



- [54] **CELLULAR TELEPHONE LOCATION SYSTEM**
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- [73] Assignee: **Associated RT, Inc., Pittsburgh, Pa.**
- [21] Appl. No.: **59,248**
- [22] Filed: **May 7, 1993**
- [51] Int. Cl.⁵ **G01S 1/24; G01S 3/02; H04M 11/00**
- [52] U.S. Cl. **342/387; 342/457; 379/58**
- [58] Field of Search **342/387, 457, 35; 379/58, 59, 60, 62; 364/449**

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Primary Examiner—Gregory C. Issing
Attorney, Agent, or Firm—Woodcock Washburn Kurtz Mackiewicz & Norris

[57] ABSTRACT

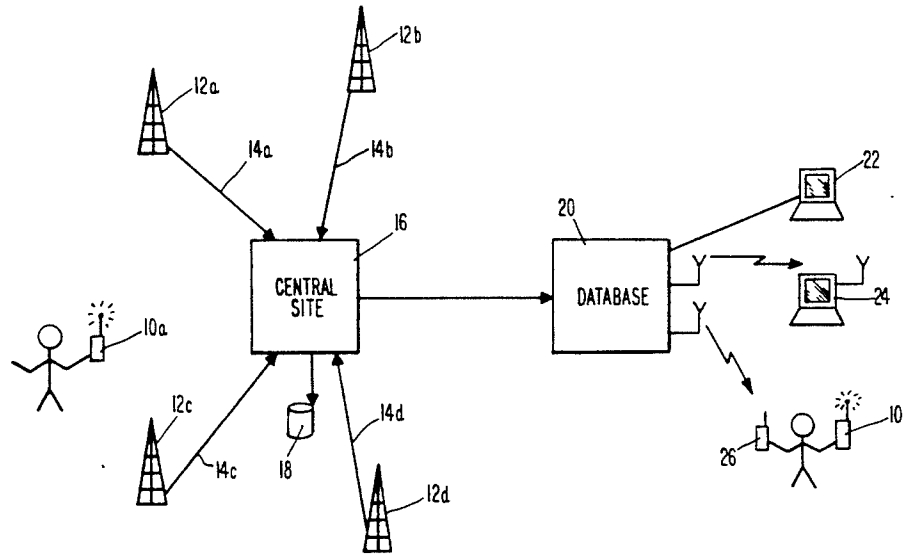
A cellular telephone location system for automatically recording the location of one or more mobile cellular telephones comprises three or more cell site systems 12. Each cell site system is located at a cell site of a cellular telephone system. Each cell site system includes an antenna that may be mounted on the same tower or building as the antenna employed by the cellular telephone system and equipment that may be housed in the equipment enclosure of the corresponding cell site. The cell site systems are coupled via T1 communication links 14 to a central site 16. The central site may be collocated with the cellular telephone system's MTSO. The central site 16 is further coupled to a database 20, which may be remotely located from the central site and made available to subscribers.

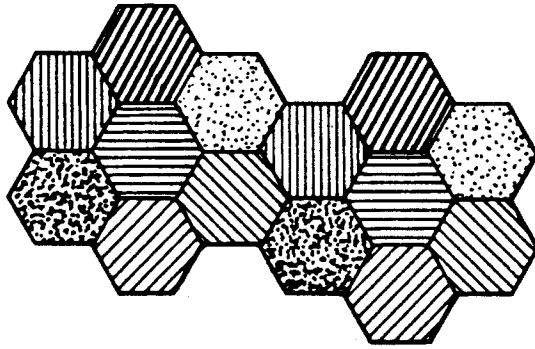
45 Claims, 15 Drawing Sheets

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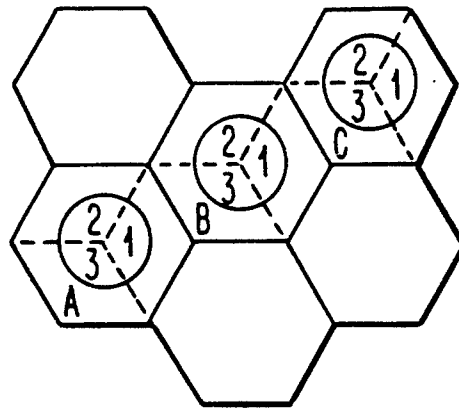
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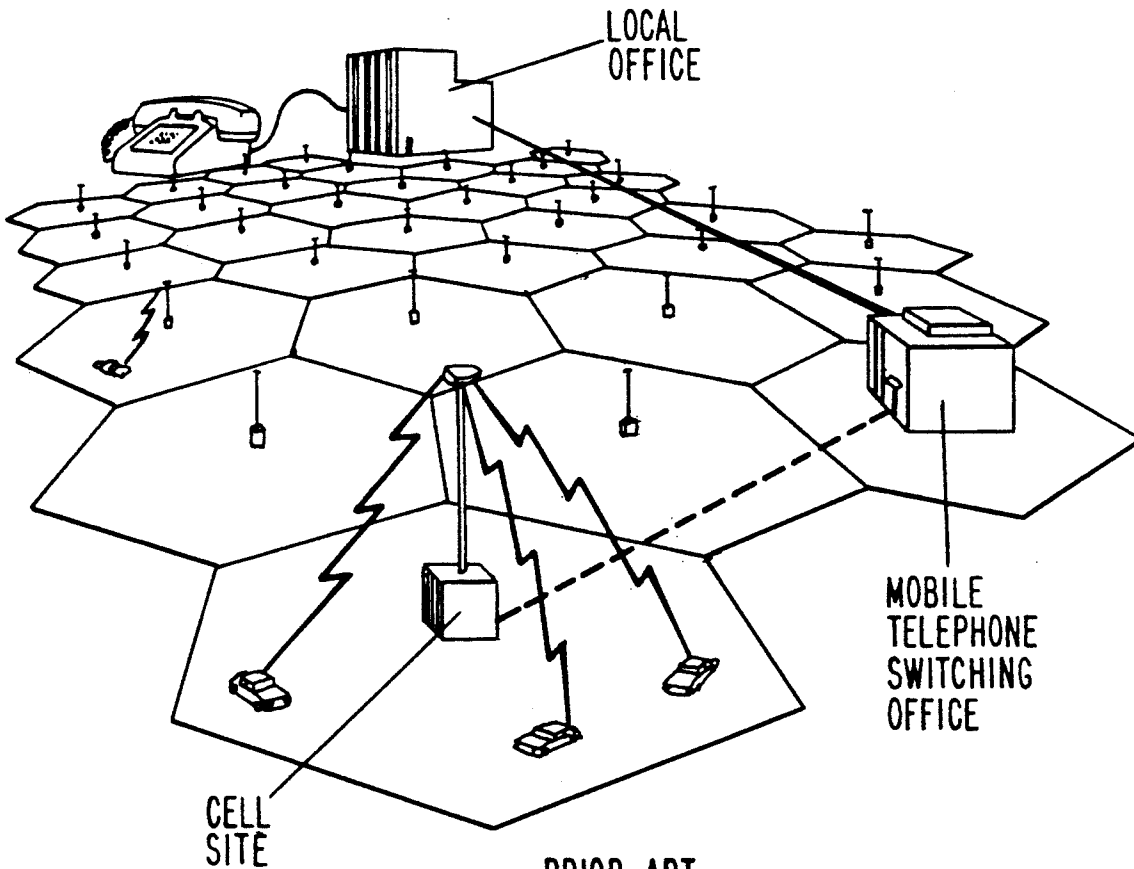
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Fig. 1A



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Fig. 1B



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Fig. 1C

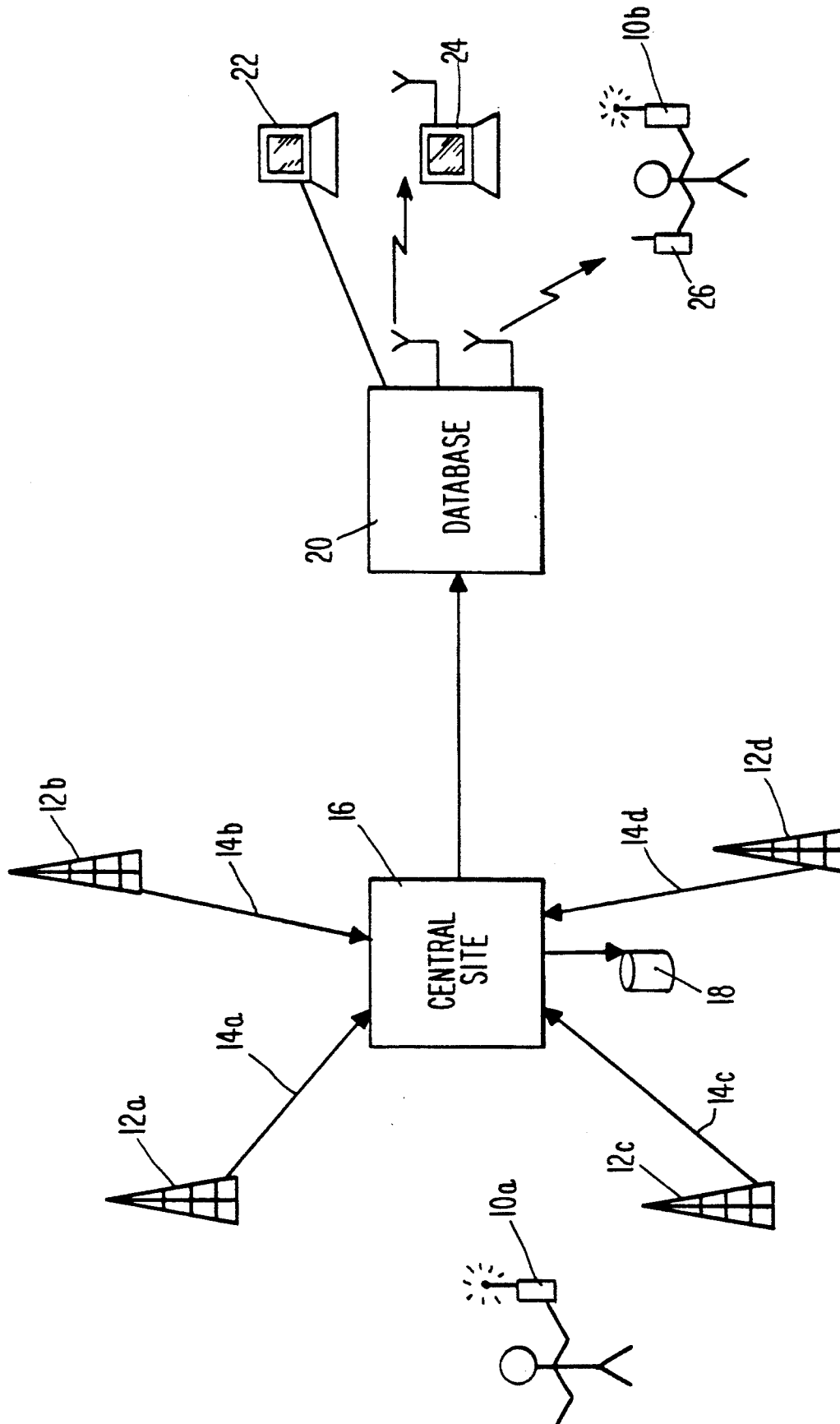


Fig. 2

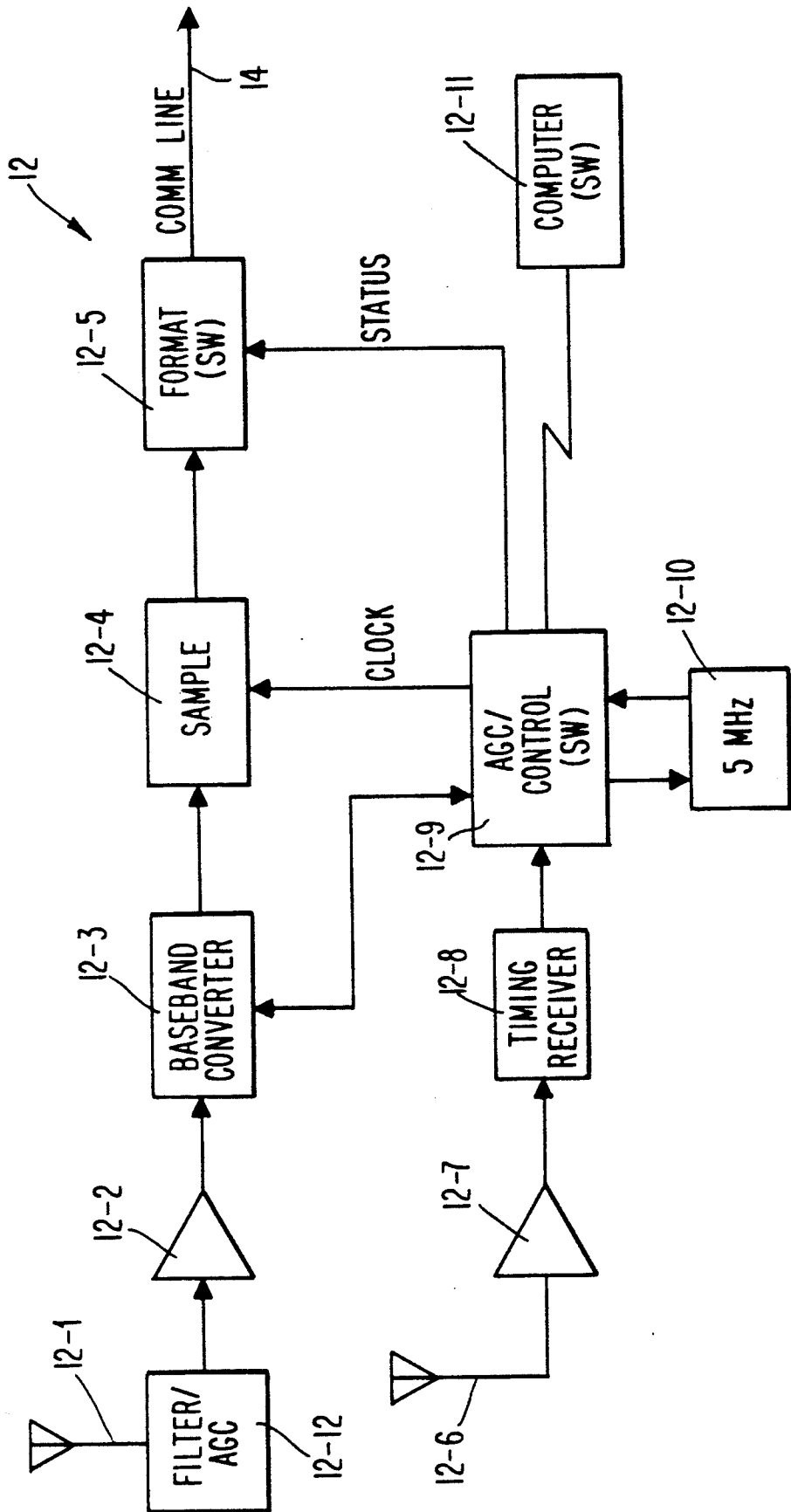
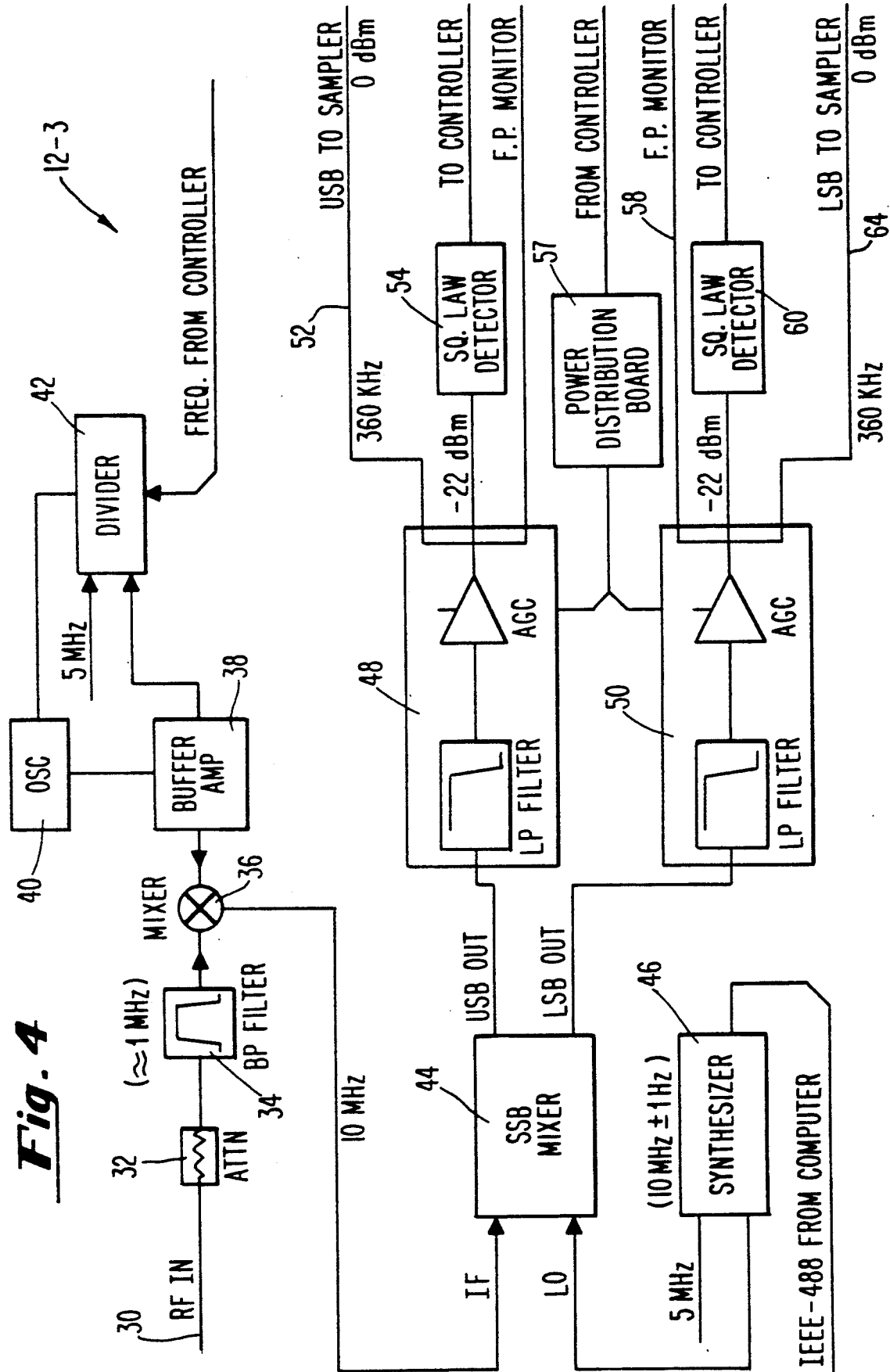


Fig. 3

Fig. 4



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