

ABSTRACT**METHOD AND SYSTEM FOR THE DISTRIBUTED PhDOA, PwDOA
LOCATION OF EMITTER SOURCES**

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The invention relates to a method for carrying out distributed location of an electromagnetic source by using a plurality of sensors that are spread over the geographical area of interest and that carry out, using two reception channels:

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- an estimation of the received power,
- an estimation of the differential phase between the two reception channels;

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The data estimated at each of the sensors are then utilized to carry out the estimation of the power difference of arrival (PwDOA) and then of the position of the various intercepted emissions. The first part of the location algorithm utilizes the PwDOA technique and a margin of uncertainty linked to the propagation models in order to reduce the potential location areas of the source and therefore eliminate numerous ambiguities. The second part of the location algorithm selects, in the potential location areas, the area in which the intersections of the lines of sight is densest, and the barycentre of the points of the intersections of the lines of sight in this area gives an estimation of the position of the source to be located.

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25 Figure 3 to be published