

# Echologger EU400

Precision Echosounder with USB interface

by EofE Ultrasonics Co., Ltd.



# Features

Professional echosounder for precision hydrographic survey

Extremely easy to use with USB connection

Plug & Play

No external power supply is necessary, just use power from your PC.

Backscatter data along full water columns (Both ASCII and Binary output )

NMEA0183 format available

Compatible with commercial hydrographic software (Hypack, Hydropro, ect.)

Tilt sensor integrated (optional)

High speed communication rate (up to 921kbaud)

Versatile adjustable parameters

- Ping rate up to 10 Hz

- Speed of sound

Optimized for shallow water survey (Deadzone less than 15cm)

Ideal for installing on small boats in combination with a GNSS receiver

# Applications

Seabed mapping (bathymetry)

Scour monitoring

Sediment move monitoring

Navigation

# Specification

<b>Acoustic Frequency</b>	<b>200 kHz / 450 KHz</b>
<b>Beam width</b>	<b>10° / 5° Conical (-3dB)</b>
<b>Transmit Pulse Width</b>	<b>10µsec ~ 200µsec (10µsec step)</b>
<b>Transmit Power</b>	<b>Up to 50 W, Auto-adjust</b>
<b>TVG Control</b>	<b>Up to 60 dB,</b>
<b>Gain Control</b>	<b>-30 dB to +30 dB</b>
<b>Ranges</b>	<b>0.15 m ~ 150 m (200kHz), 0.15 m ~ 100 m (450kHz)</b>
<b>Housing Material</b>	<b>Acetal</b>
<b>Connector</b>	<b>USB with 5m cable</b>
<b>Repetition (Ping) Rate</b>	<b>10 Hz max</b>
<b>Sampling Rate</b>	<b>100 kHz</b>
<b>Water Column Resolution</b>	<b>7.5 mm</b>
<b>Altimeter Range Resolution</b>	<b>1.0 mm</b>
<b>Temperature sensor Resolution</b>	<b>0.1°C</b>
<b>Temperature sensor Accuracy</b>	<b>0.5°C (-10°C ~ +50°C)</b>
<b>Tilt sensor integrated (optional)</b>	<b>Dual-axis (Roll &amp; Pitch) ±90°</b>
<b>Communication Speed</b>	<b>4800 ~ 921600 baud (115200 baud default)</b>
<b>Data Output Format</b>	<b>Profile (ADC 1024bit) in ASCII Text NMEA0183 &amp; Simple altitude</b>
<b>Power Supply</b>	<b>5V (USB), 2W Max</b>
<b>Dimensions</b>	<b>D56 X L80 (w/o connector)</b>
<b>Weight</b>	<b>420g</b>

# Product Images



Professional echosounder for precision hydrographic survey  
but extremely easy to use.  
Just plug into your notebook PC and you are fully equipped.

# Product Images

Available on Trimble Shop  
with Trimble Access BathySurvey app

Ideal for installing on small boats  
in combination with a GNSS receiver.



EchoLogger

EchoLogger

# Product Images

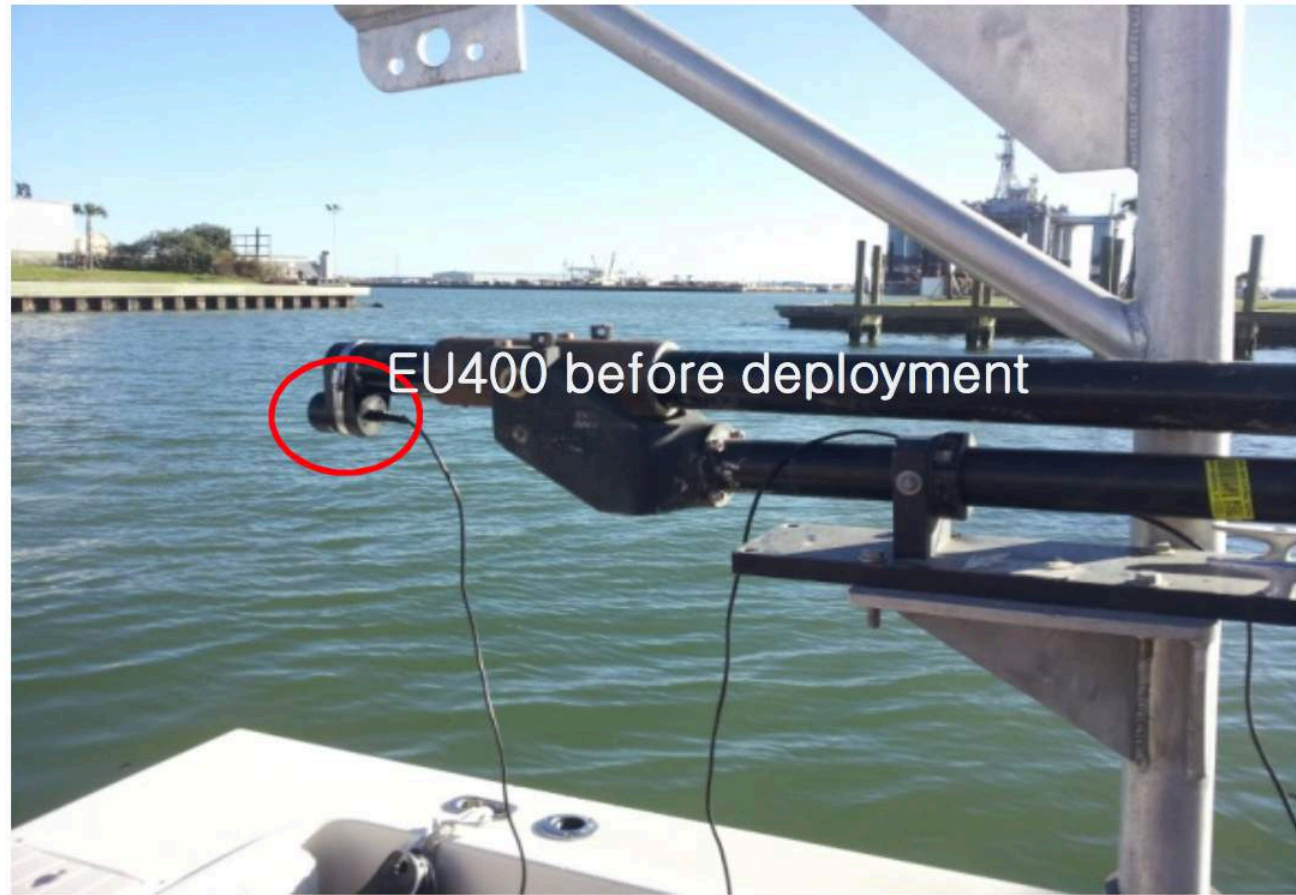


Compatible with NaviCom controller & GNSS



# Product Images

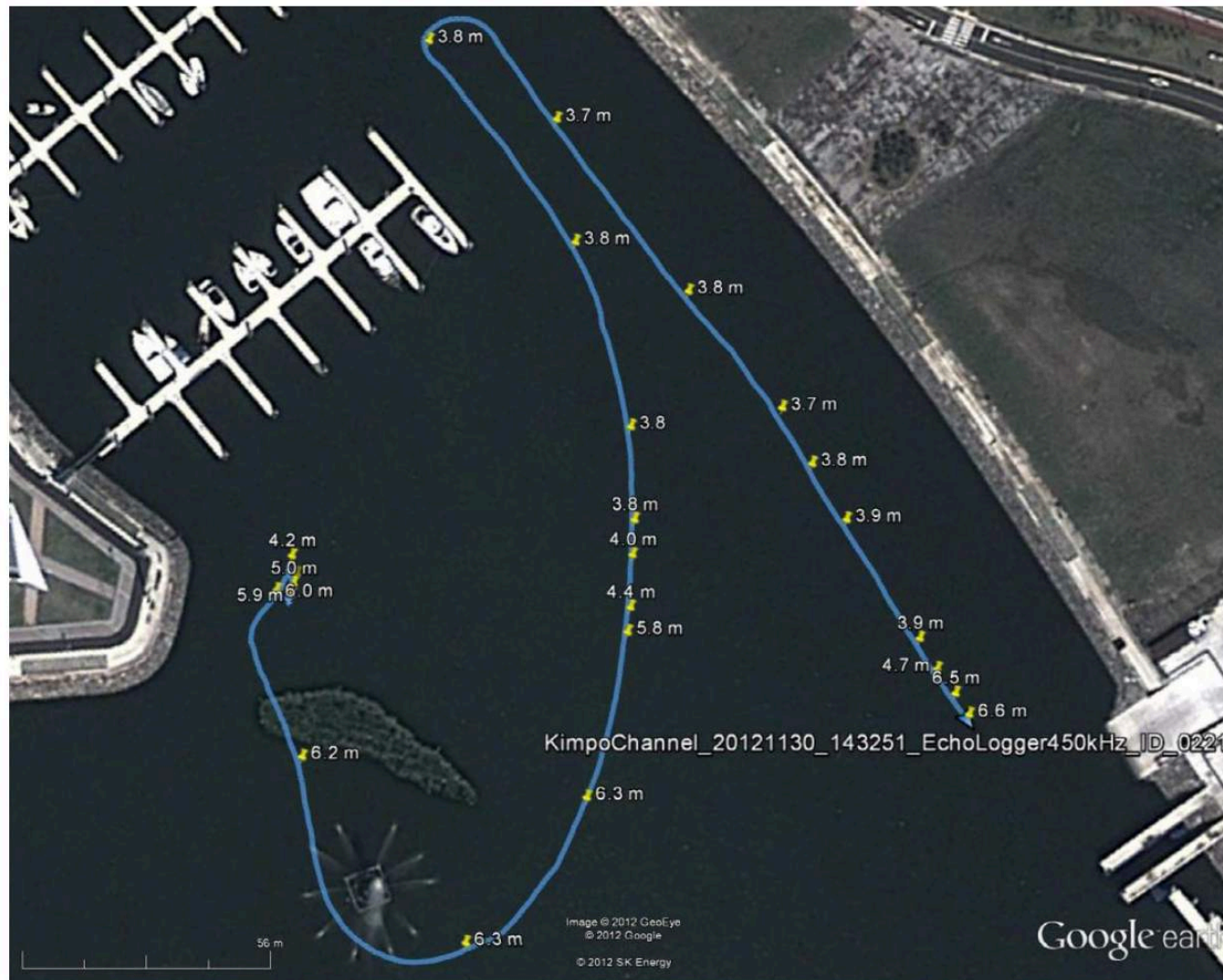
Sea bottom survey  
at Galveston Bay, Tx



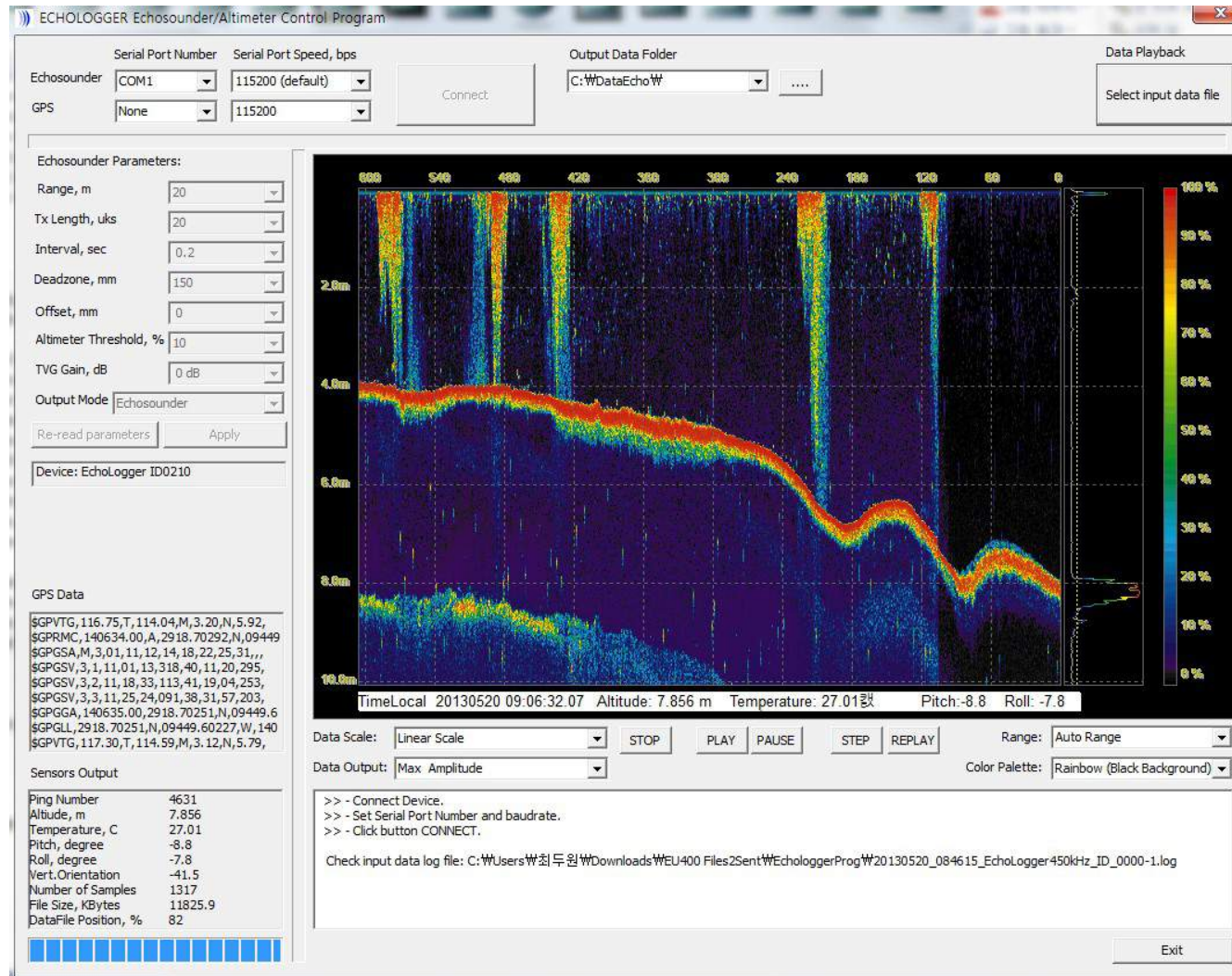


# Product Images

Depth information of a marina(Kimpo, Korea)

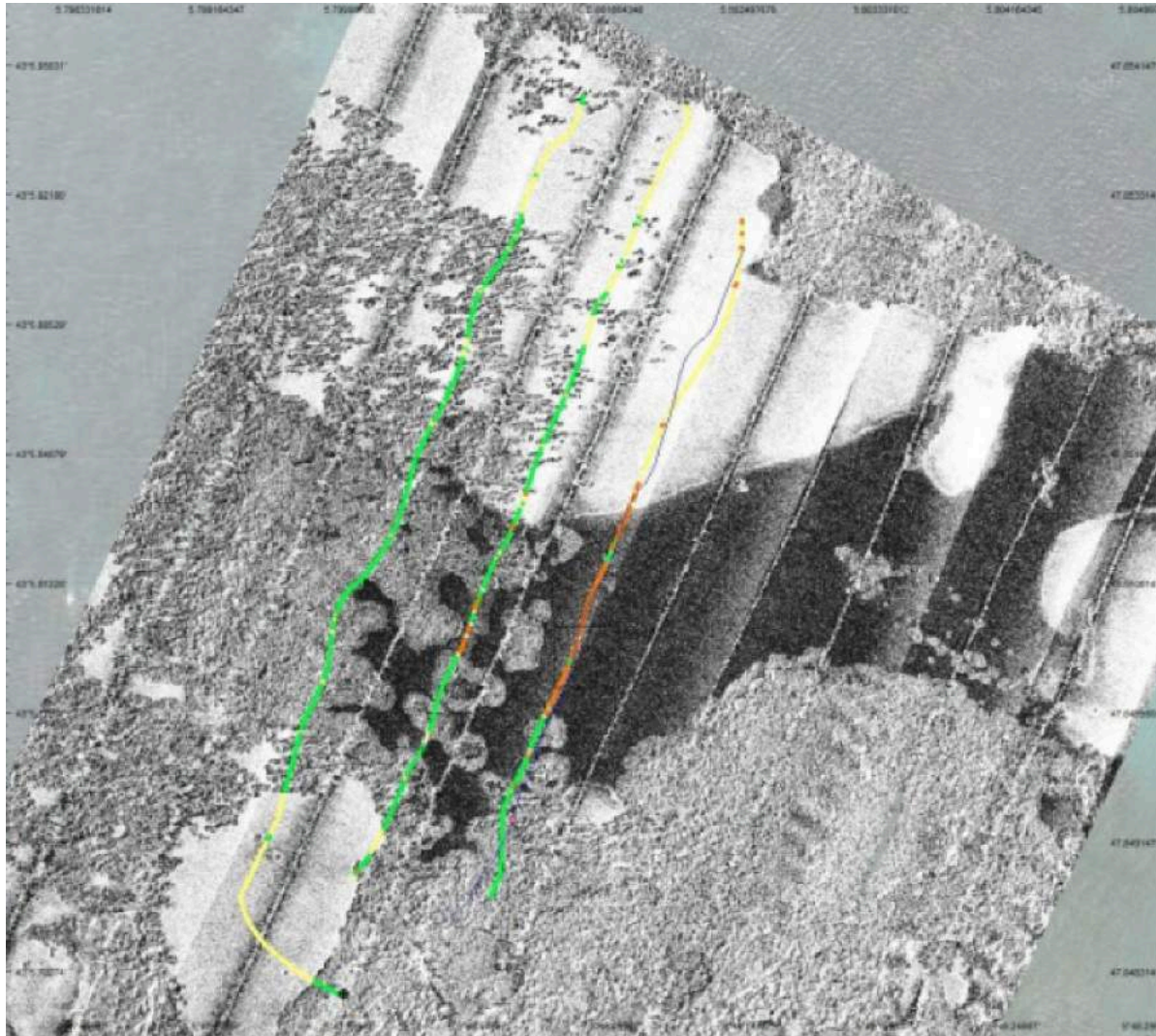


# Product Images



GUI software

# Product Images (bathymetric with EU400, Courtesy of Semantic TS)



# Versatile parameter setting using commands or GUI software

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Commands:
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- #help
- #go      (goto Work Mode)
- #default (set default Settings)

Device ID: 0200 Echologger 450000 Hz Type USB / RS-232

- #range      [10000 mm   ] Range, 1000 ~ 100000
- #interval   [ 1.00 sec   ] Interval between pulses, 0.
- #threshold  [  10 %     ] Threshold, 0 ~ 100% Full Sc
- #offset     [   0 mm    ] Offset, -+1000
- #deadzone   [  300 mm   ] Dead Zone 0 ~ 1000
- #txlength   [   20 uks   ] TX Pulse length, 10 ~ 100
- #sound      [ 1500 mps  ] Sound speed, mps
- #output     [   3       ] Output format 1,2,3..
- #gain       [  0.0 dB   ] Analog Gain, -30~+30
- #tvemode    [   1       ] TVG Curve type, 0,1,2,3
- #tvgs       [  1.00    ] TVG Curve Slope. 0.1~10
- #speed      [115200    ] Baud Rate, 4800-921600
- #syncextern [   0       ] Sync Pulse External, 0,1 -
- #syncextmod [   1       ] External Sync Pulse edge, 0
- #syncoutpol [   1       ] Sync Pulse Output, 0,1 - Lo
- #nmeadbt    [   1       ] NMEA DBT message output, 0,
- #nmeadpt    [   1       ] NMEA DPT message output, 0,
- #nmeamtw    [   1       ] NMEA MTW message output, 0,
- #nmeaxdr    [   1       ] NMEA XDR message output, 0,
- #nmeaema    [   1       ] NMEA EMA message output, 0,
```

Echosounder Parameters:

Range, m	20
Tx Length, uks	20
Interval, sec	0.2
Deadzone, mm	300
Offset, mm	0
Altimeter Threshold, %	10
Gain, dB	0 dB
Sound speed, mps	1500
Output Mode	Echosounder
Re-read para	Altimeter NMEA
Device: Echologger	Altimeter Simple
GPS Data	Echosounder Fixed 200 Samples
	Echosounder Fixed 500 Samples
	Echosounder Fixed 1000 Samples

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Thank you!