

#### US005764693A

## United States Patent [19]

#### Taylor et al.

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#### [45] Date of Patent:

Jun. 9, 1998

#### [54] WIRELESS RADIO MODEM WITH MINIMAL INTER-DEVICE RF INTERFERENCE

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[73] Assignee: Research In Motion Limited,

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[21] Appl. No.: 488,695

[22] Filed: Jun. 8, 1995

#### Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 337,841, Nov. 14, 1994, Pat. No. 5,619,531.

[51] Int. Cl.<sup>6</sup> ...... H04L 5/16; H04L 27/10

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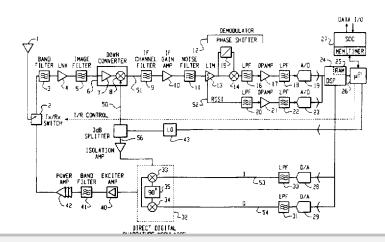
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#### [57] ABSTRACT

A wireless radio modem that may be incorporated into a host system or connected through a PCMCIA or similar port to a host system includes radio frequency modulation/demodulation circuitry employing electronic device elements that operate in a frequency range that minimizes the RF interference between the radio modem and the host system. Radio modem power conservation is maximized by 1) simplifying signal modulation processing by use of a two-point waveform transition table, thereby reducing processing requirements; and 2)incorporating a "sleep mode" feature in which all non-timer circuitry is powered-down when not in use.

#### 12 Claims, 8 Drawing Sheets



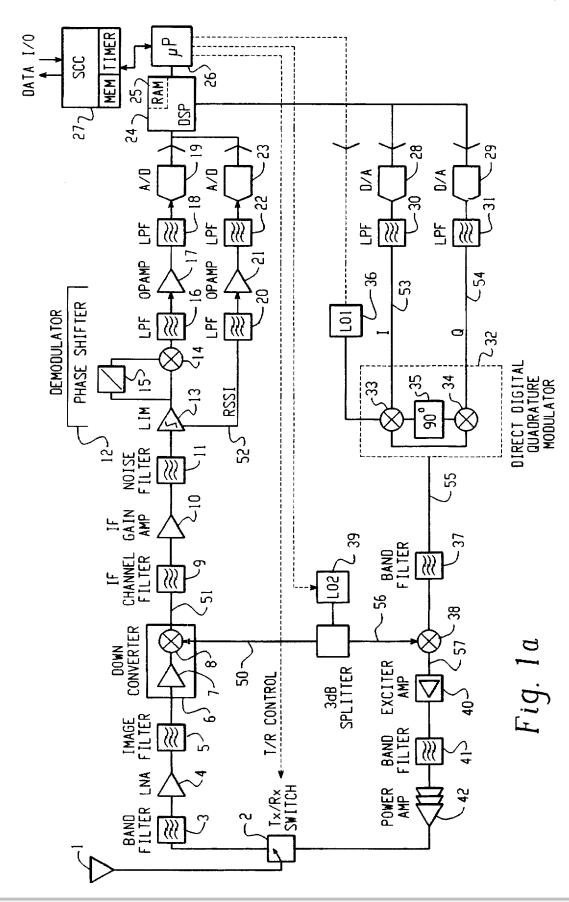


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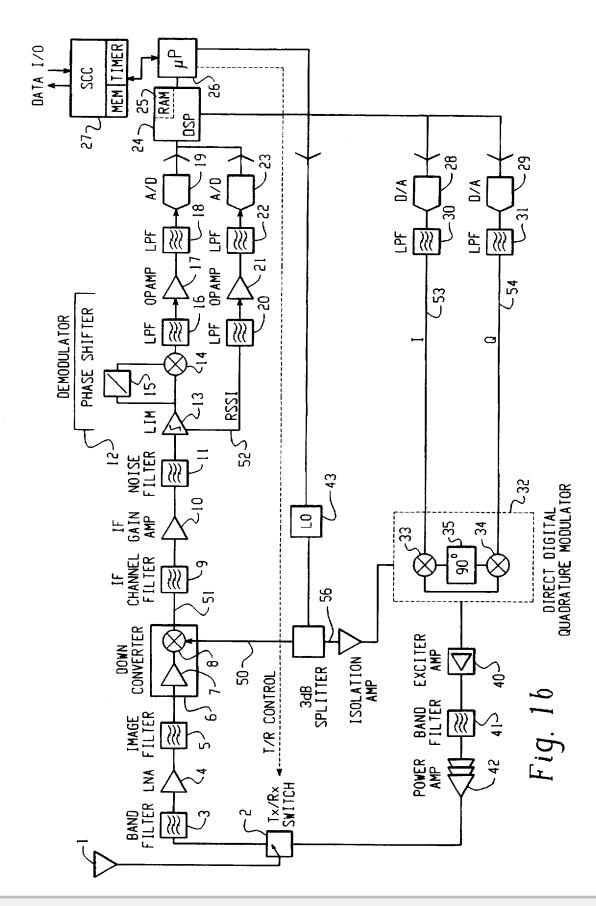
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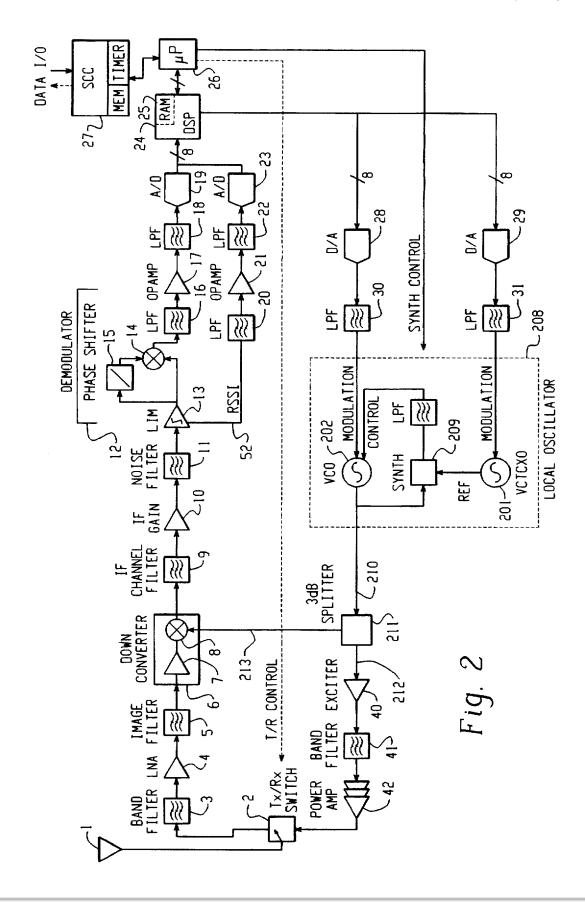


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