

Title (en)
1-3 COMPOSITE STRUCTURE HIGH FREQUENCY SONAR ANTENNA

Title (de)
1-3-VERBUNDSTRUKTUR MIT HOCHFREQUENZ-SONARANTENNE

Title (fr)
ANTENNE SONAR HF A STRUCTURE COMPOSITE 1-3

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Abstract (en)
[origin: WO2005014185A1] The invention relates to an antenna structure which can operate at a high frequency and which is made of ceramic piezoelectric contacts grouped together forming independent sensors. According to the invention, the structure of the antenna consists of a set of contacts disposed on a rear plate. The contacts belonging to one sensor are isolated from the contacts belonging to other sensors by means of interposed sheets which are made of a high acoustic decoupling material such as polyurethane. The entirety thereof is immersed in a dielectric filling matrix made of a dielectric material having good piezoelectric and mechanical properties such as an epoxide resin, for example. Integration of interposed sheets between various sensors makes it possible to significantly improve the acoustic decoupling of the inventive antenna in comparison with currently existing antennae of the same type. The antenna can be used in high frequency sonars.

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