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**Shellhammer et al.**

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(54) **COEXISTENCE TECHNIQUES IN WIRELESS NETWORKS**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 499 days.

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(22) Filed: **Nov. 16, 2000**

**Related U.S. Application Data**

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(51) **Int. Cl.**  
**H04B 7/00** (2006.01)

(52) **U.S. Cl.** ..... **455/41.2; 455/426.1**

(58) **Field of Classification Search** ..... **455/41.1-41.3, 455/561, 414.1, 414.4, 454, 462, 463, 554.1, 455/554.2, 552.1, 426.1, 426.2, 435.1-435.3, 455/448, 450, 466, 560, 556.1, 90.1; 343/701, 343/702**

See application file for complete search history.

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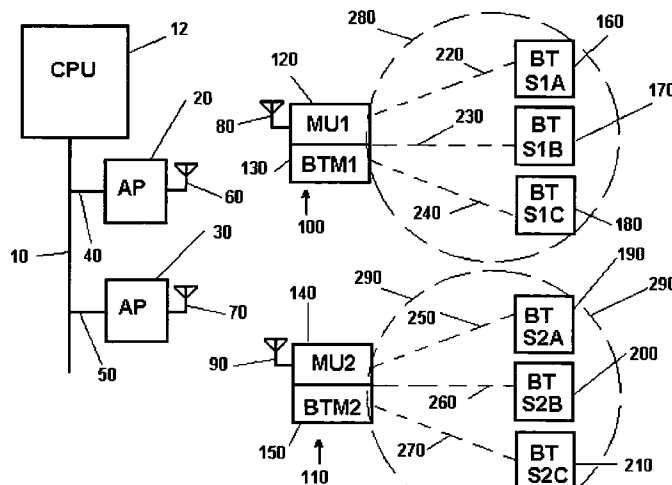
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(57) **ABSTRACT**

Techniques are provided for frequency coordination among two different wireless network protocols, such as the IEEE 802.11 and Bluetooth protocols, operating in proximity with one another. Coordination is accomplished by the use of a first radio transceiver operating in accordance with a first communication protocol (which may be the 802.11 protocol) and using a frequency band (which may be the 2.4 GHz band), a base station connected to a wired network and operating in accordance with the first communication protocol, a second radio transceiver operating in accordance with a second communication protocol (which may be the Bluetooth protocol) and using the frequency band, and a coordinator associated with the base station for, in turn, activating the first radio transceiver, deactivating the first radio transceiver, activating the second radio transceiver, and deactivating the second radio transceiver.

**31 Claims, 4 Drawing Sheets**



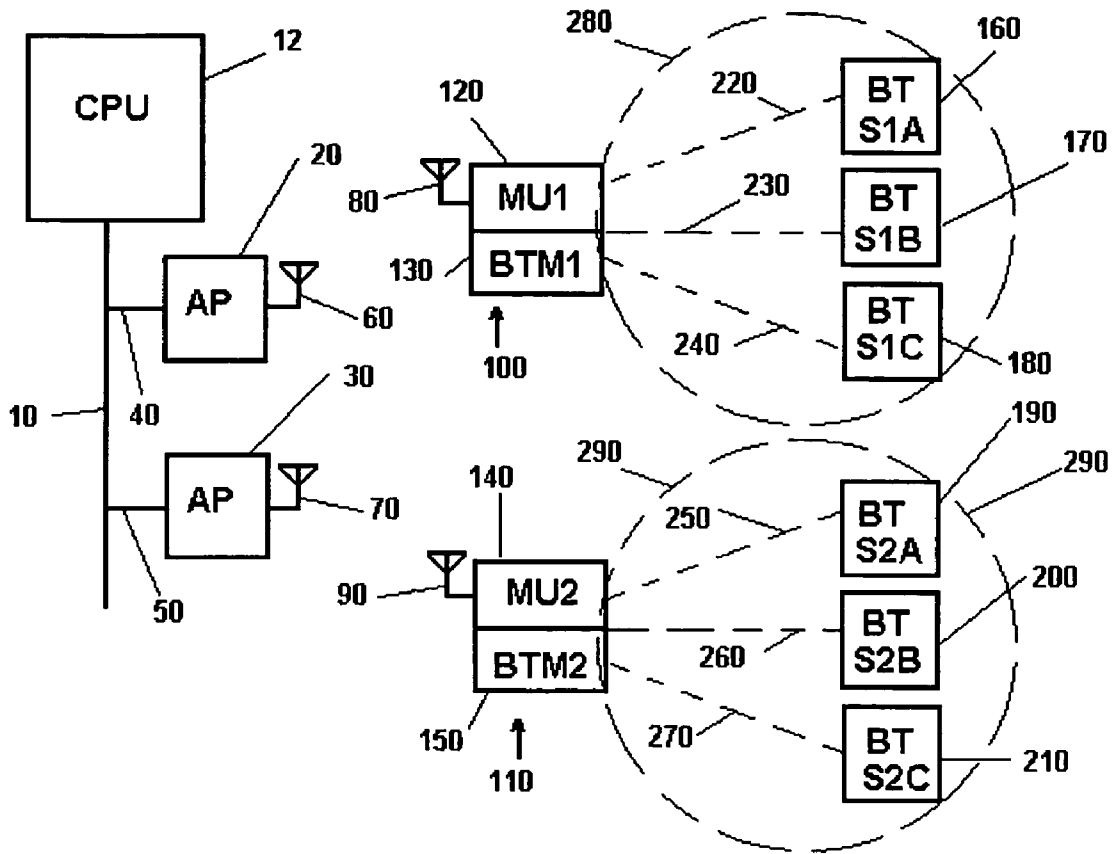


FIG. 1

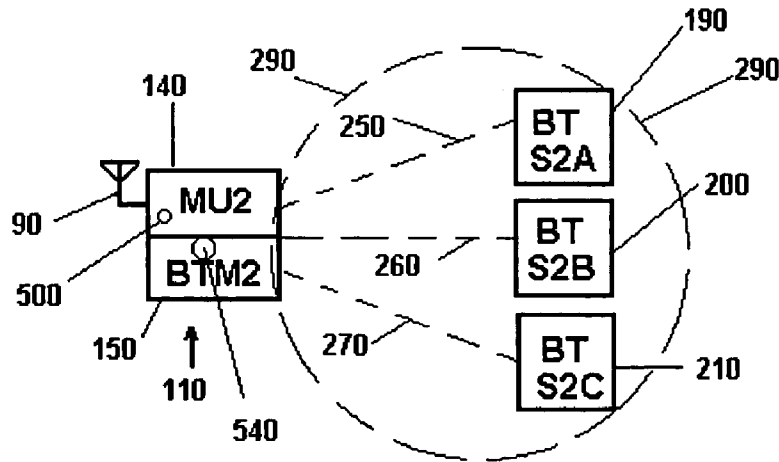


FIG. 2

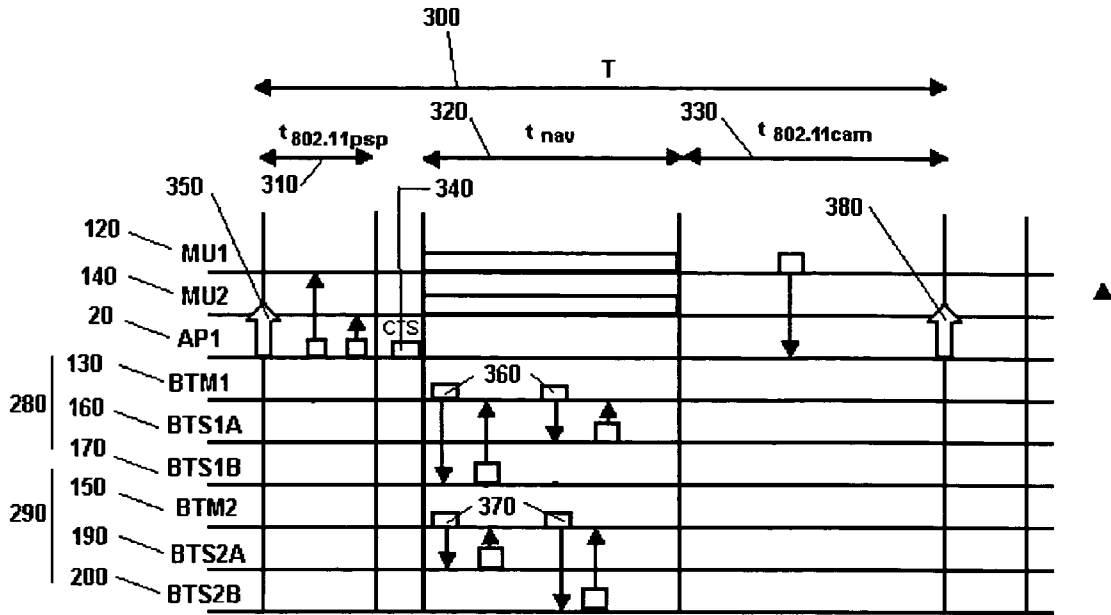


FIG. 3

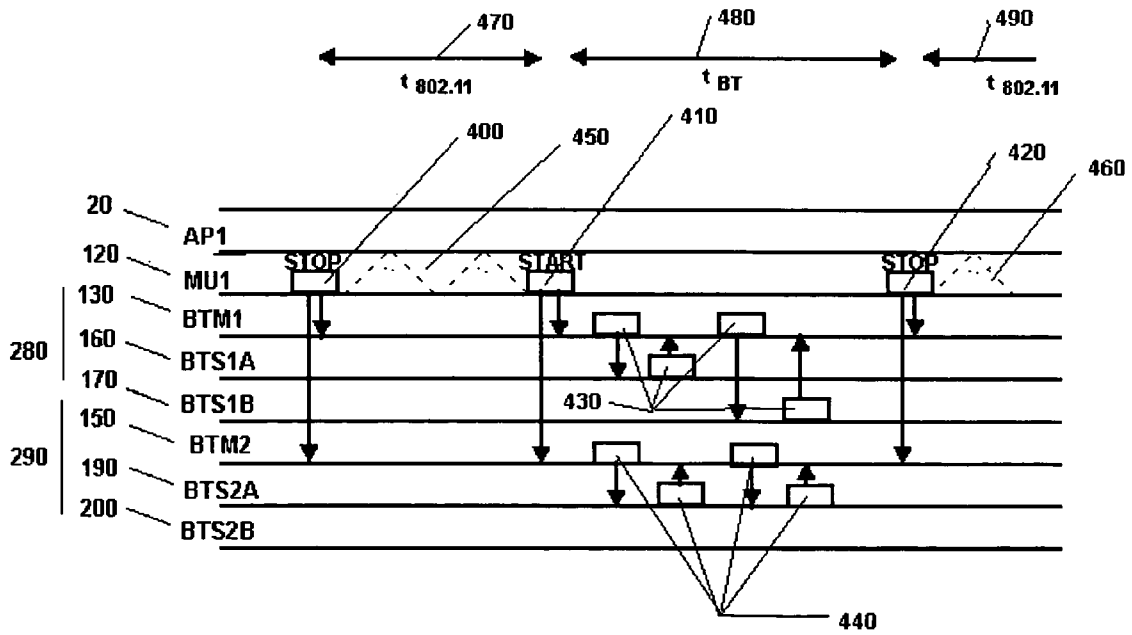


FIG. 4

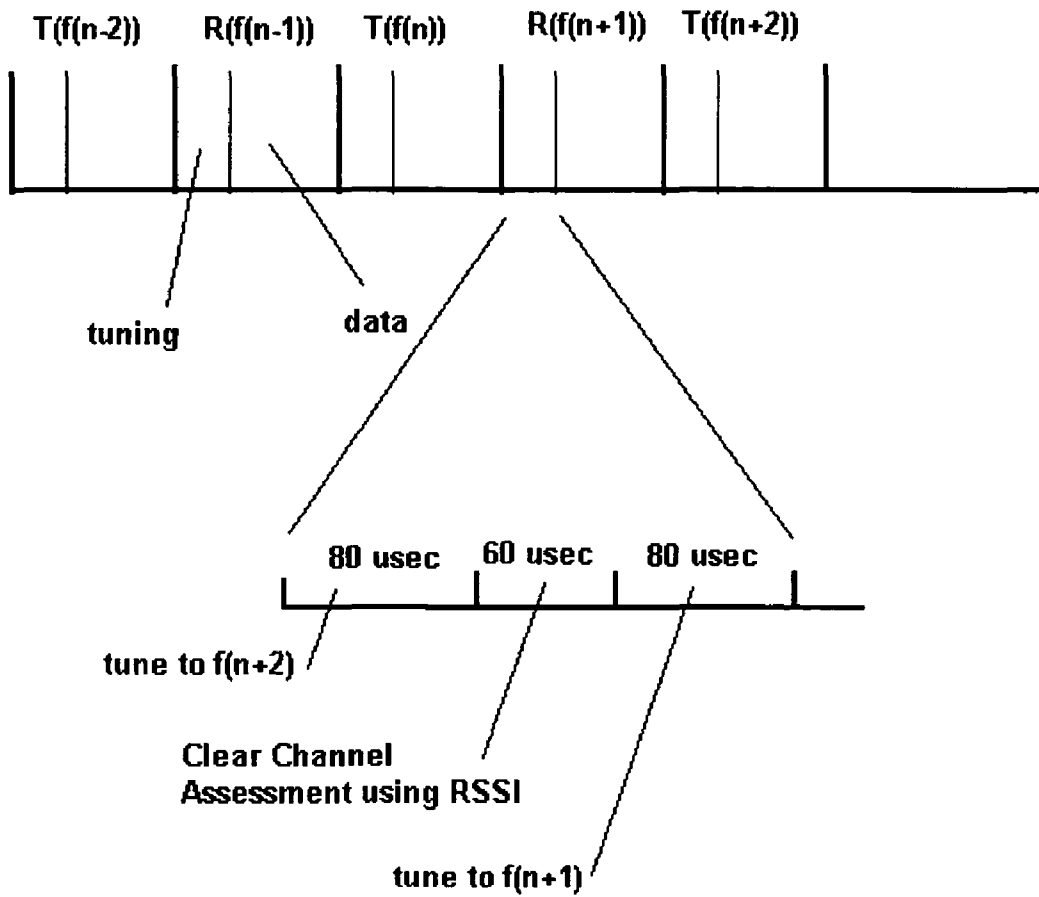


FIG. 5

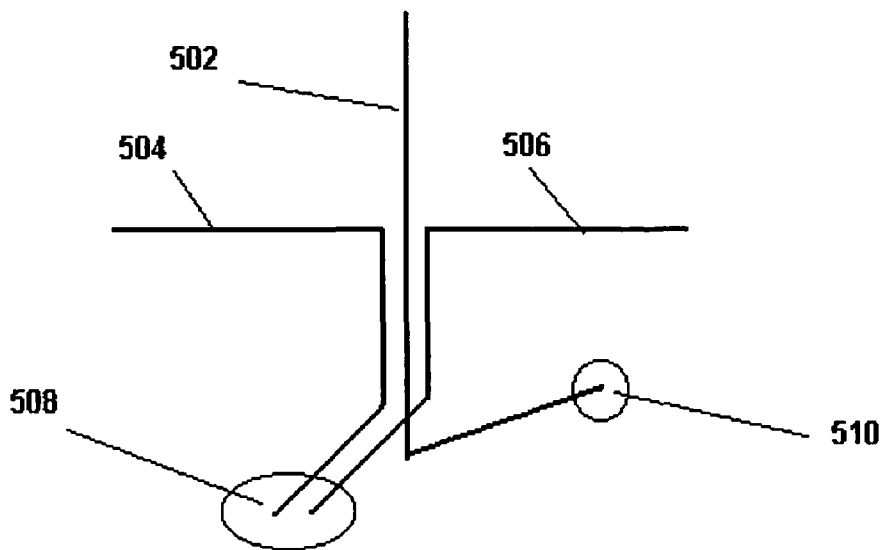


FIG. 6

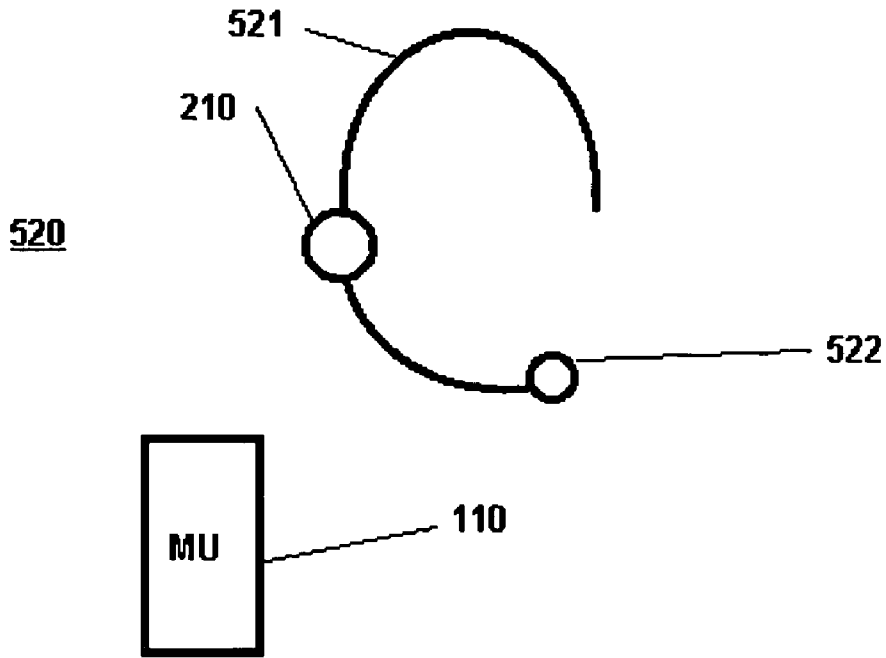


FIG. 7

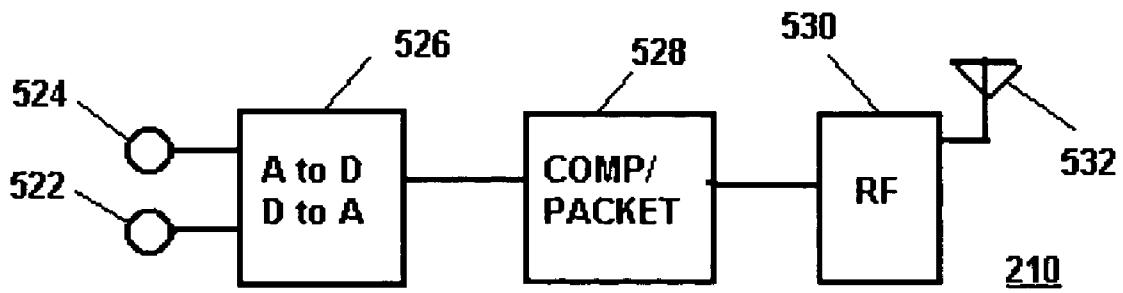


FIG. 8

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