

SEAWARD HF20 SINGLE BEAM ECHOSOUNDER

Model: SWT-SB-HF20



ES 20 Pro is a high-frequency single-beam echosounder for bathymetric measurement and hydrographic surveying.

Operating Frequency

190–216 kHz

Depth Range

0.1–300 m, up to 450 m in LFM

Depth Accuracy

±10 mm + 0.1% h, 1 cm

Applications

- * Hydrographic Surveying
- * Waterway Bathymetry
- * Dredging Measurement
- * Hydrology Monitoring
- * River & Lake Survey

Key Features

- * High-Frequency Bathymetric Measurement
- * CW & LFM Pulse Modes
- * High Accuracy & Resolution
- * Integrated GNSS & Sensor Input
- * Rugged IP67 Processing Unit

SEAWARD ECHOBEAM COMPACT MBES



Beam Angle

5° ± 0.5°

Max Ping Rate

50 Hz

Consumption

10–32 VDC, 20 W

Interface

Network, WiFi, GNSS Serial,
AUX, SYNC

Category	Parameter	SWT-SB-HF20
Acoustic	Operating Frequency	190–216 kHz
	Beam Angle	5° ± 0.5°
	Depth Range	0.1–300 m, up to 450 m in LFM mode
	Depth Accuracy	±10 mm + 0.1% h
	Resolution	1 cm
	Max Ping Rate	50 Hz
	Sound Velocity Range	1370–1700 m/s, 0.1 m/s resolution
System	Pulse Mode	CW / LFM
	Power Supply	220 VAC / 10–32 VDC
	Power Consumption	20 W
	Output Formats	NMEA, ODOM, Knudsen, Bathy, Echotrac, DESO 25
Interface	External Interfaces	Power Supply, Transducer, Network Interface, WiFi, GNSS Serial, Auxiliary, SYNC
	Synchronization	PPS / Trigger
Mechanical	Processing Unit Size	240 x 176 x 66 mm
	Processing Unit Weight	2.4 kg
	Transducer Weight	1.9 kg
	Housing	High-strength aluminum alloy
	IP Rating	IP67
Environmental	Operating Temperature	-20°C to +60°C
	Humidity	95% non-condensing
Software	Acquisition Software	Windows / Android
	Main Functions	Navigation, data recording, 2D/3D display, map loading, data playback, planning line import/export

Software Key Features

* Windows & Android Field Software

Supports real-time acquisition, navigation, data recording, and echo image display.

* Smart Survey Planning & Playback

Supports 2D/3D display, S57 ENC import, DXF/KML line import, custom survey lines, and track playback.

* Built-in Data Quality Control

Provides alarms for shallow water, overspeed, abnormal collection status, and insufficient disk space.

* Intelligent Post-processing & Export

Supports one-click sampling, tide/sound velocity/draft/time delay correction, and export to HYPACK,



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