



US006225873B1

(12) **United States Patent**  
**Hill**

(10) **Patent No.:** **US 6,225,873 B1**  
(45) **Date of Patent:** **May 1, 2001**

- (54) **FREQUENCY SHIFT KEY MODULATING OSCILLATOR**
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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 0 days.
- (21) Appl. No.: **08/566,270**
- (22) Filed: **Dec. 1, 1995**
- (51) **Int. Cl.<sup>7</sup>** ..... **H03C 3/00**
- (52) **U.S. Cl.** ..... **332/102; 332/100; 332/101; 375/272; 375/303; 375/304; 375/306; 375/307; 331/107 A; 331/179**
- (58) **Field of Search** ..... **332/100, 101, 332/102; 375/272, 303, 304, 306, 307; 331/107 A, 179**

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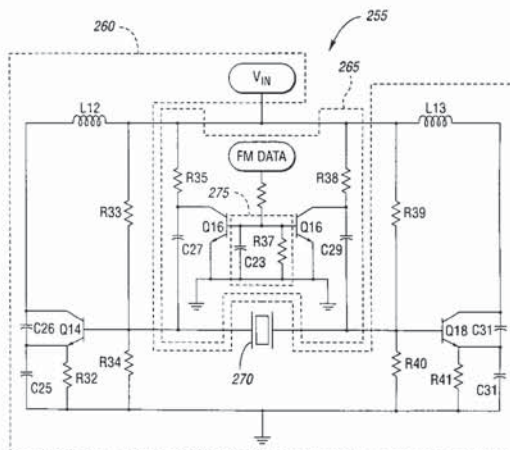
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(57) **ABSTRACT**

The present invention teaches a system for selectably oscillating at a first or a second oscillating frequency. The system comprises an oscillator for providing an oscillating output. Moreover, the system comprises a switching device for selecting a first or a second impedance in response to a select signal having a voltage. Each of the first and second impedances is fixed independently of the select signal voltage such that the oscillating output oscillates at the first oscillating frequency when the first impedance is provided and oscillates at the second oscillating frequency when the second impedance is provided.

**2 Claims, 6 Drawing Sheets**



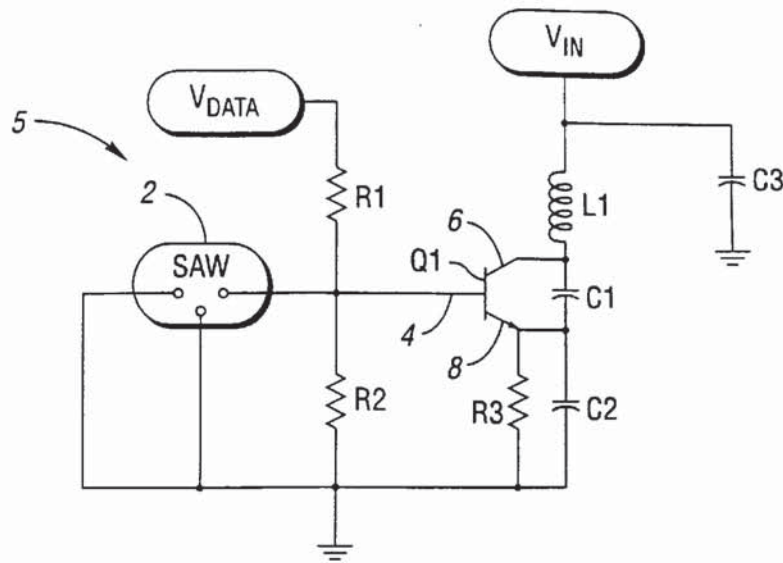
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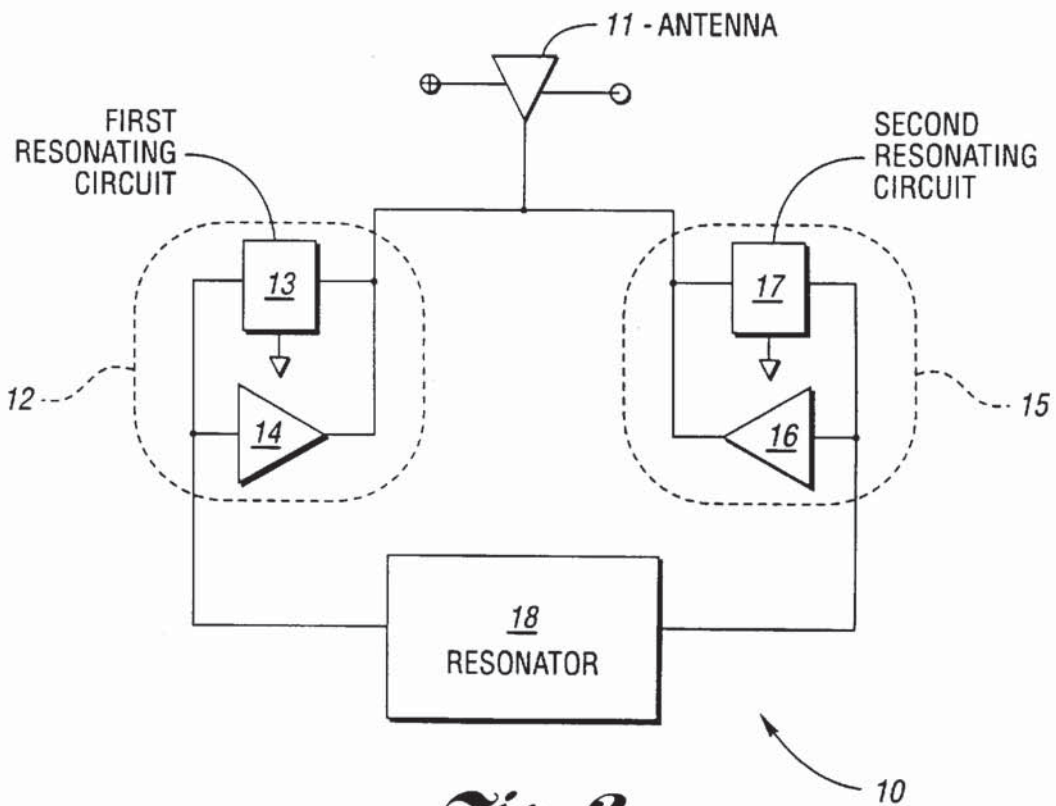
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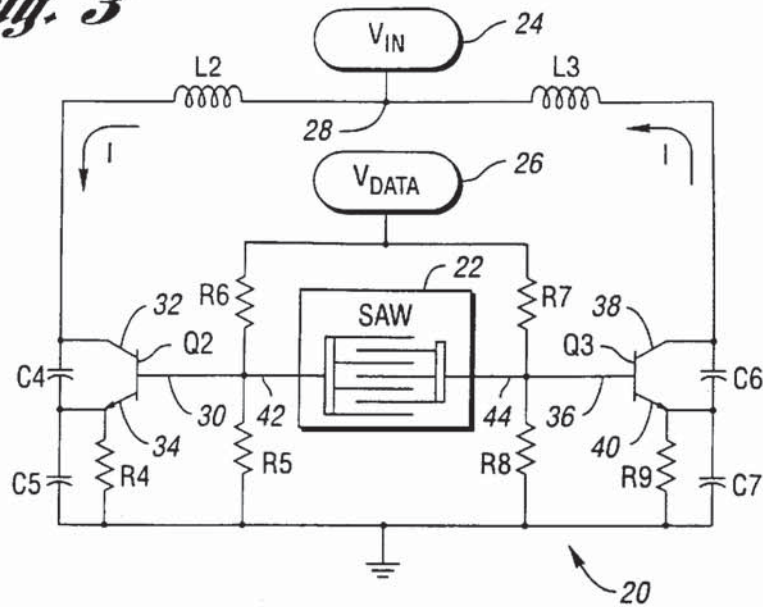


*Fig. 1*  
*(PRIOR ART)*

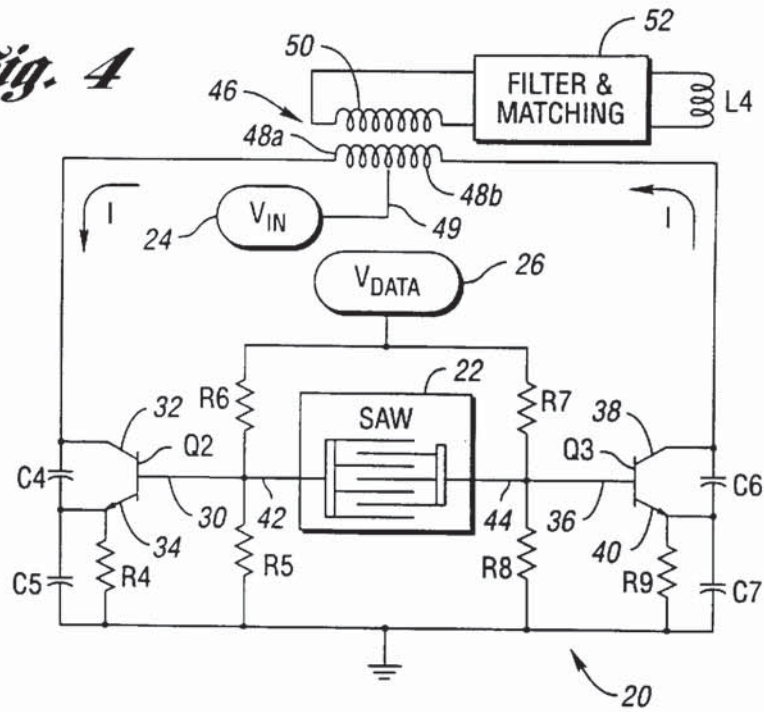


*Fig. 2*

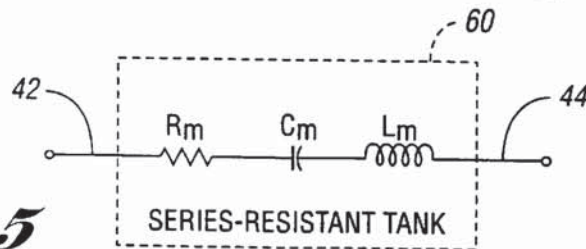
*Fig. 3*



*Fig. 4*



*Fig. 5*



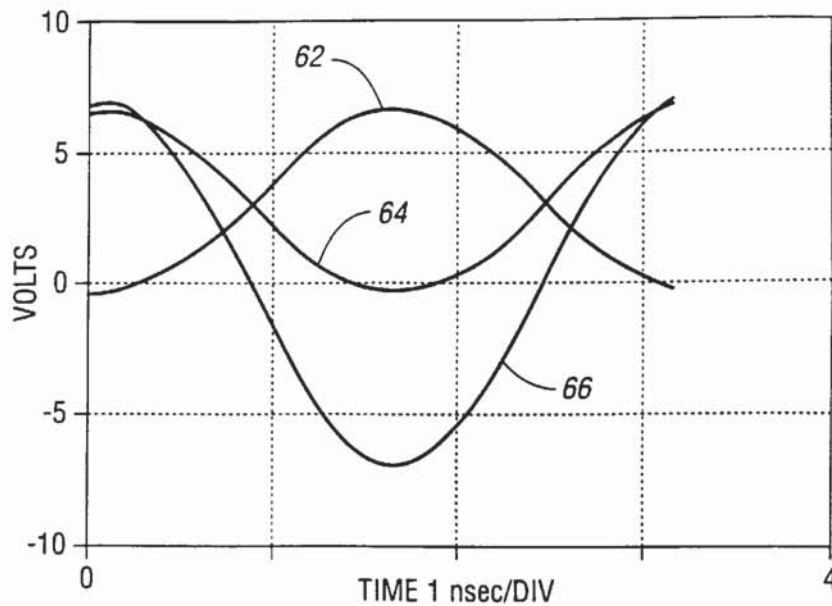


Fig. 6

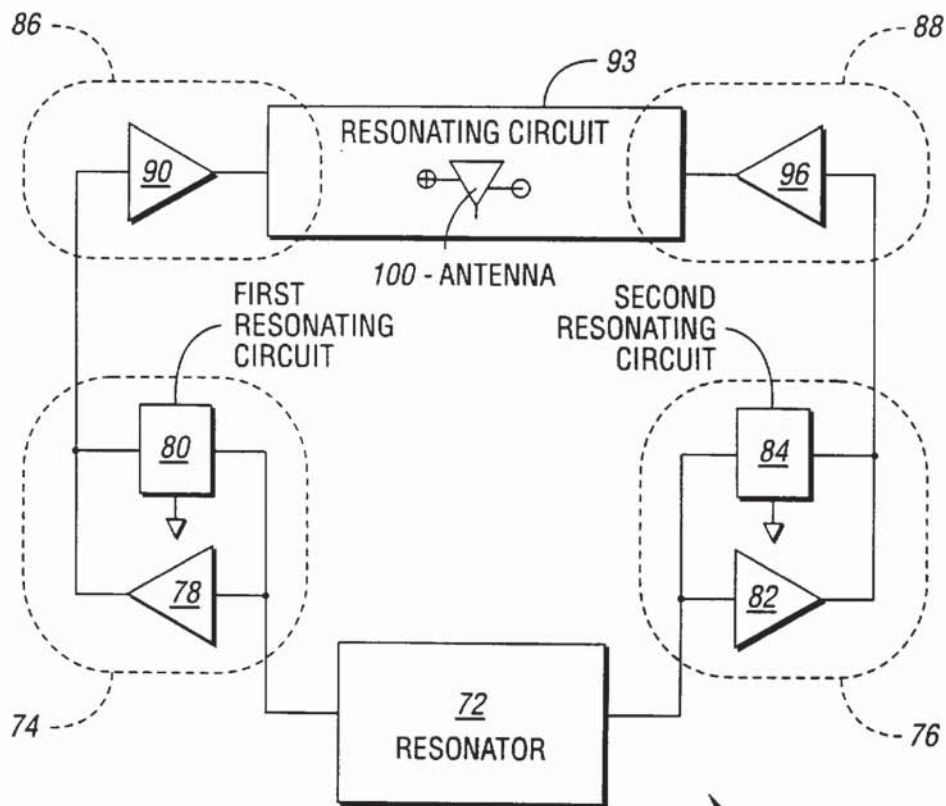


Fig. 7



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