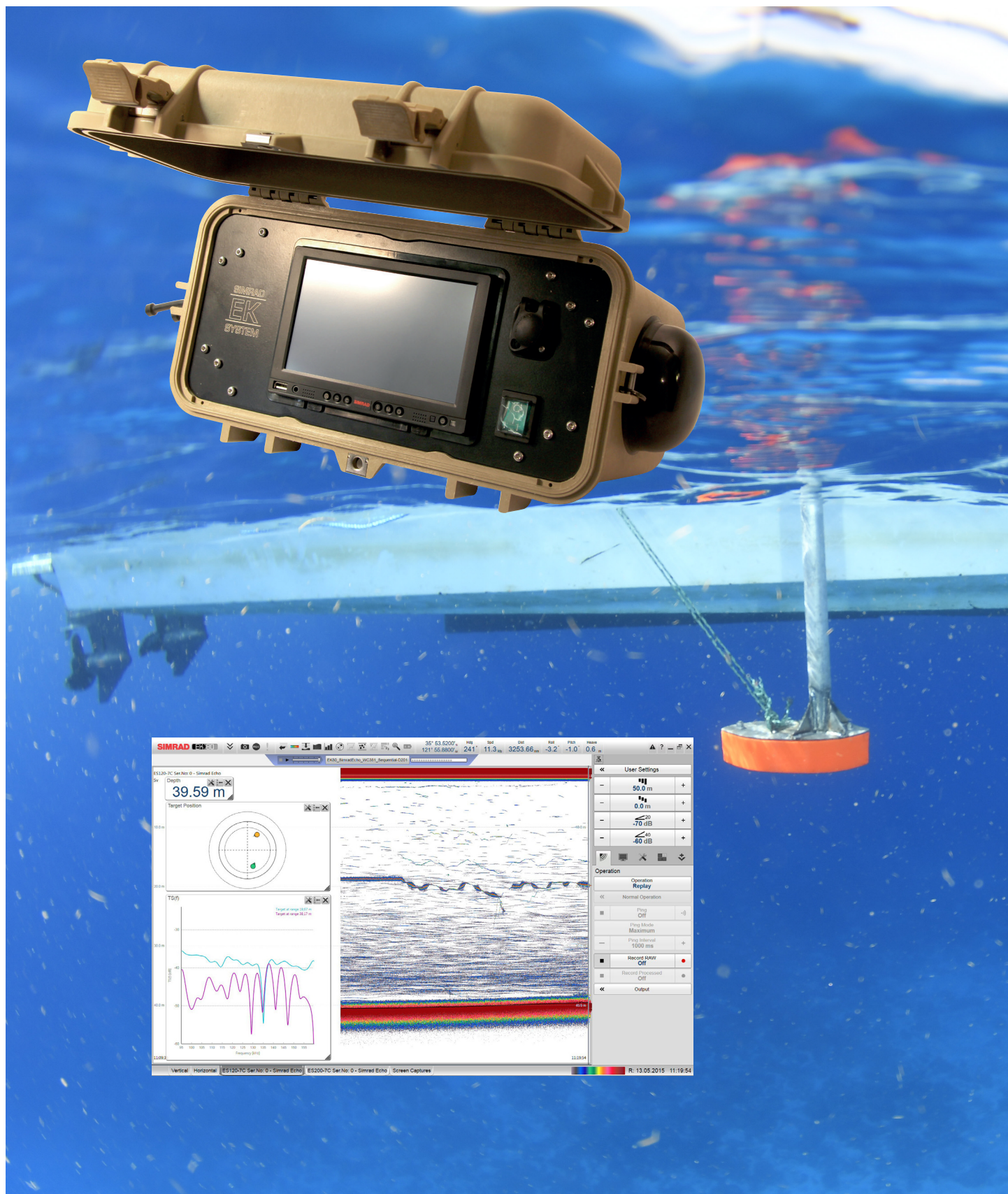


Simrad EK80 Portable

Portable scientific wide-band echo sounder



www.simrad.com

SIMRAD

TECHNOLOGY FOR SUSTAINABLE FISHERIES

The EK80 Portable is a complete echo sounder system for scientific use. It is an all in one rugged solution with compact PC, echo sounder and GPS. Built in WiFi lets you control and operate the system from any handheld device or laptop.

Description

The EK80 Portable is a compact solution that can be deployed from a small vessel in a rough environment. The system is built around the WBT Mini transceiver. It utilizes the EK80 software on an integrated computer with built in GPS. EK80 Portable can be used with remote desktop through WiFi. Thus can it be controlled by your handheld device or through any laptop on the WiFi network. As a backup, a small touch-screen is built in to the solution.

The system is compatible with any Simrad echo sounder transducer, and a selection of EK80 licenses are available based on frequency band.

The integrated transceiver supports chirp (FM) and continuous wave (CW) pulse forms. It contains four individual transceiver channels with multiplexing functionality. This allows for flexible setup of split or single beam transducer configurations.

The EK80 Portable is contained in a splash proof cabinet. It is easy to handle and quick to deploy.

The integrated computer is running the EK80 echo sounder software. This gives you all the functionality that EK80 has to offer.

RAW echo sounder data will be recorded to the integrated SSD disk or to USB flash drive that can easily be connected through the front panel.



EK80 Portable onboard a small boat

Typical applications

- Marine and Fresh water
- Portable setup
- Mobile surveys from small boats in lakes
- Fixed location fish counting in rivers
- Monitoring fish passage at hydropower dams
- Habitat mapping
- Plankton studies

Key features

- Ready to use
- Integrated computer and display
- Integrated GPS receiver
- Integrated WiFi
- A member of the Simrad EK80 wideband echo sounder family
- Rugged and compact design
- Splash Proof
- Four independent channels with built-in multiplexing available
- Built in calibration tool
- Wide range of transducers available



Technical specifications

The technical specifications and requirements provided are design values when operating with all sectors excited simultaneously.

In Kongsberg Maritime, we are continuously working to improve the quality and performance of our products. The technical specifications may be changed without prior notice.

Performance specifications

- CPU: Intel Gen4 Core i5-4010U 1.7GHz
- Storage: Samsung 850 Pro SSD series 256GB
- Memory: 8GB DDR3L-1600 SO-DIMM
- Graphics: Intel HD5000
- Display resolution: 1024 x 600
- Display size: 7"
- Number of USB Ports: 2
- Frequency range: 30 – 500 kHz
- Pulse duration: 64 – 2048 μ s
- Pulse forms: CW + FM (Linear up-sweep)
- Maximum transmit power: 1000 W @ 55 Ω
- Number of channels: 4 (With multiplexer: 8)
- Transducer options: Single beam/ Split beam

Weight and outline dimensions

- Outline dimensions:
 - Depth: 221 mm
 - Width: 417 mm
 - Height: 334 mm
- Weight: 8.6 kg

Power requirements

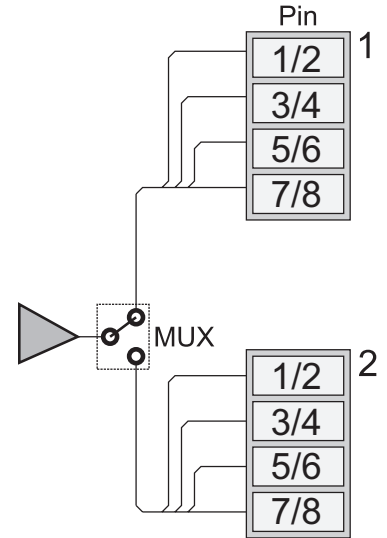
- Voltage requirement: 12 – 16 VDC
- Power consumption:
 - Active: 38 / 120 / 333 kHz: 22 / 19 / 19 W(*)
 - Passive: 18 W
- Maximum current: 5 A (Peak)

(* @ Maximum tx power, 1 ms pulse duration, and 2 ping/second)

Environmental requirements

- Operational temperature: 0 to 45 $^{\circ}$ C
- Storage temperature: -20 to 70 $^{\circ}$ C
- Ingress protection (IP) rating with lid closed: IP64
- Ingress protection (IP) rating with lid open: IP60
- Enclosure material: Polypropylene

All specifications are maximum ratings. We are continuously working to improve the quality and performance of our products. The technical specifications may be changed without prior notice.



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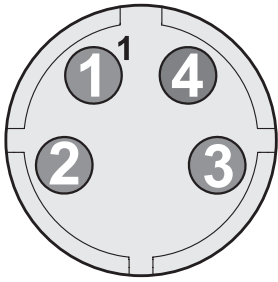
External connectors

The EK80 Portable has one power connector and two transducer connectors

- The top transducer connector is main connector.
- The lower transducer connector is for multiplexing.

Power

Connector type: Conxall 4 pin male Mini-Con-X

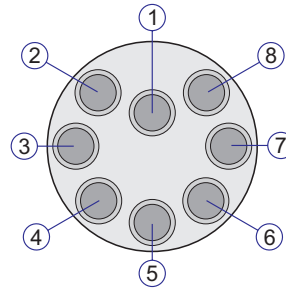


- 1 +12-16 VDC
- 2 Ground
- 3 Ground
- 4 +12-16 VDC

Seen towards the connector

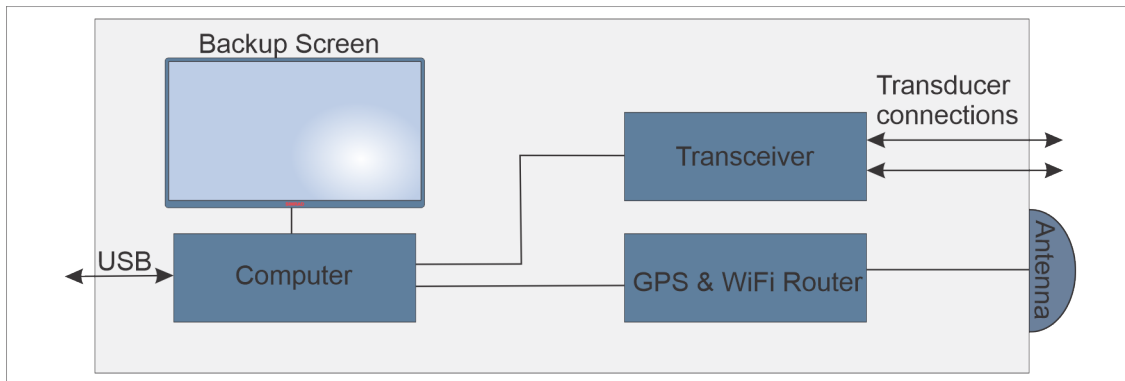
Transducer 8-pin

Connector type: MacArtney female MCBH8F



- 1 Channel 1+ (Black)
- 2 Channel 1- (White)
- 3 Channel 2+ (Red)
- 4 Channel 2- (Green)
- 5 Channel 3+ (Orange)
- 6 Channel 3- (Blue)
- 7* Channel 4+ (White/Black)
- 8* Channel 4- (Red/Black)

Seen towards the connector



System drawing with internal components