

[54] **MULTICARRIER TECHNIQUES IN BANDLIMITED CHANNELS**

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[73] Assignee: **Mobile Telecommunication Technologies**, Jackson, Miss.

[21] Appl. No.: **480,718**

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[51] Int. Cl.<sup>6</sup> ..... **H04B 1/02**

[52] U.S. Cl. .... **455/103; 455/45; 370/339; 370/343**

[58] **Field of Search** ..... 455/103, 104, 455/17, 46, 59, 60, 61, 62, 49.1, 45; 375/260; 370/69.1, 70, 38, 40, 121; 340/825.44

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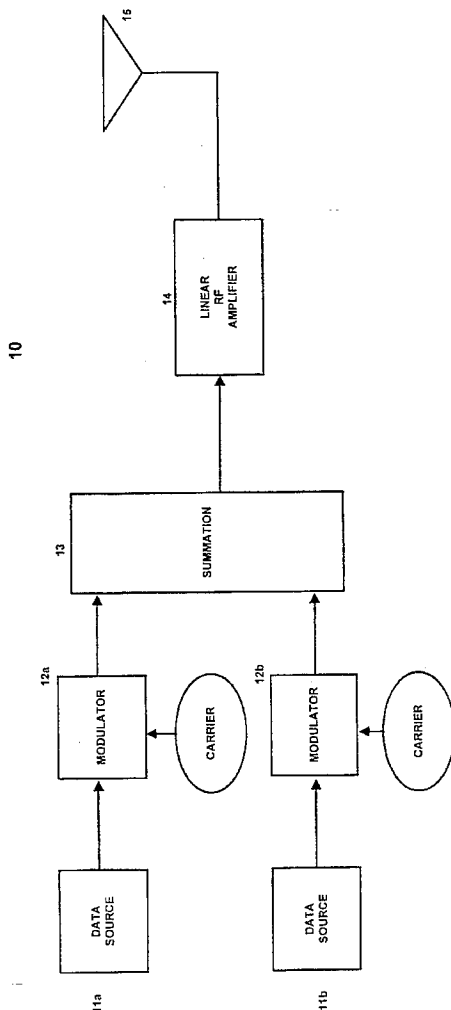
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[57] **ABSTRACT**

A method of multicarrier modulation using co-located transmitters to achieve higher transmission capacity for mobile paging and two-way digital communication in a manner consistent with FCC emission mask limits. Co-location of the transmitters obviates the need for stringent, symmetrical subchannel interference protection and provides for a wider range of operating parameters, including peak frequency deviation, bit rate, and carrier frequencies, to obtain optimal transmission performance.

**5 Claims, 11 Drawing Sheets**



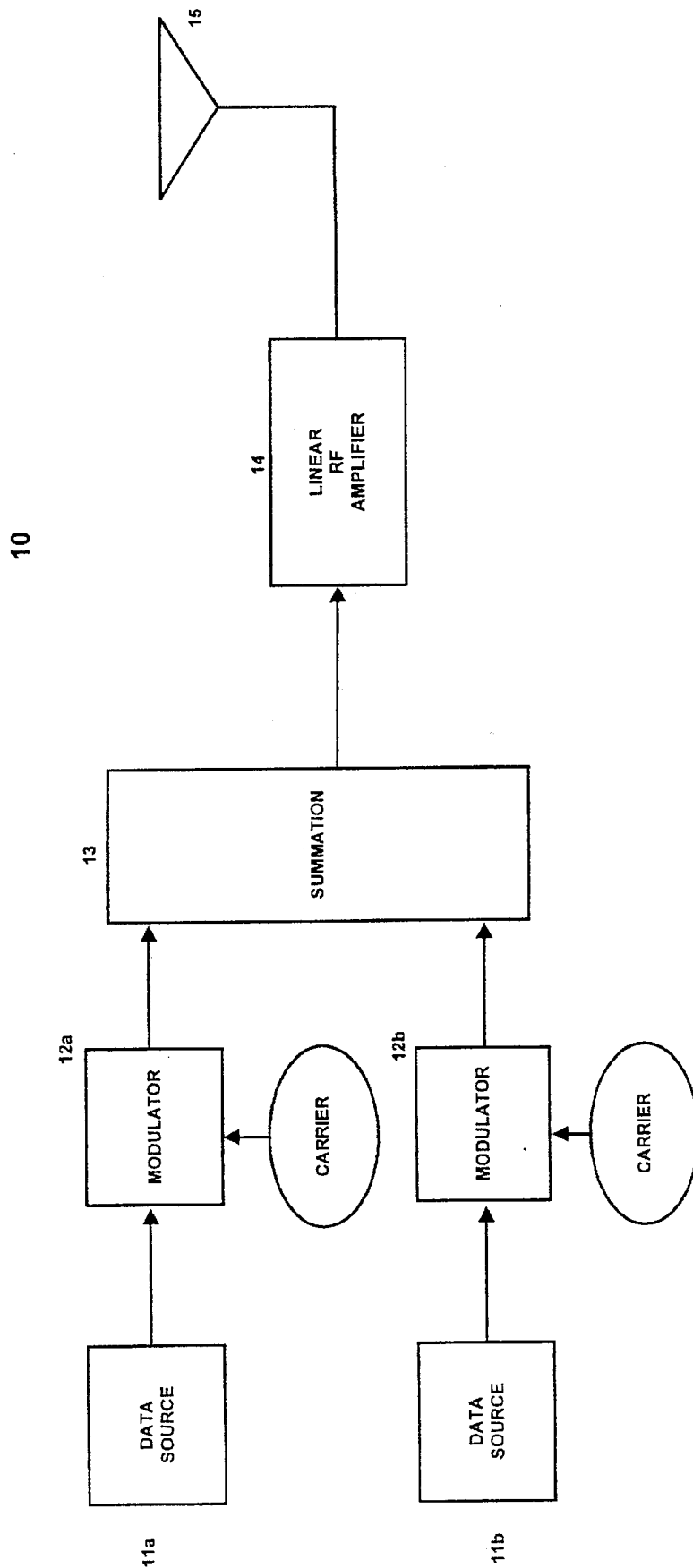


FIGURE 1

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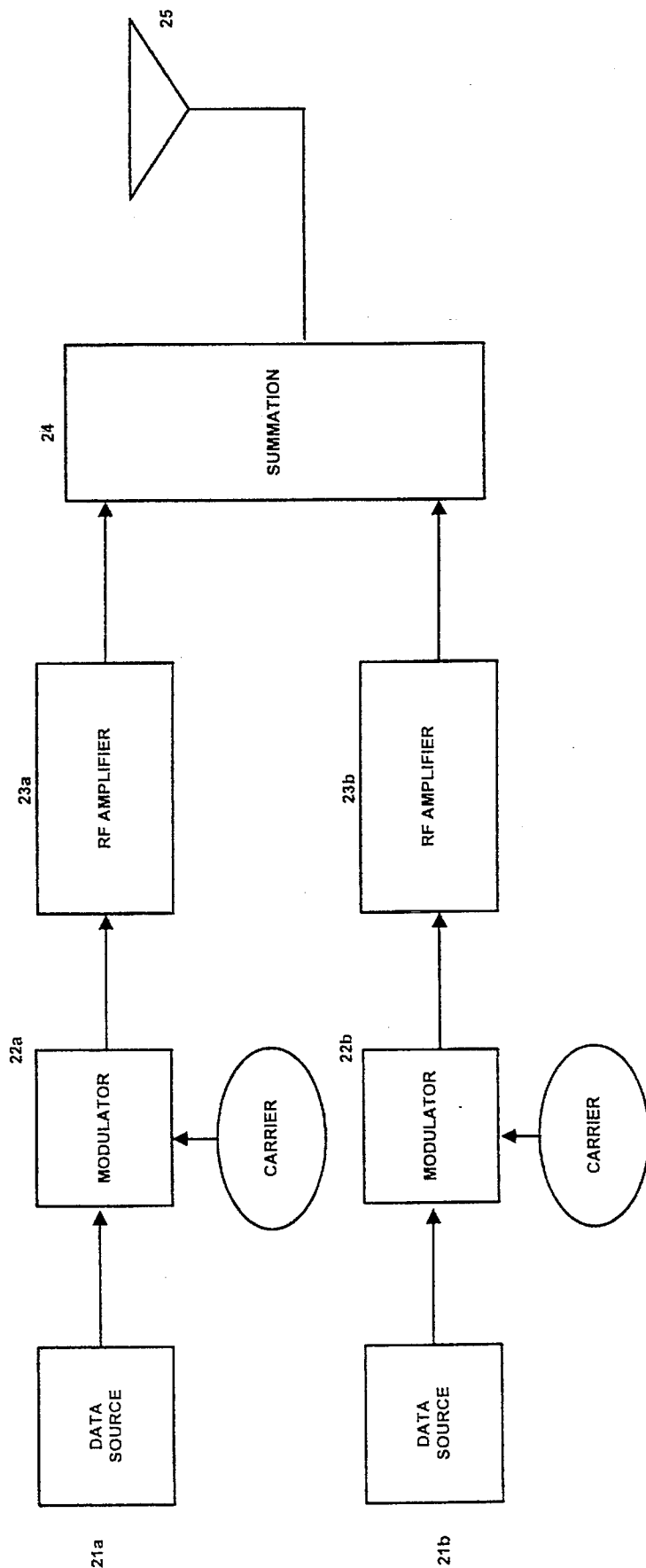


FIGURE 2

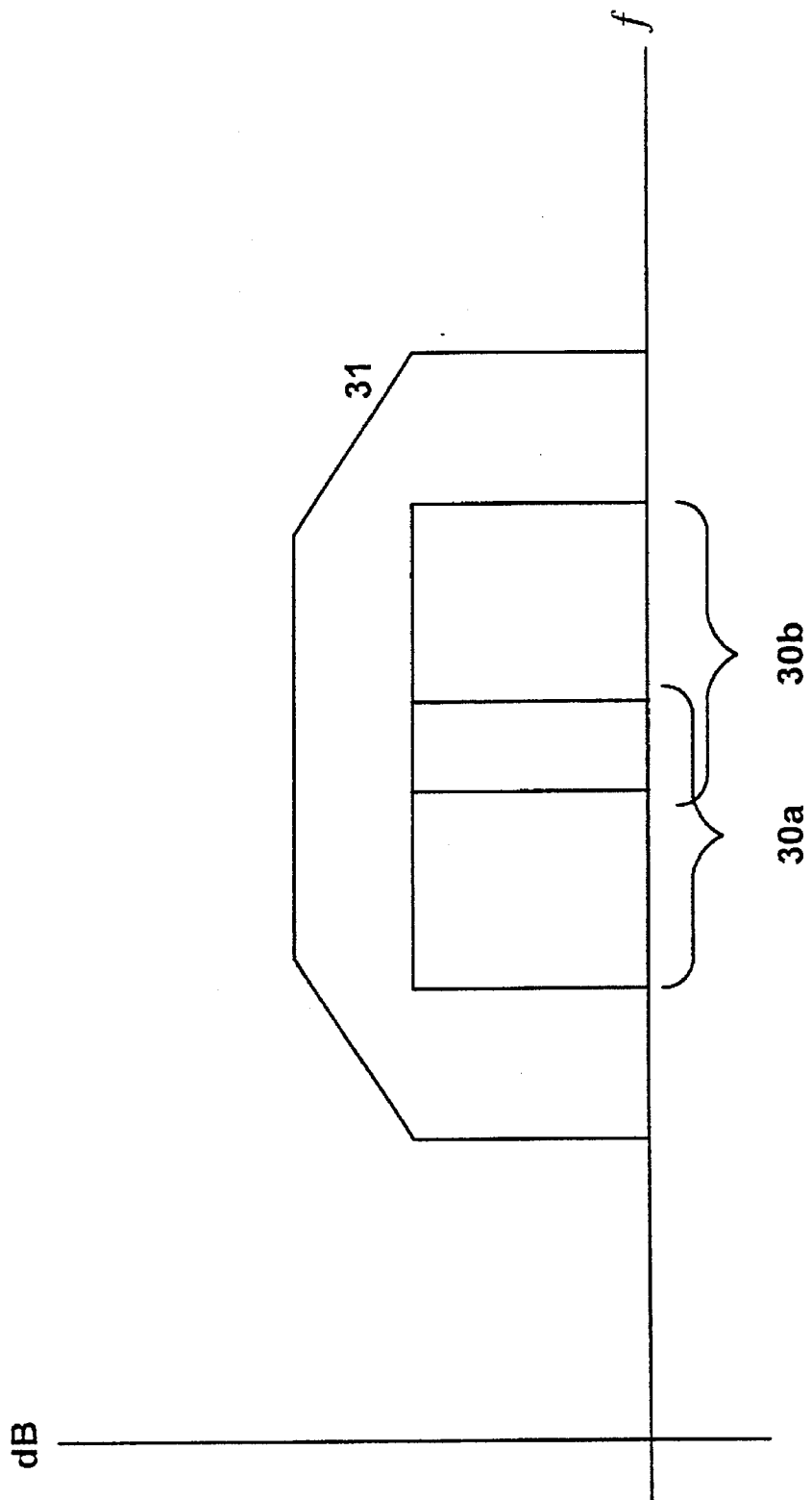


FIGURE 3A

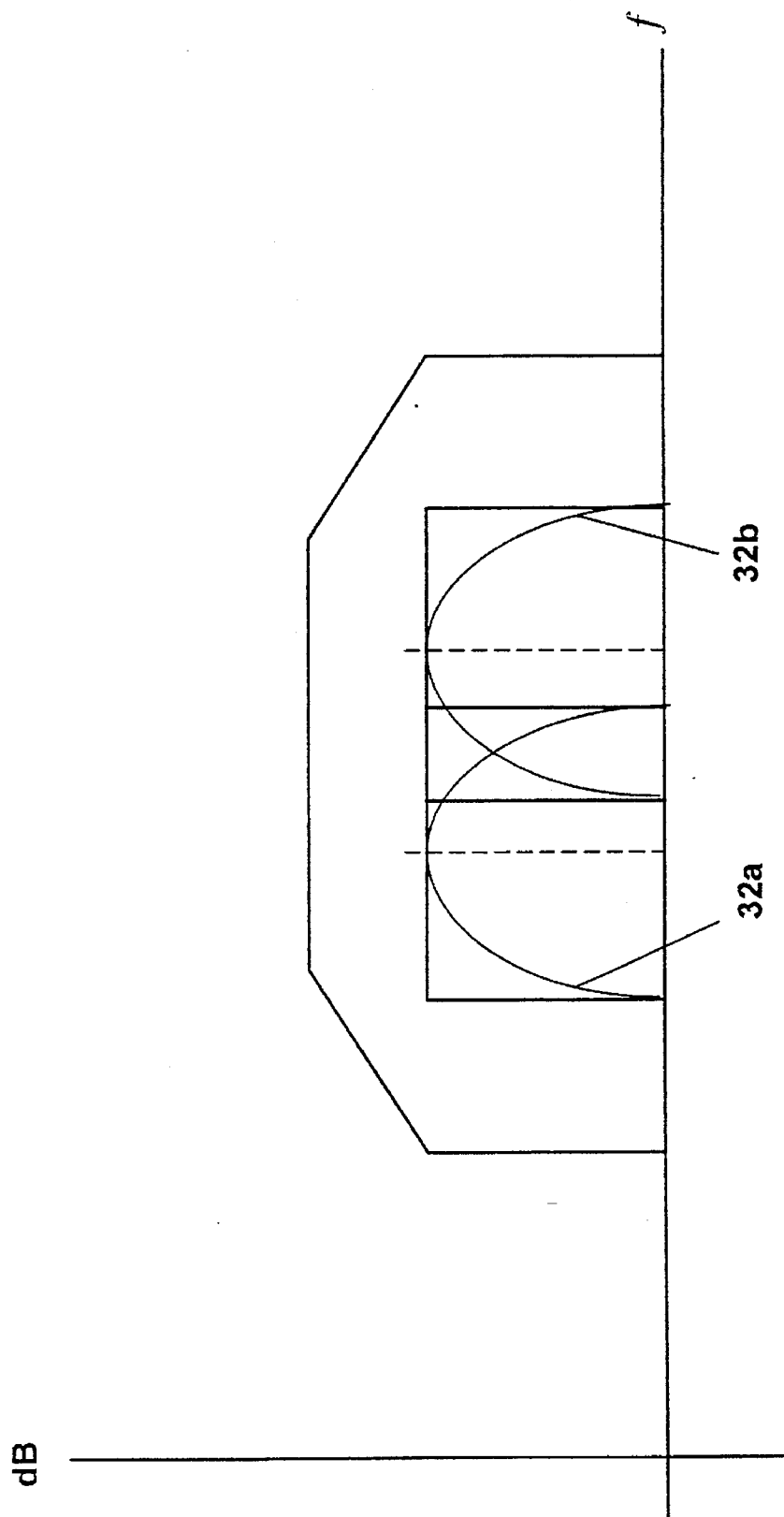


FIGURE 3B

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