

OPERATIONAL DESCRIPTION

Description of circuit functions (antenna, ground system,...)

The product allows to send audio informations at any time directly to swimmers carrying an associated receiver included in a snorkel. The microphone and line inputs allow to broadcast music, voice or other pre-recorded messages. The signal (FM continuous emission) can be check by using the headphone output. The product is portable and operates with batteries.

The product is made up with 1 metallic case containing 1 PCB, battery housing (4xLR06/AA), 1 ON/OFF switch (with integrated led), 3 stereo 3.5mm jack plugs (2 inputs, 1 outputs) and 1 antenna connector.

The antenna is 40cm length, fixed on a non-standard dedicated connector.

The PCB contains the modules described in §2.1. It is linked to the case by a metallic contact. All cables are shielded.

The product receives audio signals by the inputs LINE and MIC. These signals are mixed and amplified by the audio module. The central frequency is modulated by audio signal and then sent by the RF module.

The voltage supply monitoring module provides an auto switch-off when batteries are empty. The operation indicator module provides the led to flash. The voltage regulator module provides stabilized supply for RF components.