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(54) **WIRELESS POSITION LOCATION AND TRACKING SYSTEM**

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G01S 3/02 (2006.01)
H04Q 7/20 (2006.01)

(52) **U.S. Cl.** **342/464**; 455/456.5

(58) **Field of Classification Search** 342/463, 342/464, 465, 457; 455/456.1, 455, 456.5
See application file for complete search history.

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(57)　　　　　　　**ABSTRACT**

Techniques for accurate position location and tracking suitable for a wide range of facilities in variable environments are disclosed. In one aspect, a system for position location comprises a plurality of sensors (e.g. a network monitor, an environment sensor) for generating a measurements of a plurality of sources, a plurality of objects or tags, each object generating measurements of the plurality of sources, and a processor for receiving the measurements and generating a position location for one or more objects in accordance with the received measurements. In another aspect, a position engine comprises a mapped space of a physical environment, and a processor for updating the mapped space in response to received measurements. The position engine may receive second measurements from an object within the physical environment, and generate a position location estimate for the object from the received second measurements and the mapped space. Various other aspects are also presented.

2 Claims, 22 Drawing Sheets
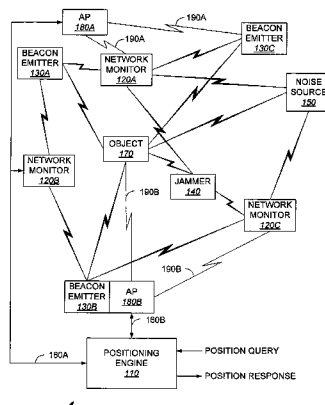
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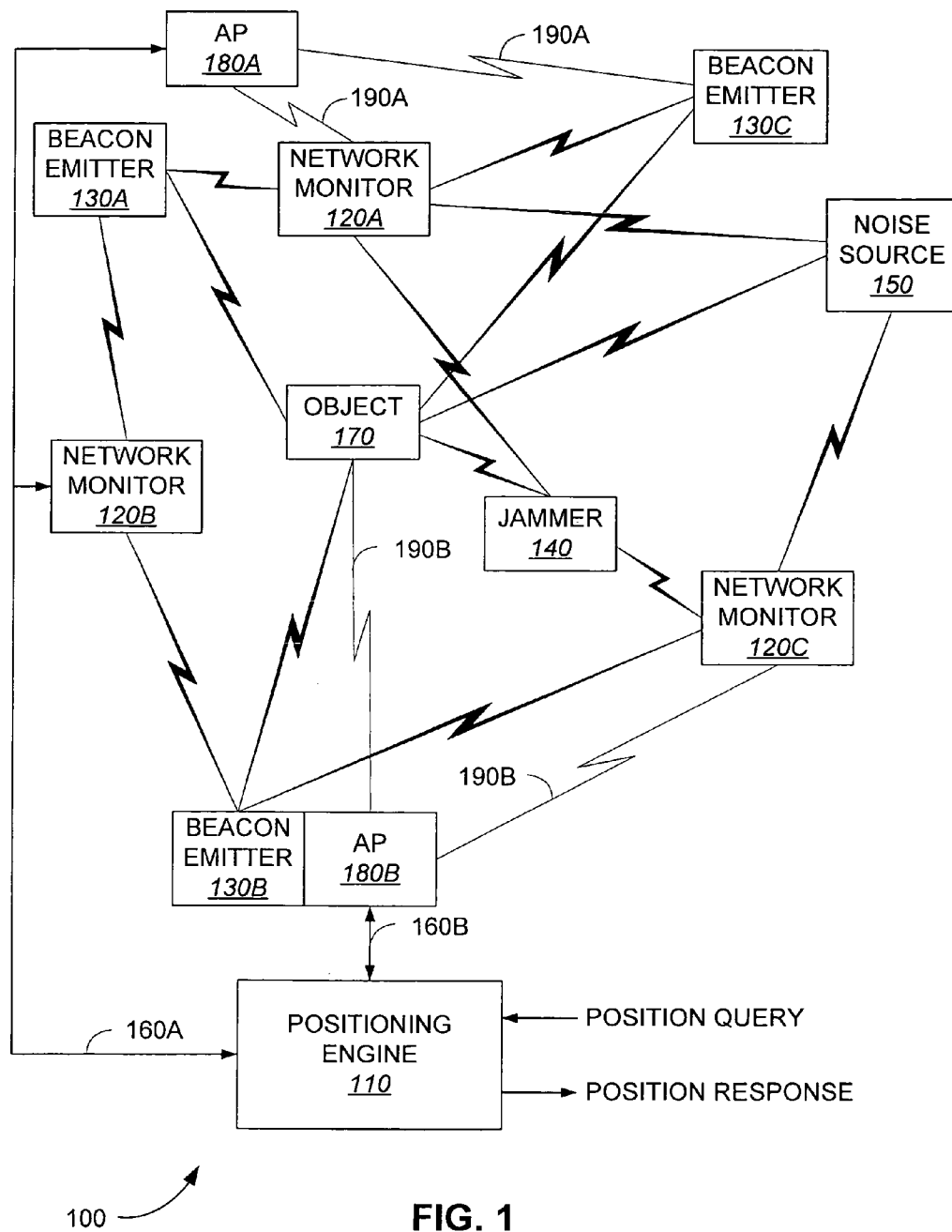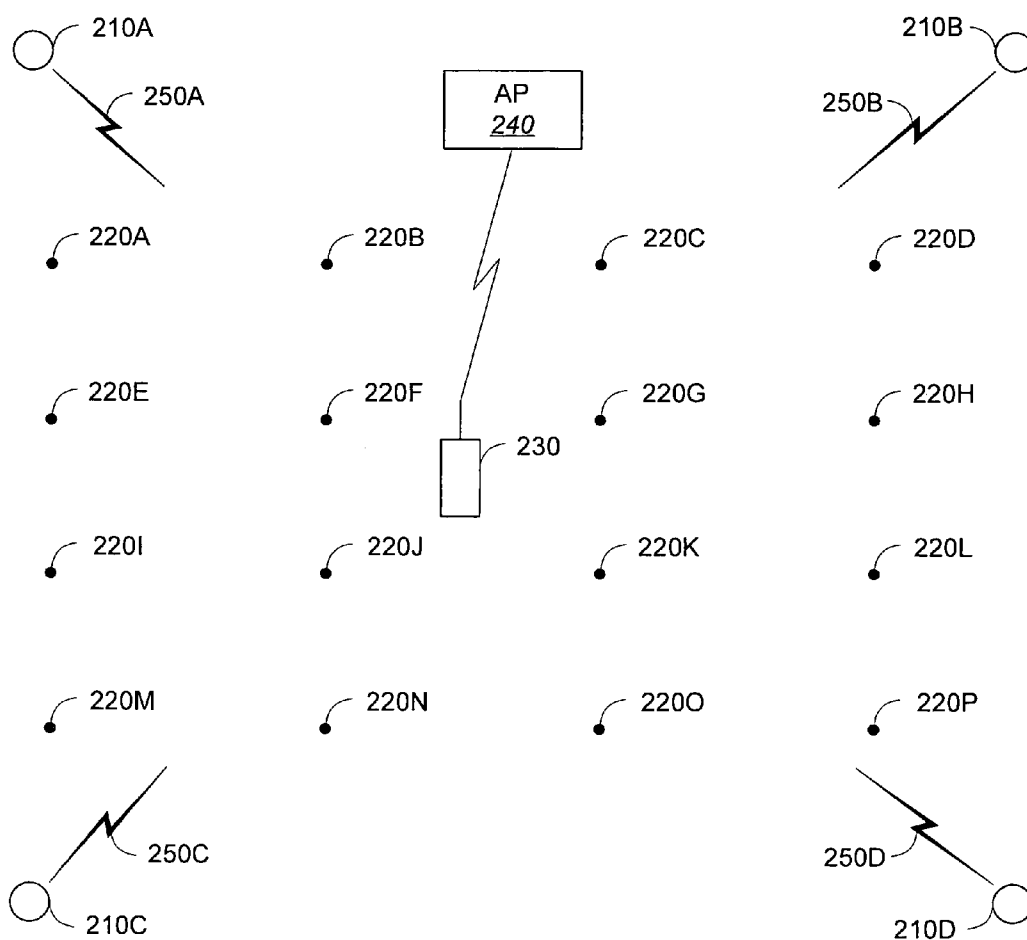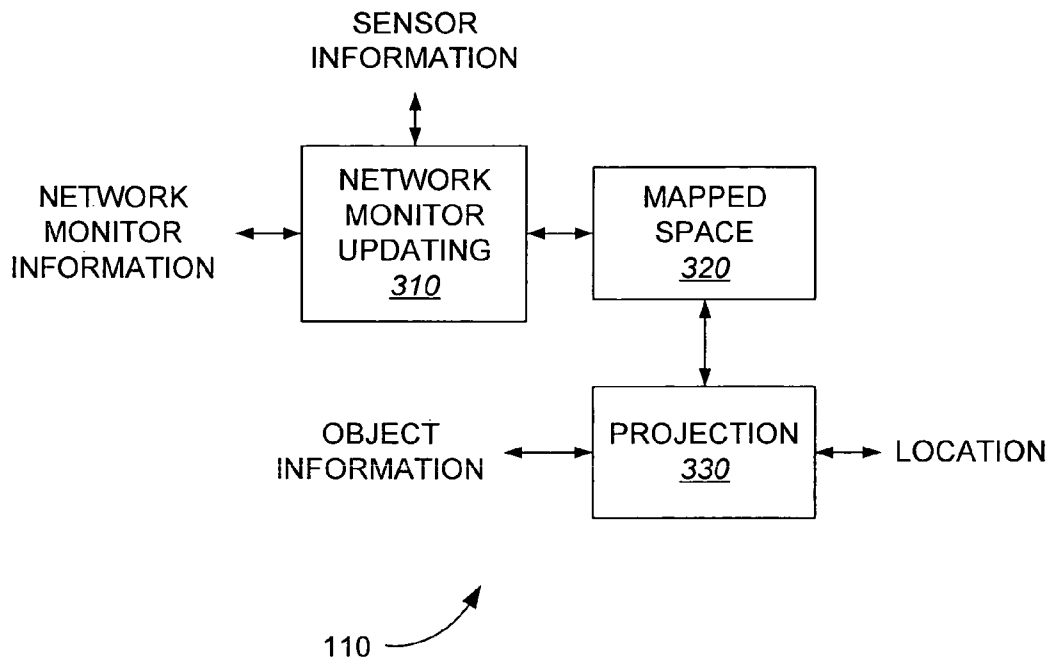
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FIG. 1

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PRIOR ART

FIG. 2

FIG. 3

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