About

PicoMBES-120SF is a low-cost, miniature CHIRP FM multibeam echosounder (MBES), customized to fit inside the transducer well of the EchoBoat™. The EchoBoat is a 1.68m remotely controlled and autonomous surface vehicle that can be used to perform multibeam surveys in very shallow water or in remote areas where it is difficult to launch conventional survey boats.

PicoMBES-120SF features rugged, fully encapsulated transducers and an aluminum topside with optional integrated Applanix INS. All beamforming and digital signal processing are performed within the sonar, allowing a direct connection from the sonar to a computer via Ethernet, or Android smartphone/tablet via WiFi. GNSS and IMU connect to the sonar - no rack-mounted hardware is required. Android and Windows GUIs are provided for real-time display and recording. The Android app features a real-time 3D point cloud allowing bathymetric data to be acquired using a tablet or smartphone in an Aquapac.

The PicoMBES-120SF interfaces directly with the EchoBoat’s onboard industrial PC. From a shore laptop using remote desktop connection, the user accesses the onboard PC via a WiFi bridge to control the sonar settings, data logging, as well as the EchoBoat-ASV’s AutoNav autonomous mission planner.
**PicoMBES™**
*Multibeam Echosounder*

**PicoMB-120**

Swath sector 120°
Beam width 1.4° x 1.4° @380kHz
1.5° x 1.5° @360kHz
1.6° x 1.6° @337kHz
Frequency 300-400 kHz
Pulse length 500µs, 5ms
Number of beams 256 spaced @ 0.47°
Maximum range 240 m
Range Resolution 37mm
Power 20 to 28 VDC, 12 W
Transducer Pressure depth 300m

**PicoMB Pole Kit**

The CFRP Pole Mount Kit for PicoMB creates a lightweight 1 man-portable multibeam setup for RIBs and has been designed for the lowest possible weight and is intended for low survey speeds on small vessels.

Integrates with Applanix’s POS MV WaveMaster II which is a user friendly, turnkey system designed and built to provide accurate attitude, heading, heave, position, and velocity data of your marine vessel and onboard sensors.

---

**Seafloor™**

info@seafloorsystems.com | www.seafloorsystems.com