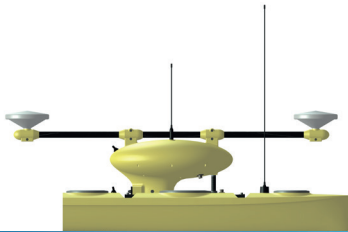


Picotech Ltd

PicoMB-130-Surf

The world's smallest integrated
Multibeam Echosounder

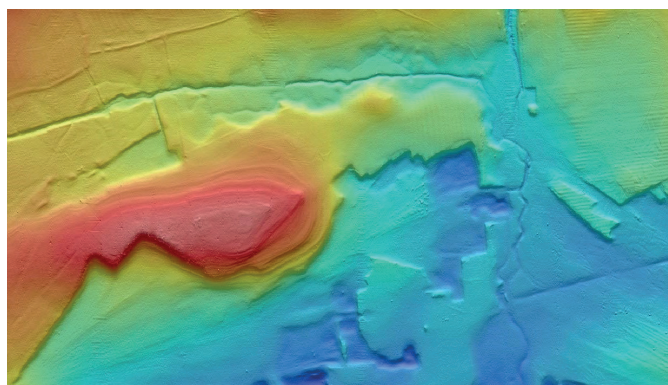


The PicoMB-130 facilitates ultra-high resolution surveys on man-portable USVs and small survey vessels.

PicoMB-130's small size, low weight and class leading power consumption allow rapid mobilisation, simple launch and recovery and long endurance.

PicoMB-130-Surf comes with an industry leading inertial navigation system fully integrated within its deck unit, speeding and simplifying mobilisation and reducing costs.

PicoMB-130 is supported by industry standard acquisition and processing software, BeamworX®, EIVA NaviSuite®, Xylem HYPACK®, Teledyne PDS® and QPS QINSy®.



PicoMB-130-Surf standard configuration

Deck Unit

- Integrated sonar processor and Applanix POS MV GNSS+IMU in tiny form factor
- Water-resistant IP67 rated
- 20-28VDC ideally suited for 6S LiPos
- Complies with EN 60945 : 2002 Maritime navigation and radio communication equipment and systems

Transducers

- Rugged fully over-molded digital transducers immune to galvanic corrosion
- 300-400kHz wide-band 1-3 composite arrays
- Less than 0.4kg in water

PRODUCT BENEFITS

- Unprecedented size and weight for rapid mobilisation on (one) man-portable USVs and small survey vessels
- Class leading power consumption for long endurance on LiPos
- Rugged fully over-molded digital transducers immune to galvanic corrosion
- Backscatter (snippets) available as standard



PicoMB-130 Specifications

Input voltage	20 to 28v DC
Power (sonar / with IMU)	6W / 11W ¹ , 18W ²
Ingress protection	Dust tight, accidental immersion up to 1m (IP67)
Transducer cable length	3m
Temperature (operational ³ / storage)	Deck Unit: -5°C to 50°C / -10°C to 60°C

	Height [mm]	Width [mm]	Depth [mm]	Weight [kg/air]	Weight [kg/water]
PicoMB-130 RX	42	183	30	0.35	0.19
PicoMB-130 TX	42	54	199	0.49	0.18
Deck Unit	92	162	174	2.6	N/A

PicoMB-130 performance

Across-track receiver beam width ⁴	1.4°
Along-track beam width ⁵	1.4°
Number of beams	256
Swath coverage (up to)	130°
Min depth	0.6m
Max depth ⁶	170m
Ping rate (range dependent)	Up to 25Hz
Pulse length (FM)	500µs - 5ms
Range resolution	30mm
Depth rating (transducers)	10 metres
RTK position accuracy ⁷	Horizontal: +/- (8mm + 1ppm x baseline length) Vertical: +/- (15mm + 1ppm x baseline length)
Heading accuracy	0.06° with 4m antenna baseline 0.08° with 2m antenna baseline
Roll, pitch accuracy	0.025° PPK operations 0.03° RTK operations 0.04° C/A or Differential operations
Heave accuracy	Real Time: 5cm or 5% (whichever is greater) for periods of ≤ 16s TrueHeave™ : 2cm or 2% (whichever is greater) for periods of ≤ 35s

PicoMB-130 Surf Scope of supply

- RX array on 3m cable
- TX array on 3m cable
- Deck unit with integral Applanix SurfMaster
- 2 off 540AP GNSS Antennas
- 6m umbilical cable
- 14 month warranty

¹AP+⁵380kHz centre frequency²AP⁶90° swath³Water temperature < 30C⁷RTK accuracies assume 1m IMU GNSS antenna offset⁴380kHz centre frequency

Optional extra features

- 26 month warranty.
- Acquisition PC and autopilot integrated within deck unit
- Hydrodynamic fairing
- PicoPOD-130 – (one) man-portable turnkey multibeam survey package to upgrade HyDrone for autonomous multibeam surveys
- PicoCAT-130 – (one) man-portable turnkey autonomous multibeam survey USV.



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