

United States Patent [19]

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Andrews

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[54] **MULTIFORMAT AUTO-HANDOFF COMMUNICATIONS HANDSET**

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Related U.S. Application Data

[63] Continuation of Ser. No. 48,045, Apr. 12, 1993, abandoned.

[51] **Int. Cl.⁶** **H04B 1/38**

[52] **U.S. Cl.** **370/334; 455/84**

[58] **Field of Search** 455/33.2, 33.3, 455/33.4, 34.1, 34.2, 54.1, 56.1, 89, 84; 379/60

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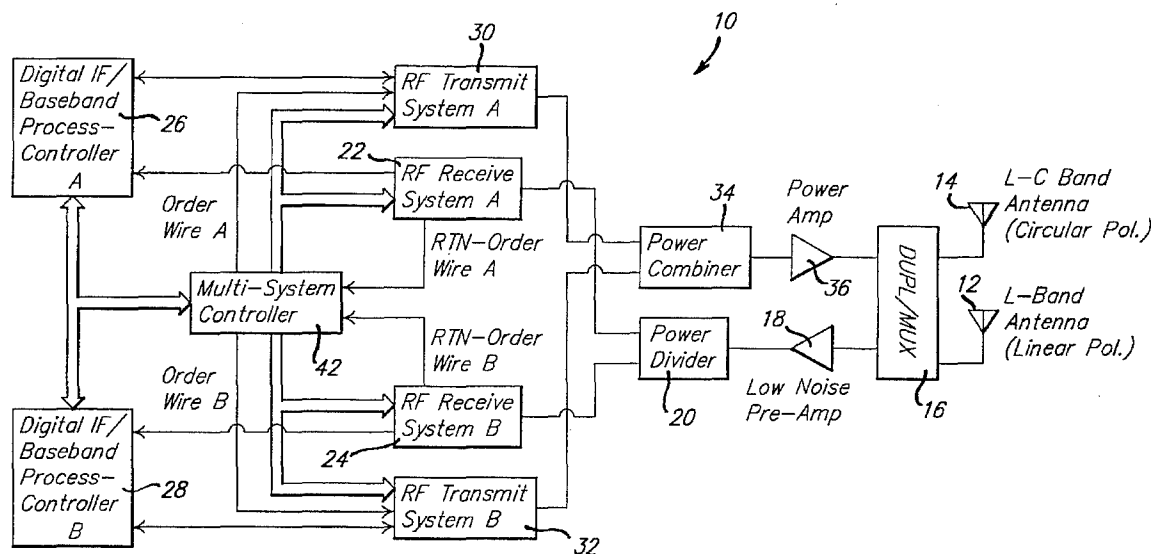
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[57] **ABSTRACT**

Disclosed is an apparatus and method for supporting communications and handoffs between multiple signal formats at multiple carrier frequencies. Antenna circuitry which includes a linearly polarized antenna and a circularly polarized antenna is utilized to receive and transmit the multiple signal formats at the multiple carrier frequencies simultaneously. A pair of RF signal paths each including RF transmit circuitry, RF receive circuitry and RF processing capabilities are utilized to support simultaneous communications between two signal formats. A multisystem controller in communications with each RF signal path initiates and completes handoffs between the multiple signal formats utilizing both RF signal paths to achieve uninterrupted communications across a large service coverage area.

39 Claims, 4 Drawing Sheets



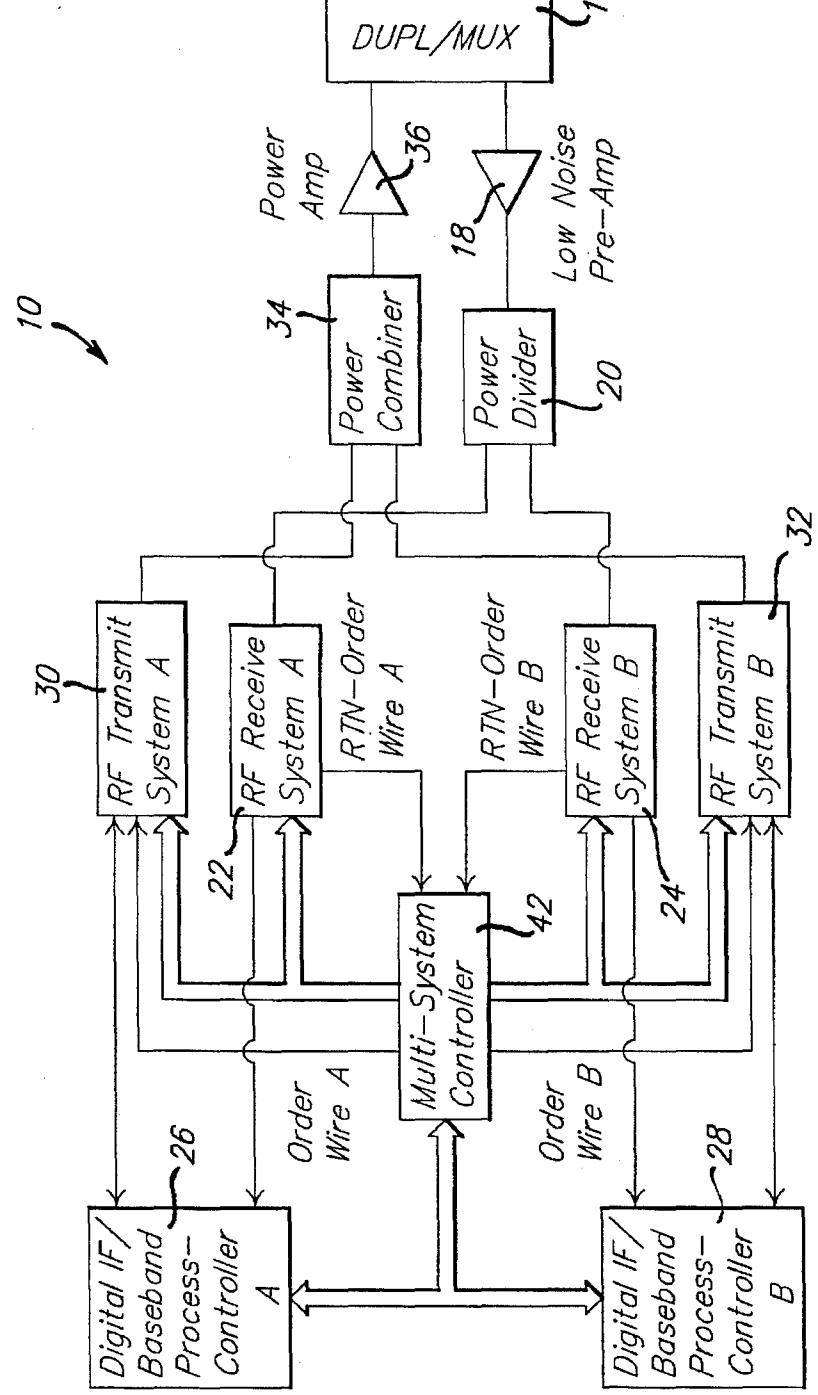
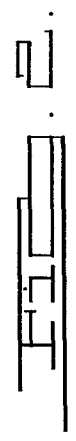
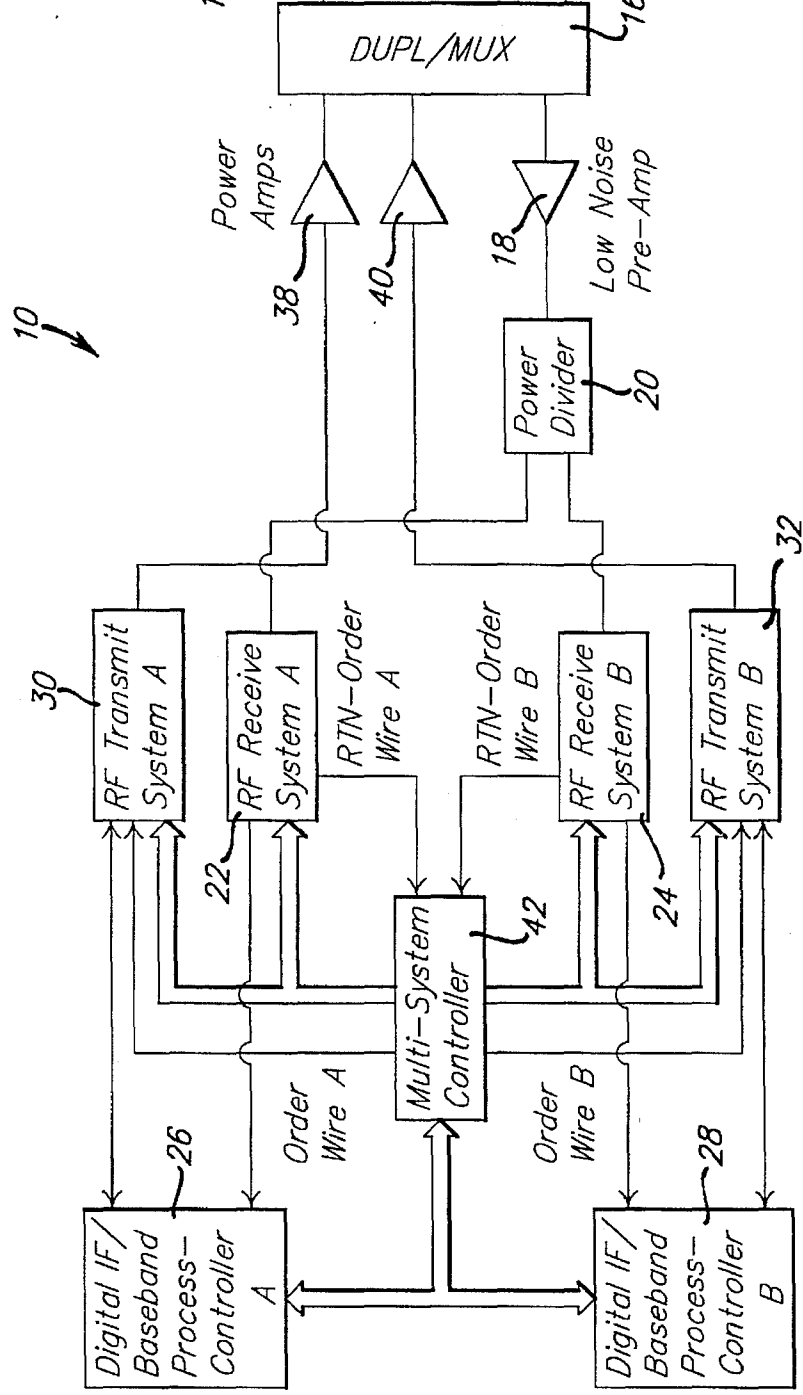
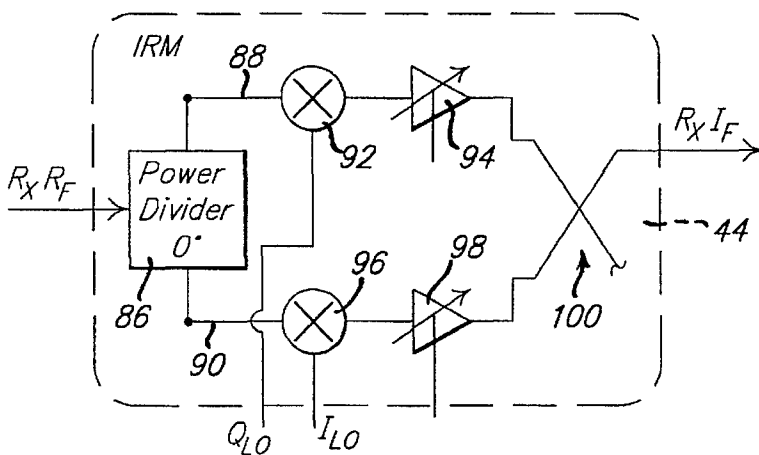
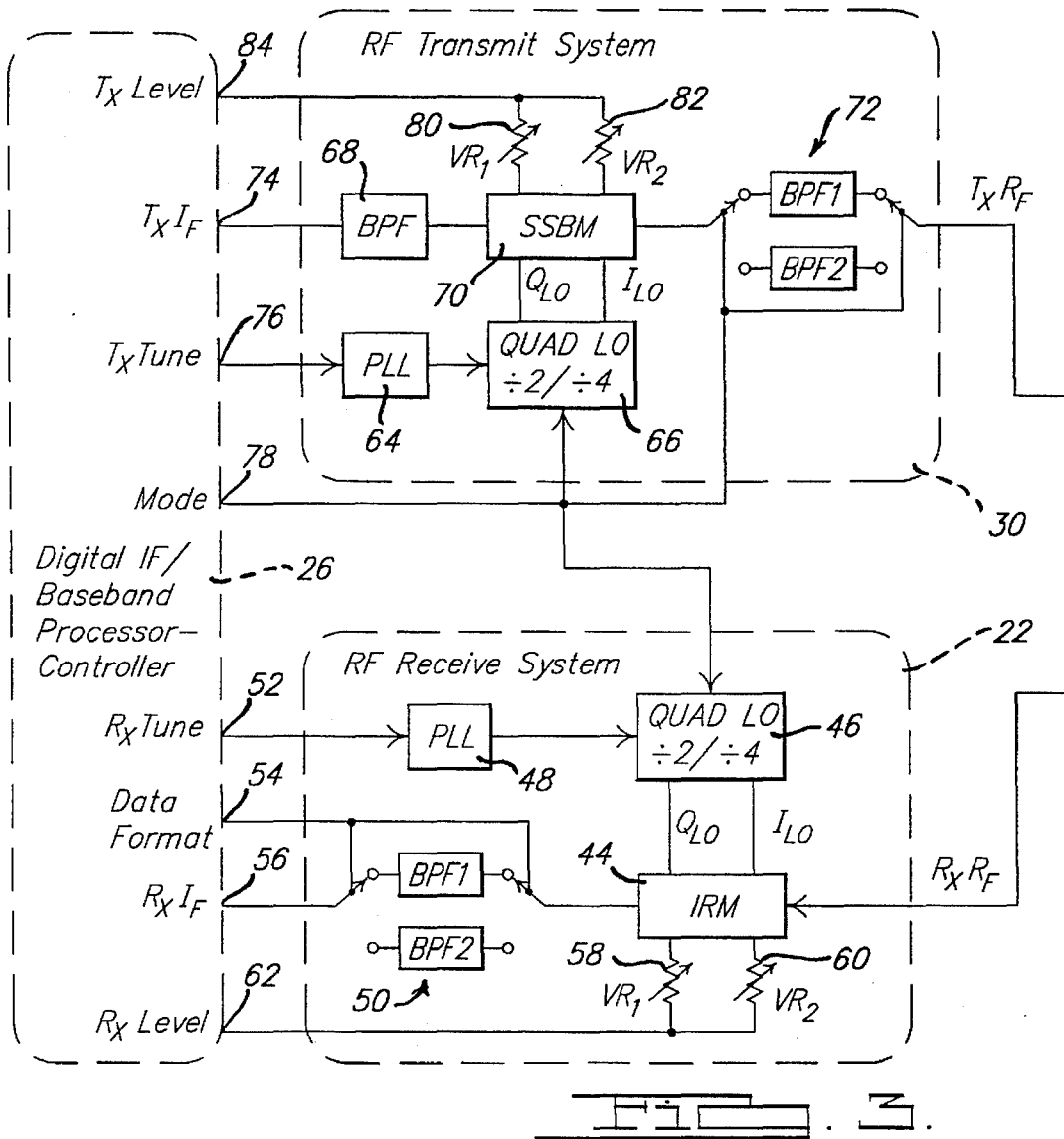
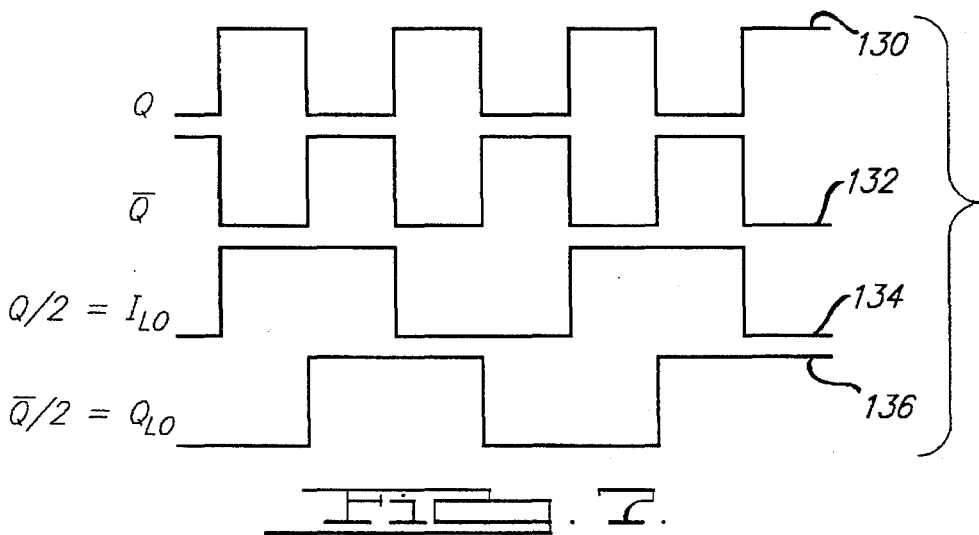
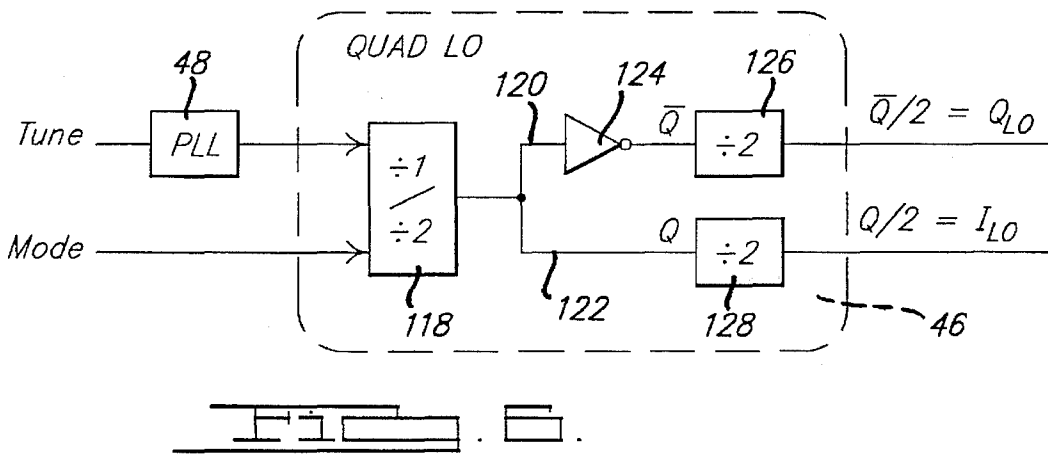
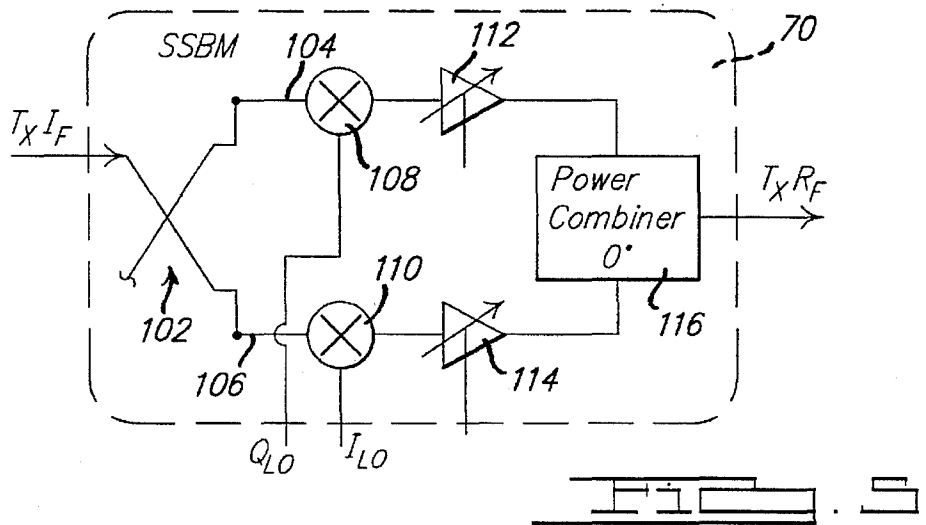


FIG. 1.







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