



GeoPulse 2

New Generation Sub-Bottom Profiler for Operation in Deeper Waters



OVERVIEW

The GeoPulse 2 is a significant upgrade for the industry-proven GeoPulse and GeoPulse + systems which are renowned for their reliability, ruggedness, ease of operation and flexibility.

The GeoPulse 2 deck unit is a drop-in replacement for the original GeoPulse transmitter (5430A) using the same deck cable and connector and also replaces the need for the separate GeoPulse Receiver (5210P). It offers a range of programable source signatures including CW, Chirp and Ricker and output power is continuously adjustable up to 10 kW.

The complete sub-bottom profiling system comprises of the GeoPulse 2 transceiver which is connected to either 4, 9 or 16 T135 transducers. 4 transducer arrangements can either be hull mounted or in an over-the-side mount assembly (Model 132). Hull mounting is used for 9 and 16 transducer configurations.

KEY FEATURES

- Frequency range 1.5-18 kHz
- Output power up to 10 kW
- Resolution 6 cm
- Penetration up to 80 m
- Over-the-side or hull mounted
- Third party software integration

APPLICATIONS

- Pipeline detection
- Geological surveys
- Dredging surveys
- Environmental surveys
- Buried object detection

Deck Unit

Mechanical	Aluminium case
Dimensions	Dimensions: 430 mm (W) x 440 mm (D) x 180 mm (H)
Environment	0 °C – 40 °C, -20 °C – 75 °C (storage) < 95 % RH, non-condensing (operation)
Connectors	Power in, deck cable (up to 50m), 3 x Serial PPS input, external trigger input
Indicators	Power on, HV, Time sync, Sonar Active, Cable Fault
Power	Power Input: 200-240 V AC, 20A, 50/60 Hz
Serial	3 x RS232 with overvoltage protection Range of baud rates selectable
PPS	TTL level, protected, edge selectable

Acquisition Software

Type	SonarWiz fully featured SBP with control interface (locked for use with GeoPulse 2)
Features	Control of all system parameters Full range of processing tools Data export in industry standard formats 1 year of maintenance included

Transducer

Output Power	10 kW peak (adjustable as % of full scale)
Waveforms	Pinger: Frequency & cycles select: 1 – 32 cycles (1 cycle steps). 1.5 – 18 kHz (0.1 kHz steps) Ricker: Spread spectrum (by highest frequency component). 4kHz – 15 kHz (0.1 kHz steps) Chirp: Range of sweeps available with 5, 10 or 15 kHz bandwidth, 8, 16 or 32 ms length, using frequencies between 1.5 kHz – 18 kHz
Rep Rate	Up to 20 PPS (waveform dependent)
Source Level	217 dB ±3 dB re 1 µPa @ 1 m (4 transducers) 221 dB ±3 dB re 1 µPa @ 1 m (9 transducers) 224 dB ±3 dB re 1 µPa @ 1 m (16 transducers)
Beamwidth	55° using 3.5 kHz (combined mode, 4 transducers) 40° using 3.5 kHz (combined mode, 9 transducers) 30° using 3.5 kHz (combined mode, 16 transducers)
Res. & Pen.	Resolution up to 6 cm Penetration Up to 80 m (fine clay), up to 20 m (sand)
Acquisition	Dual channel, 800 kHz front end sampling, 50/100 kHz sample output, 24 bit

Over-the-side mount assembly (Model 132B)

Physical	Dimensions: 700 mm (L) x 520 mm (W) x 460 mm (H) Weight 120 kg
Mounting Pole	One section: 1830 mm Two sections: 3600 mm Three sections: 5370 mm
Transducer Arrays	2 x 2 (4) 3 x 3 (9) 4 x 4 (16)

Specifications subject to change without notice. E&OE