TBD	In development	Acoustics	In development	Supports the JANUS standard	In development	Yes	TBD	1969
Applied Acoustics	https://ap	UK	Easytrak, an Ultra Short Baseline (USBL) underwater positioning and tracking system	Different options	Different options	TBD	TBD	Different options	USBL	Different options	Compatible with almost all industry standard tracking systems	TBD	Yes	16	1989
Ashored Innovations	https://as	Canada	'rope on-command' (ROC) fishing system to minimize the risk of whale entanglements	TBD	TBD	TBD	TBD	TBD	Acoustics	TBD	TBD	GPS location is recorded and uploaded to a cloud server	N/A	2-10	2018
Beringia/DiveNET	https://www	USA	Compact acoustic network modems that claim to be the smallest in the world	up to 300m	TBD	TBD	TBD	up to 2000m	Acoustics	Separate Display	TBD	long range digital acoustic communication	Yes	TBD	2018
Blueprint Subsea	https://www	UK	Suite of products built around a robust broadband spread spectrum signaling scheme	up to 2000m	TBD	0.5m	\$15,000	up to 2000m	USBL	Chart Plotter	TBD	Windows Software Application	Yes	9	2006
DARPA & US Navy	N/A	USA	Positioning System for Deep Ocean Navigation (POSYDON) program	TBD	TBD	TBD	TBD	TBD	Acoustics	TBD	TBD	TBD	TBD	DARPA: 517	N/A
Desert Star Systems	https://www	USA	Ropeless fishing system comprised of three components based off a fusible link release	300m	TBD	TBD	Starts at \$5,250	Gear owner can specify range	Acoustics	Surface station and app	TBD	TBD	N/A	11-50	1992
DSP Comm	https://www	Australia	Underwater wireless communication systems for underwater connectivity with optional network.	200m,1000m,3000m	Modular design to add battery extensions	TBD	"Under \$1,000"	TBD	TBD	Separate Display	Networking APIs	Proprietary Digital Spread Spectrum	Yes	3	2000
Edgetech	https://www	USA	5112 Ropeless Fishing System (RFS), tracking app, and transponder	up to 3500m	1 year or 3000 replies	TBD	TBD	up to 500m	Acoustics	Separate Display	TBD	BLEAT w/Deckbox	Yes	48	1963
Evologics	https://ev	Germany	Ecosystem of products based on the the S2C (Sweep Spread Carrier) technology	up to 10,000m	TBD	TBD	TBD	TBD	USBL, S2C (Sweep Spread Carrier)	Customer's navigation computer	Can detect disturbances from other devices	acoustic telemetry provides independent bidirectional data link	Yes	17	2000
Geospectrum Technologies	https://ge	Canada	C-Bass family of compact Very Low Frequency (VLF) long-range acoustic underwater transducers	up to 1000m	TBD	within 10%	TBD	999 km	Very low frequency acoustics	Separate Display	TBD	C-BASS and VLF	Yes	60	1994
Gloucester Innovation	http://glo	USA	Working with the Lobster Foundation of MA to develop a smart IoT lobster trap called LobsterNet	TBD	TBD	TBD	TBD	TBD	No underwater communication currently	Separate Display	TBD	Tethering additional sensors	TBD	TBD	2013
Hamburg University of Technology	https://dl	Germany	'ahoi' acoustic modem for micro AUVs	150m	TBD	TBD	\$600	150+m	Acoustics	Chart Plotter	"compatible with various hydrophones and frequency bands"	High integration acoustics	TBD	128	2020

Harbin Engineering University	https://www.harbin-engineering.com/	China	Novel Underwater Location Beacon Signal Detection Method	N/A	TBD	TBD	TBD	TBD	Mixing and normalizing stochastic resonance (MNSR)	Separate Display	TBD	MNSR & ULB	N/A	366	2020
Imenco Nautronix	https://imenco.com/	Norway	Range of acoustic pingers and receivers for easy marking and location of subsea structures	Claims to work at any depth	Customizable	TBD	TBD	Customizable	Customizable	Customizable	Customizable	Customizable	Yes	TBD	1979
InnovaSea	https://www.innova-sea.com/	USA	VEMCO Positioning System (VPS) is an ultrasonic aquatic fine-scale positioning system	Customizable	Customizable	Customizable	TBD	Customizable	Acoustics	TBD	TBD	TBD	Yes	138	2014
iXBlue	https://www.ixblue.com/	France	Complete USBL offer for very shallow water to greater depths	up to 10,000m	Different options	Different options	TBD	Different options	USBL	Customizable	TBD	TBD	Yes	460	1998
KAUST(AO-UWSN)	https://www.kaust.edu.sa/	Saudi Arabia	Novel localization method optimal for energy harvesting as well	TBD	TBD	TBD	TBD	TBD	Hybrid acoustic-optical	Chart Plotter	TBD	AO-UWSN	N/A	N/A	2018
KAUST(SPLIT)	https://ieeexplore.ieee.org/	Saudi Arabia	Simultaneous Lightwave Information And Power Transfer (SLIPT) Configurations	"several meters deep"	TBD	TBD	TBD	Several meters	Optical	TBD	TBD	N/A	N/A	N/A	2020
KONGSBERG	https://www.kongsberg.com/	Norway	High precision acoustic positioning system and Small and portable acoustic positioning system	Claims to work at any depth	Different options	Different options	TBD	TBD	USBL, LBL, SSBL	Customizable	Any other devices using HIPAP	TBD	Yes	1947	1914
LinkQuest	https://www.linkquest.com/	USA	TrackLink systems, a family of USBL acoustic tracking systems	up to 11,000m	TBD	Up to 0.25 degrees	Starts at \$15,000	1,000m	USBL	TrackLink Navigator Software on computer	TBD	Broadband Acoustic Spread Spectrum for underwater tracking and communication	TBD	TBD	1998
Marecomms	http://marecomms.com/	Canada	Robust and broadband underwater acoustic communication system with advanced algorithms	TBD	TBD	TBD	TBD	Up to 1,000m	Acoustics	Separate Display	TBD	26.66 Kilobits per second	Yes	2	2017
Microfine Materials Technology	http://www.microfine.com/	Singapore	High-performance piezoelectric actuators based on novel lead zinc niobate-lead titanate	N/A	TBD	TBD	TBD	TBD	Acoustics	TBD	TBD	Acoustic vector sensors	Yes	6	1995
Newcastle University	https://newcastle.ac.uk/	UK	Low-cost, miniature transponder for the NetTag project	TBD	TBD	TBD	50-100 euros	Up to 3,000m	Acoustics	Separate Display	TBD	IBDF-UWA	TBD	N/A	2019
Ocean Space Acoustics	https://www.ocean-space.com/	Norway	PingMe is a device for tagging gear and objects under water	up to 1000m	5-10 years	TBD	TBD - claim to be low cost	1000m	Acoustics	Separate Display	TBD	PingMe Software	TBD	7	2018
OceanComm	https://oceancomm.com/	USA	Wireless acoustic modem, which company claims acts like underwater Wi-Fi	400m or greater	TBD	TBD	\$2,000 or \$6,000	Up to 10km	Acoustics	Separate Display	TBD	5 bits/s/Hz	Yes	5	2014
Popoto	https://popoto.com/	USA	Underwater acoustic products including acoustic modems, transducers, and development kits	between 200m-2000m	TBD	TBD	\$2000; discount pricing for large quantities	TBD	Acoustics	Chart Plotter	Supports the JANUS standard	OEM Boardset with JANUS to on-board surface	Yes	TBD	2017
RJE International	https://www.rje-international.com/	USA	Specializes in customization and claims to be able to create underwater devices for any specific task	up to 6000m	Customizable	Customizable	Customizable	Customizable	Customizable	Customizable	Customizable	Customizable	Yes	TBD	1991
Sercel	http://www.sercel.com/	France	GeoTag is an acoustic positioning system that has been designed to work with any ocean bottom	up to 500m	6 months	TBD	TBD	up to 500m	Acoustics	Separate Display	TBD	TBD	Yes	659	1956

Smart Ocean Technology	http://www	China	Devices that use Orthogonal Frequency Division Multiplexing (OFDM) modulation technology	up to 5000m	TBD	TBD	TBD	up to 5000m	Acoustics - Orthogonal Frequency Division Multiplexing (OFDM) modulation	Separate Display	Built-in SeaLink underwater acoustic network protocol stack	OFDM	TBD	TBD	2016
Sonardyne	https://www	UK	Portfolio of acoustic and non-acoustic technologies for challenging marine environments	up to 4000m	12-33 months	Can be customized	Depends on customization	"thousands of meters"	Customizable: USBL; dunker system (range)	Chart Plotter	Can customize software completely to integrate it with other software	Customizable	Yes	203	1971
Subnero	https://su	Singapore	Acoustic modems for research and commercial purposes	up to 2000m	TBD	0.1 m	TBD	5000m	Acoustics	Separate Display	Supports the JANUS standard	surface buoys to on-board electronic	Yes	8	2011
Subteq.io	http://sub	France	Low-cost solution based on USBL technology for individual and technical divers	150m	TBD	TBD	TBD	up to 500m	USBL	Chart Plotter	TBD	Floating Antenna	TBD	TBD	2015
Teledyne Marine	http://www	USA	Underwater locator products based on experience in bouyless gear location marking	up to 2000m	"days or weeks", option to supply	TBD	TBD	up to 500m	Customizable	Separate Display	Supports the JANUS standard	Universal Topside	Yes	3921	1960
Tritech	https://www	UK	MicronNav - USBL Tracking System designed for small ROV / AUV	300m-500m	TBD	TBD	18,000 euros	up to 500m	USBL	Separate Display	TBD	Spread Spectrum	Yes	31	1983
UC & NL	https://ur	Russia	Products for underwater navigation, underwater data transmission, and underwater telephones	up to 8,000m	TBD	TBD	Acoustic modem: \$480	TBD	USBL	Customizable	Open source software and hardware interfaces	Customizable	Yes	6	2015
UC San Diego	https://we	USA	Underwater acoustic modem with a specific focus on reducing the cost of the transducer	N/A	TBD	TBD	Transducer : \$50 Modem: \$250-600	up to 400m	Acoustics	Chart Plotter	TBD	acoustic transducer and signals	TBD	N/A	2010
Underwater Technologies Center	https://www	Israel	Wireless underwater digital acoustic communication systems	Customizable	Customizable	Customizable	Customizable	Customizable	Acoustics	TBD	Customizable	TBD	Yes	TBD	2003
W Sense	https://www	Italy	IoUT R&D company with experiences in underwater IoT network components	N/A	TBD	TBD	TBD	TBD	USBL	Chart Plotter	Supports the JANUS standard	LBL	Yes	30+	2012