

ORCA ACOUSTIC RECORDER

DESCRIPTION

Developed by RS Aqua, now working in collaboration with Seiche, the RS-ORCA is a broadband underwater acoustic recorder and processor that supports multiple hydrophone channels and extremely high sampling rates. Users can capture, record and process, in real-time, extremely rich underwater acoustic data sets.

The RS-ORCA is available in full size and mini versions, both supporting five synchronously sampled hydrophone inputs, configurable sampling rates and internal solid state storage.






The unit is easy to deploy and configure for virtually any underwater acoustic measurement scenario, and data can be recorded and processed autonomously or streamed in real-time via Ethernet.



SPECIFICATIONS

Number of channels: 5 – standard (more available upon request)
ADC number of bits: 16 – Standard (24 bit version available on request)
Dynamic range per channel: 95.5 dB (full bandwidth, better at lower sampling rates)
Sampling rates supported: 24 kHz, 48 kHz, 96 kHz, 192 kHz, 384 kHz, 768 kHz
Universal micro circular connectors for all 8 pin hydrophones – mounted on end cap, or connected with custom cable lengths
Customised hydrophone sensitivities and bandwidths available upon request
Memory: integrated 128 GB SD Card and 1 TB Solid State Drive (Fat32 formatted file system .wav) customised options available
Configurable recording, schedule and duty cycling
Comms: ethernet, high speed USB for download, RS422 for real time monitoring (RS232 available with external converter)
Operating temperature: -10°C to +50°C
Depth rating: 1000m (deeper on request)
Power: 10-18 V DC (external) Alkaline D Cells (internal user replaceable) 5 V DC (USB) Average consumption: 300 mW – 3W (depending on use)

APPLICATIONS

-  Acoustics detection, localisation and classification
-  Marine mammal studies and real-time monitoring
-  Multi-sensor ocean observation
-  Ambient noise monitoring
-  Wind and tidal energy monitoring