

SEAWARD ECHOTWIN DF30

Model: SWT-SB-HF20



SWT-SB-DF30 is a portable dual-frequency echosounder designed for bathymetric survey, waterway dredging, and hydrographic mapping, enabling high/low-frequency depth measurement and real-time sediment thickness indication.

Operating Frequency
200 kHz & 24 kHz

Depth Range
450 m @200 kHz LFM
1-2000 m @24 kHz

Depth Accuracy
 $\pm 1 \text{ cm} + 0.1\%h$ @200 kHz
 $\pm 10 \text{ cm} + 0.1\%h$ @24 kHz

- Applications**
- * Bathymetric Survey
 - * Hydrographic Mapping
 - * Waterway & Channel Survey
 - * Dredging Measurement
 - * Hydrological Survey

- Key Features**
- * Dual-Frequency Operation
 - * Wide Depth Capability
 - * Real-Time Sediment Thickness Display
 - * GNSS & Motion Data Integration
 - * Wireless Acquisition Software

SEAWARD ECHOBEAM COMPACT MBES



Beam Angle

5° ±0.5° @200 kHz
26° ±1° @24 kHz

Max Ping Rate

50 Hz

Sound Velocity Range

1370–1700 m/s, 0.1 m/s

Interface

Network, WiFi, GNSS Serial,
AUX, SYNC

Category	Parameter	SWT-SB-HF20
Acoustic	Operating Frequency	200 kHz & 24 kHz
	Beam Angle	5° ±0.5° @200 kHz; 26° ±1° @24 kHz
	Depth Range	200 kHz: 0.1–300 m, up to 450 m in LFM mode; 24 kHz: 1–2000 m
	Depth Accuracy	±1 cm + 0.1%h @ 200 kHz; ±10 cm + 0.1%h @ 24 kHz
	Resolution	1 cm @ 200 kHz; 10 cm @ 24 kHz
	Max Ping Rate	50 Hz
System	Pulse Mode	CW / LFM
	Power Supply	24 VDC
	Power Consumption	40 W
	Output Formats	NMEA, ODOM, Knudsen, Bathy, Echotrac, DESO 25
Interface	External Interfaces	Power Supply, Transducer, Network Interface, WiFi, GNSS Serial, Auxiliary, SYNC
	Synchronization	SYNC: PPS / Trigger; supports Trigger in/out
Mechanical	Processing Unit Size	240 x 176 x 66 mm
	Processing Unit Weight	2.7 kg
	Transducer Weight	5.3 kg
	Housing	Rugged compact housing
Environmental	IP Rating	IP67
	Operating Temperature	-20°C to +60°C
Software	Humidity	95% non-condensing
	Acquisition Software	Windows / Android
	Main Functions	Navigation, data recording, 2D/3D display, map loading, data playback, planning line import/export

Software Key Features

- * Navigation and survey data recording
- * Map loading with 2D / 3D display
- * Import of S57 ENC charts with feature query support
- * Import of DXF and KML survey planning lines
- * Alarm functions for shallow water, overspeed, abnormal acquisition status, and insufficient disk space
- * Quick survey-line switching with automatic saving of the previous line data
- * Data playback and survey track replay
- * Custom survey line layout, including parallel and perpendicular line planning
- * Multiple display orientation modes: North-up, heading-up, and line-up
- * Real-time display of key survey information, including coordinates, water depth, sound velocity, and echo images