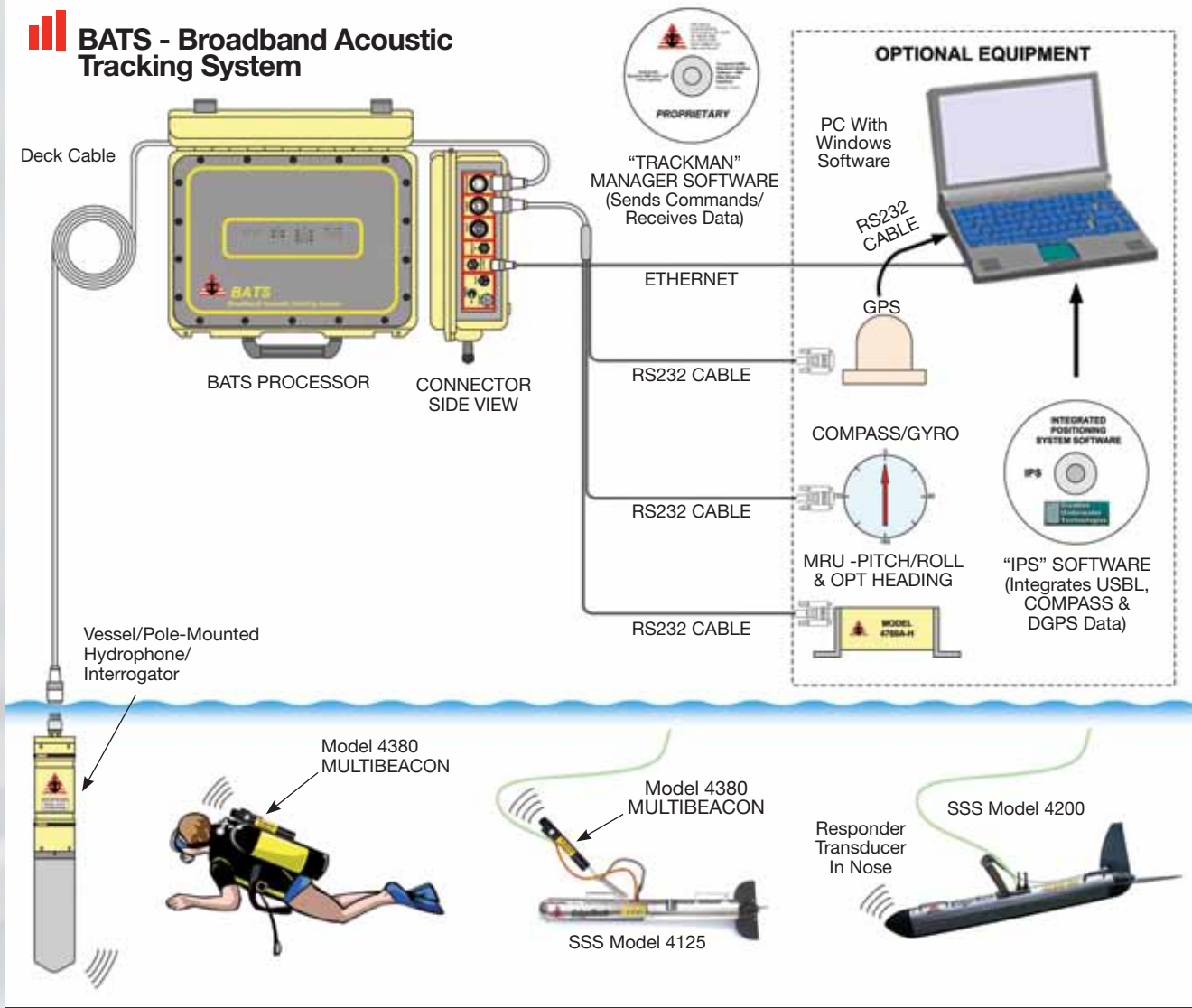


UNDERWATER TRACKING & POSITIONING

USBL Broadband Acoustic Tracking System (BATS)

BATS

BATS - Broadband Acoustic Tracking System



Trackman Software

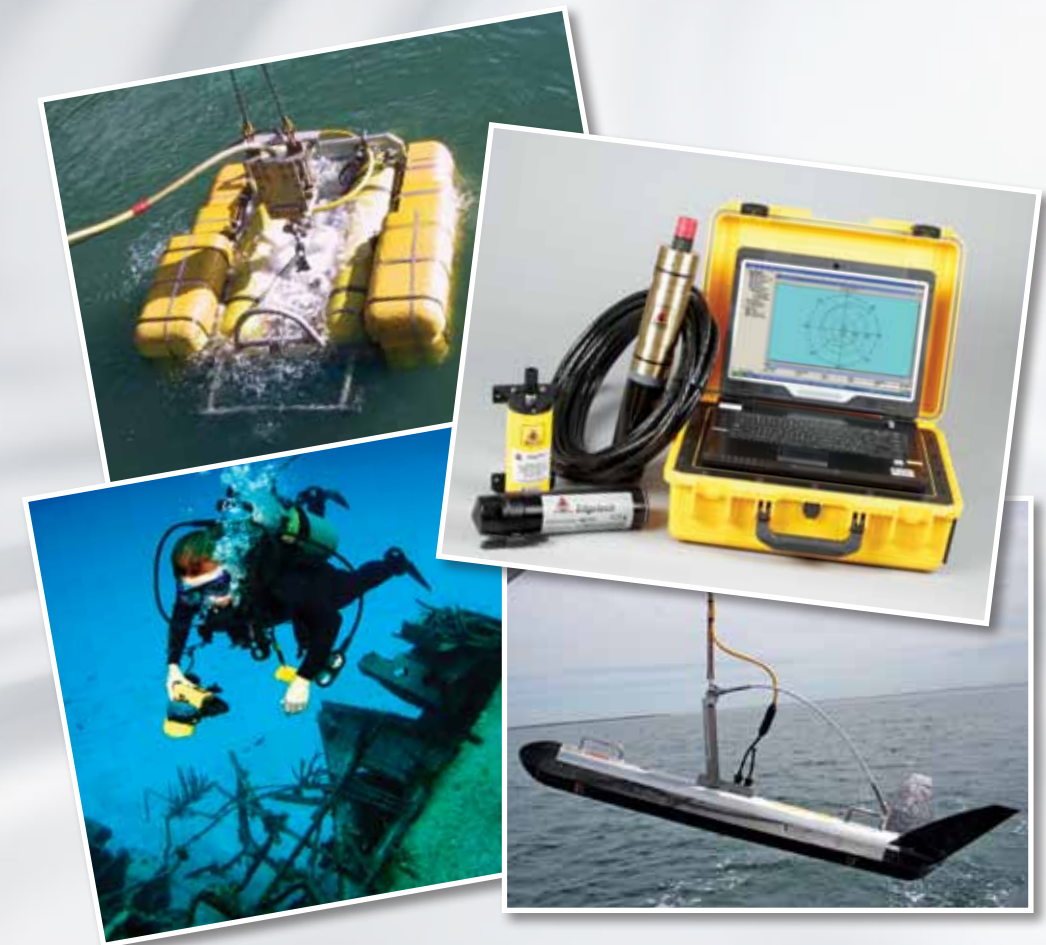
- Included with every EdgeTech USBL system
- Provides submerged target position relative to the vessel
- Easy to use GUI software

Integrated Positioning Software (IPS) (optional)

- Provides actual underwater target positions – latitude, longitude, and depth
- Target positions are displayed graphically on a map for the user to easily see
- Combines inputs from GPS, MRU, and Trackman software

Motion Reference Unit (MRU)

- Pitch and roll sensor
- Cost-effective solution for the USBL system
- MEMS Type sensor with static attitude RMS accuracy of .1 degrees, dynamic accuracy .25 degrees



UNDERWATER TRACKING & POSITIONING

SUPERIOR TRACKING & POSITIONING

Since the days of ORE Offshore, EdgeTech has been known in the field of underwater positioning, tracking and navigation. In the most recent years the company has upgraded the product line with the introduction of the Broadband Acoustic Tracking System (BATS). With BATS, and the introduction of

CHIRP and other Broadband technologies, we are able to achieve longer ranges and improved accuracies, while still retaining the wide beam pattern (>180 degrees) that has provided the extraordinary performance in shallow water environments for which our systems have long been famed.

KEY SPECIFICATIONS

SYSTEM PERFORMANCE

Transponder/Responder Absolute accuracy in horizontal position (over entire hemisphere) (does not include motion)	± 0.5% RMS of slant range
Repeatability accuracy (does not include motion)	± 0.3% RMS of slant range
Azimuth resolution	0.08 degree
Slant range accuracy	± 0.3 meters RMS (with correct sound speed)
Slant range resolution	0.05 meters
Acoustic coverage	± 90 degrees below hydrophone/projector
Signal to noise ratio	20 dB @ hydrophone (in 17-30 kHz band)
Receive frequency	17 to 30 kHz Spread Spectrum, Also, REMUS codes 1 - 4
Transmit frequency	16 to 21 kHz in 500Hz increments (400 Watt transmit output) (Plus, REMUS xmit codes 1 - 4)
Receive pulse width	Various coding schemes available
Transmit pulse width	1 to 15 milliseconds



SURFACE UNITS



Rack mount or desktop.



Splash-proof portable unit.

WEIGHTS AND DIMENSIONS

Signal Interface Module (2U rack)	L 18.9 in (48.0 cm) x H 3.46 in (8.8 cm) x D 20 in (50.8 cm) 21 lbs (9.5 kg)
Hydrophone	L 20 in (50.8 cm) Dia 2.9 in (7.4 cm) 10 lbs (4.5 kg)
Cable	L 50 ft (15 meters) Dia* 0.5 in (1.3 cm) 8 lbs (3.6 kg)

UNDERWATER BEACONS



These underwater beacons feature an omnidirectional transducer (with a directional option) as well as an integral transducer (with a remote head option).

	4380	4360
	Primary Subsea Beacons	Range Optimized Beacons
Depth Telemetry	Yes	Optional
Range (meters)	up to 2500	up to 3300
Depth rating	1000m	Up to 3000m
Frequencies	16-28 kHz	16-30 kHz
Battery: Listening Life/Followed by # of Interrogations	5 days / 20,000	5 days / 20,000
Size (length x width)	18.2" (46.2 cm) x 2.86" (7.26 cm)	22.5" (57.2cm) x 3.5" (8.9cm)
Weight (air/water)	5.96 lbs (2.7 kg) / 1.67 lbs (0.76 kg)	11 lbs (5.0 kg) / 6 lbs (2.7kg)

For more information please visit EdgeTech.com

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