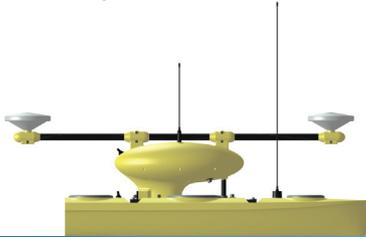


Picotech Ltd

PicoMB133

For IHO Special Order surveys onboard one-man-portable USVs and small survey vessels



The PicoMB133 multibeam echosounder facilitates ultra-high resolution surveys on man-portable USVs and small survey vessels.

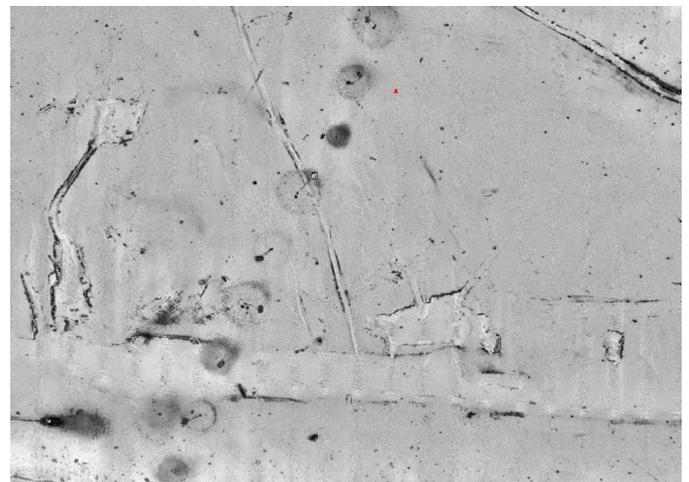
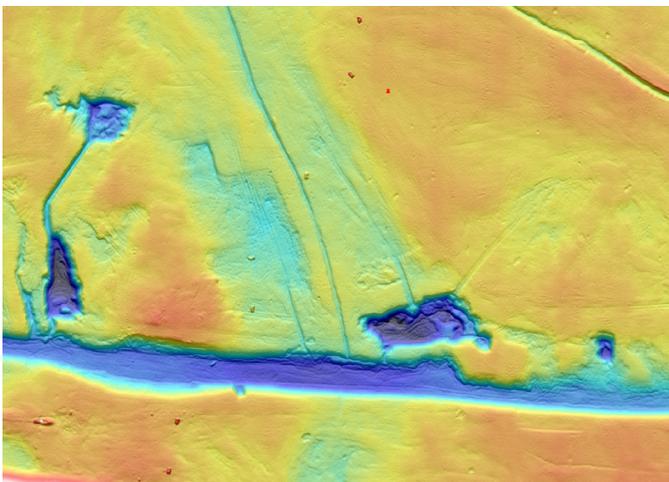
PicoMB133's small size, low weight and class-leading power consumption allow rapid mobilisation, simple launch and recovery and long endurance.

PicoMB133 comes with an industry-leading Inertial Navigation System fully integrated within its deck unit, speeding and simplifying mobilisation and reducing costs.

PicoMB133 is supported by industry standard acquisition and processing software, BeamworX®, EIVA NaviSuite®, Xylem HYPACK®, Teledyne PDS® and QPS QINSy®.

PRODUCT BENEFITS

- Rugged fully over-molded digital transducers immune to galvanic corrosion
- 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
- 300-400kHz wide-band 1-3 composite arrays
- Less than 0.4kg in water
- Backscatter (snippets) available as standard



PicoMB133 Specifications

Input voltage	14.8V DC
Power Dissipation (deck unit)	7W
Ingress protection (deck unit)	IP54
Transducer cable length	3m
Temperature (operational/ 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]
PicoMB133 RX	42	183	30	0.35	0.19
PicoMB133 TX	42	54	199	0.49	0.18
Deck Unit	64	86	129	0.69	N/A

PicoMB133 performance

Across-track receiver beam width ²	1.4°
Along-track beam width ³	1.4°
Number of beams	256
Swath coverage (up to)	130°
Min depth	0.6m
Max depth ⁴	170m
Ping rate (range dependent)	Up to 25Hz
Pulse length (FM)	500µs - 5ms
Range resolution	30mm
Depth rating (transducers)	10m
RTK position accuracy ⁵	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

PicoMB133 Scope of Supply

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

Optional Extra Features

- Hydrodynamic fairing

- ¹ Water cooling not required
² 380kHz centre frequency
³ 380kHz centre frequency
⁴ 90° swath
⁵ RTK accuracies assume 1m IMU GNSS antenna offset

