

Appendix 1

Conceptual scheme of the autonomous buoy system equipped of scanning sonar Simrad SL 35, a web of underwater camera and a module of data transmission. The sonar parameters could be set and the data transmitted at short distance (WIFI transmission module) or at long distance (satellite transmission module) from a platform close to the buoy using a WIFI connection (first buoy prototype : Fig. Appendix 1) or from the land using satellite communication (Fig. 3).

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Figure Appendix 1. Block diagram. Technical legend of the main Fadio buoy component, linked (wireless transmission/reception) to a PC control. 1: Alimentation 24 volt. 2: Connection RJ 45 (Ethernet). 3: Antenna connector. 4: Fan less motherboard (PCB PC). 5: Module power manager (12V, 8V, 5V). 5b: Module data converter analog/digital, transmission signal. 6: Battery (floating mode); plumb, 2V by element. 7: Web of underwater camera D-link system. 8: Transducer, scanning sonar model Simrad SL35 (200 kHz); motion sensor. 9: Multiplexer USB data. 10: N-port serial interface (1510-IP). 11: N-port optical module (1510-IPO). 12: Antenna; modularly WIFI (e.g. 2.6 GHz) or satellite (e.g. iridium).

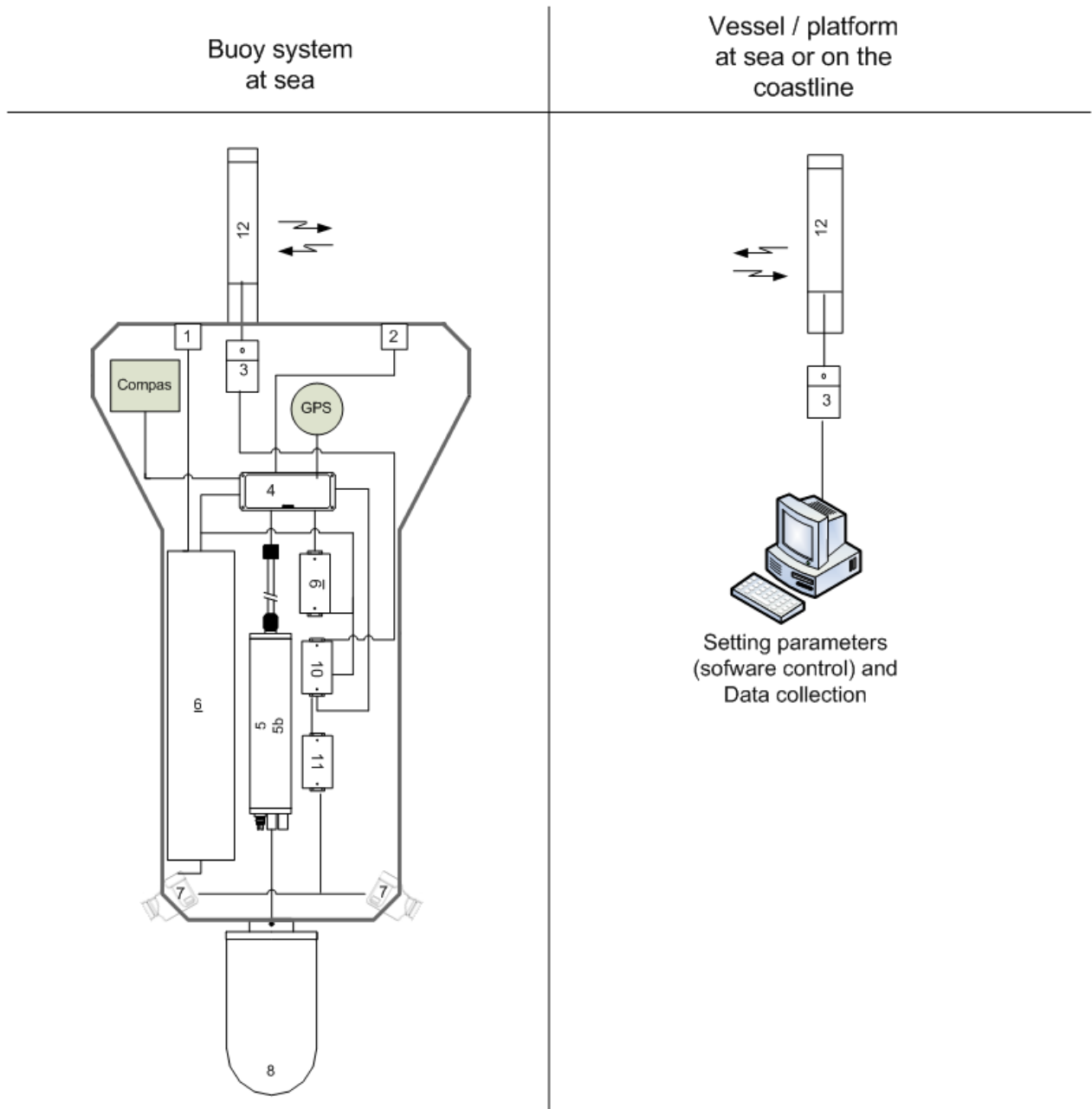


Fig. Appendix 1