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United States Patent [19]

Cameron et al.

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[54] **METHOD AND SYSTEM FOR PROVIDING MULTICARRIER SIMULCAST TRANSMISSION**

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[73] Assignee: **Destineer Corporation**, Jackson, Miss.

[21] Appl. No.: **08/899,476**

[22] Filed: **Jul. 24, 1997**

Related U.S. Application Data

[63] Continuation of application No. 08/760,457, Dec. 6, 1996, abandoned, which is a continuation of application No. 07/973,918, Nov. 12, 1992, Pat. No. 5,590,403.

[51] Int. Cl.⁶ **H04B 1/50**

[52] U.S. Cl. **455/59; 455/102; 455/103**

[58] Field of Search 455/502, 503, 455/507, 509, 515, 516, 517, 524, 59, 60, 62, 63, 67.1, 67.3, 67.6, 101, 102, 103; 375/260, 267, 299; 370/343, 344

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[57] ABSTRACT

A two-way communication system for communication between a system network and a mobile unit. The system network includes a plurality of base transmitters and base receivers include in the network. The base transmitters are divided into zonal assignments and broadcast in simulcast using multi-carrier modulation techniques. The system network controls the base transmitters to broadcast in simulcast during both systemwide and zone boundaries to maximize information throughout. The preferred mobile unit includes a noise detector circuit to prevent unwanted transmissions. The system network further provides an adaptive registration feature for mobile units which controls the registration operation by the mobile units to maximize information throughout.

19 Claims, 30 Drawing Sheets

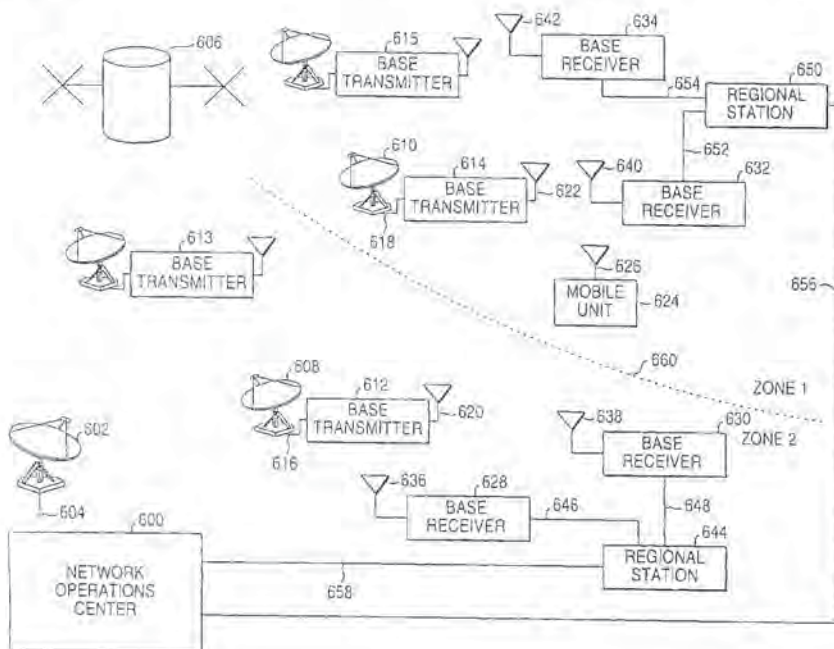
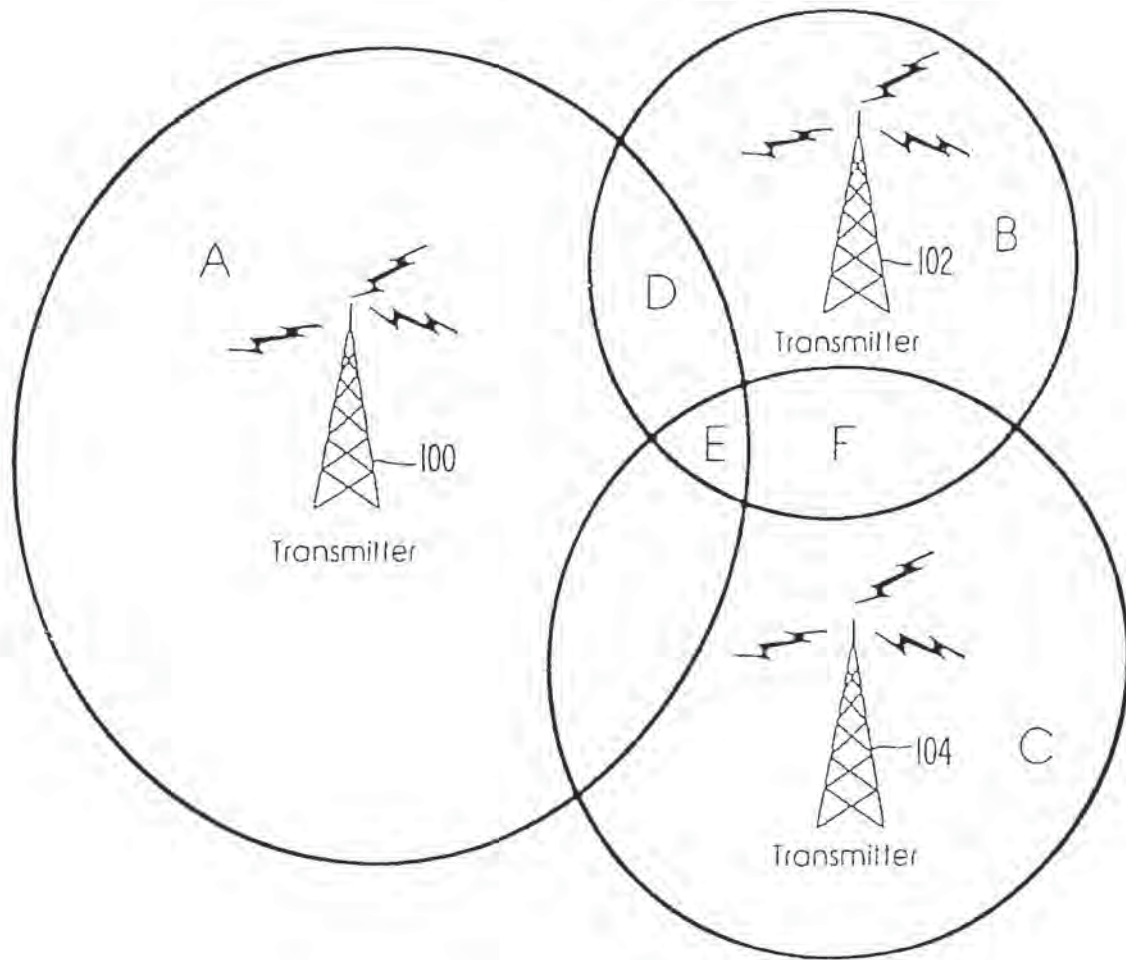


FIG. 1
PRIOR ART



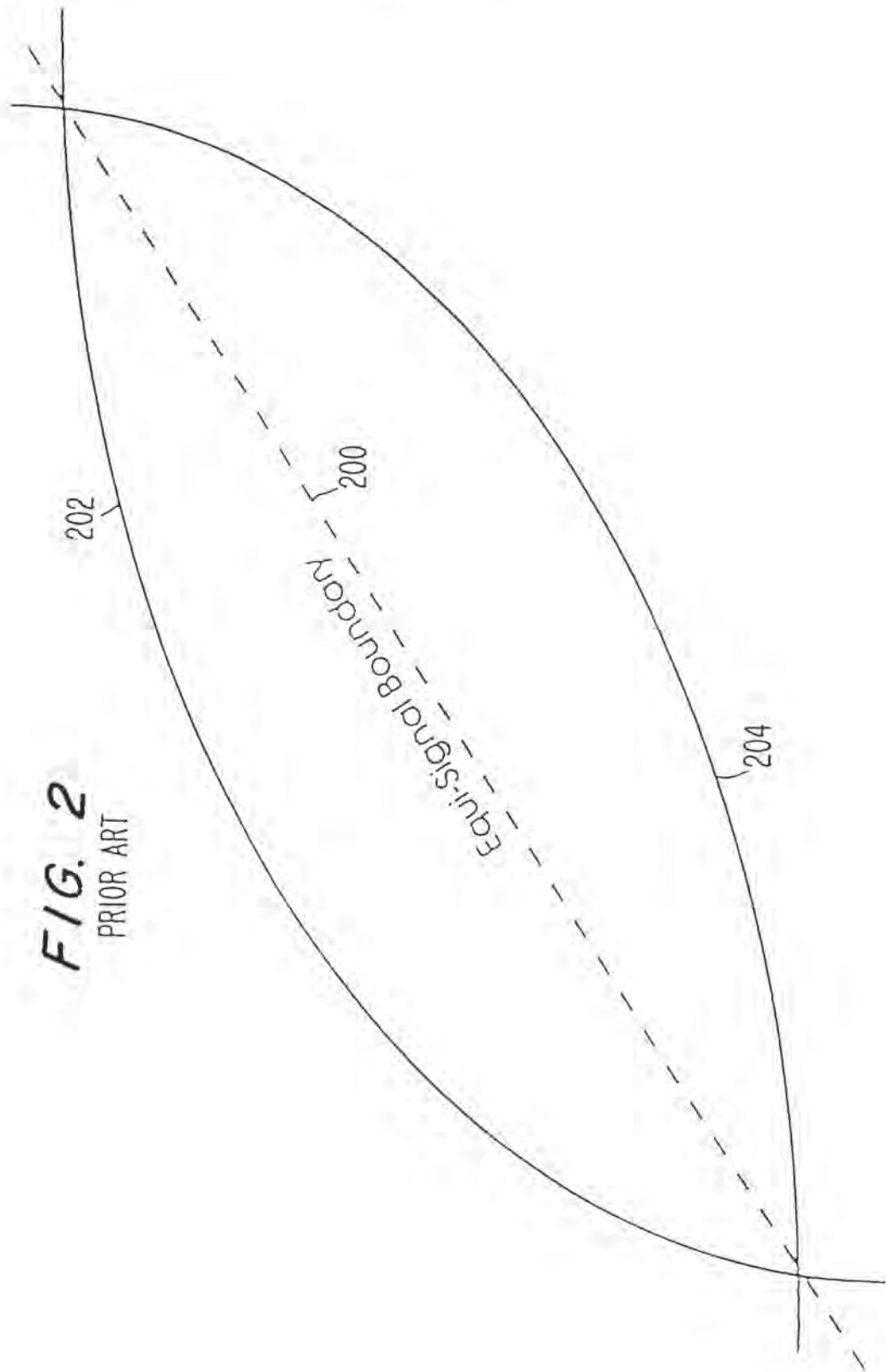


FIG. 2
PRIOR ART

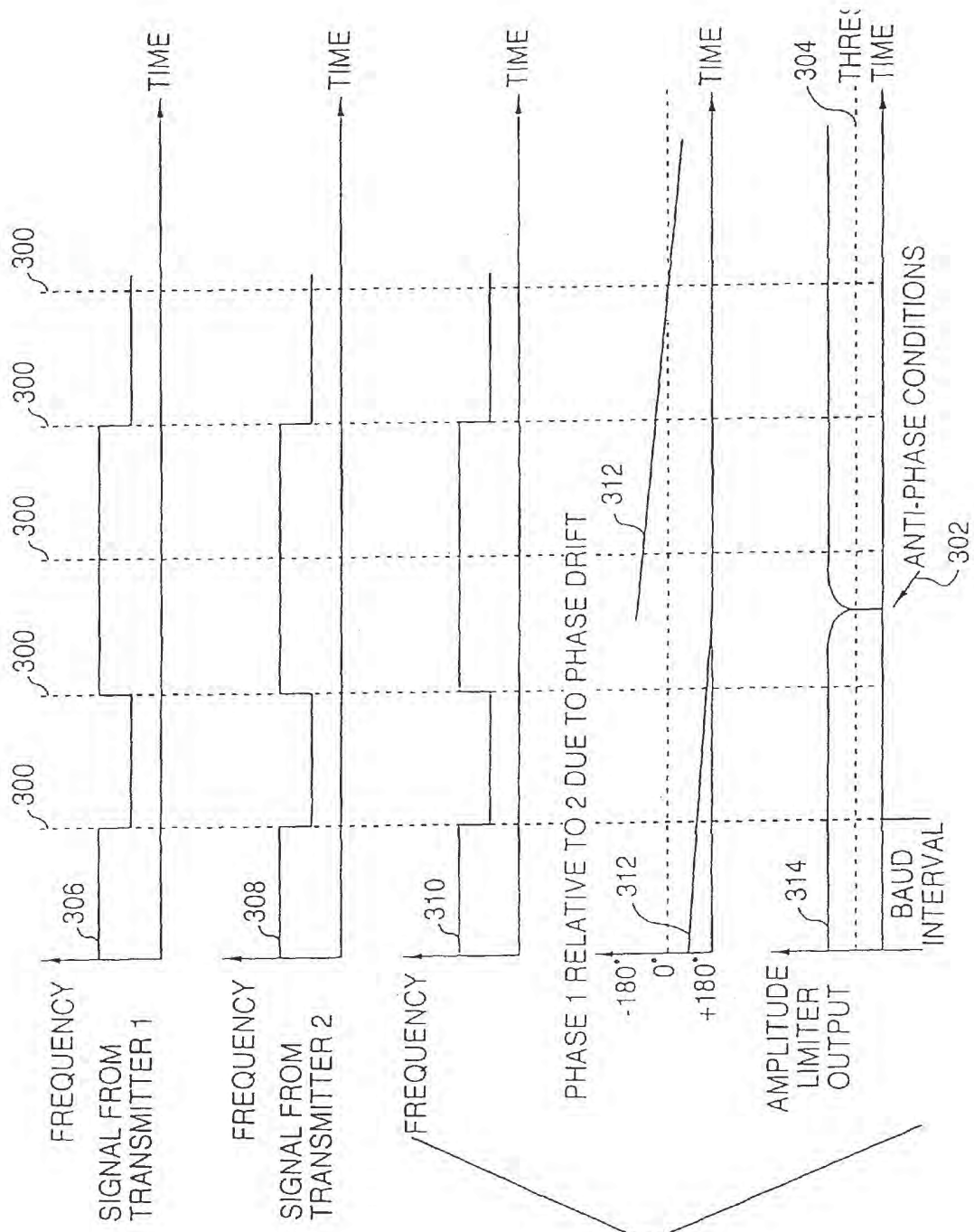


FIG. 3(A)
PRIOR ART

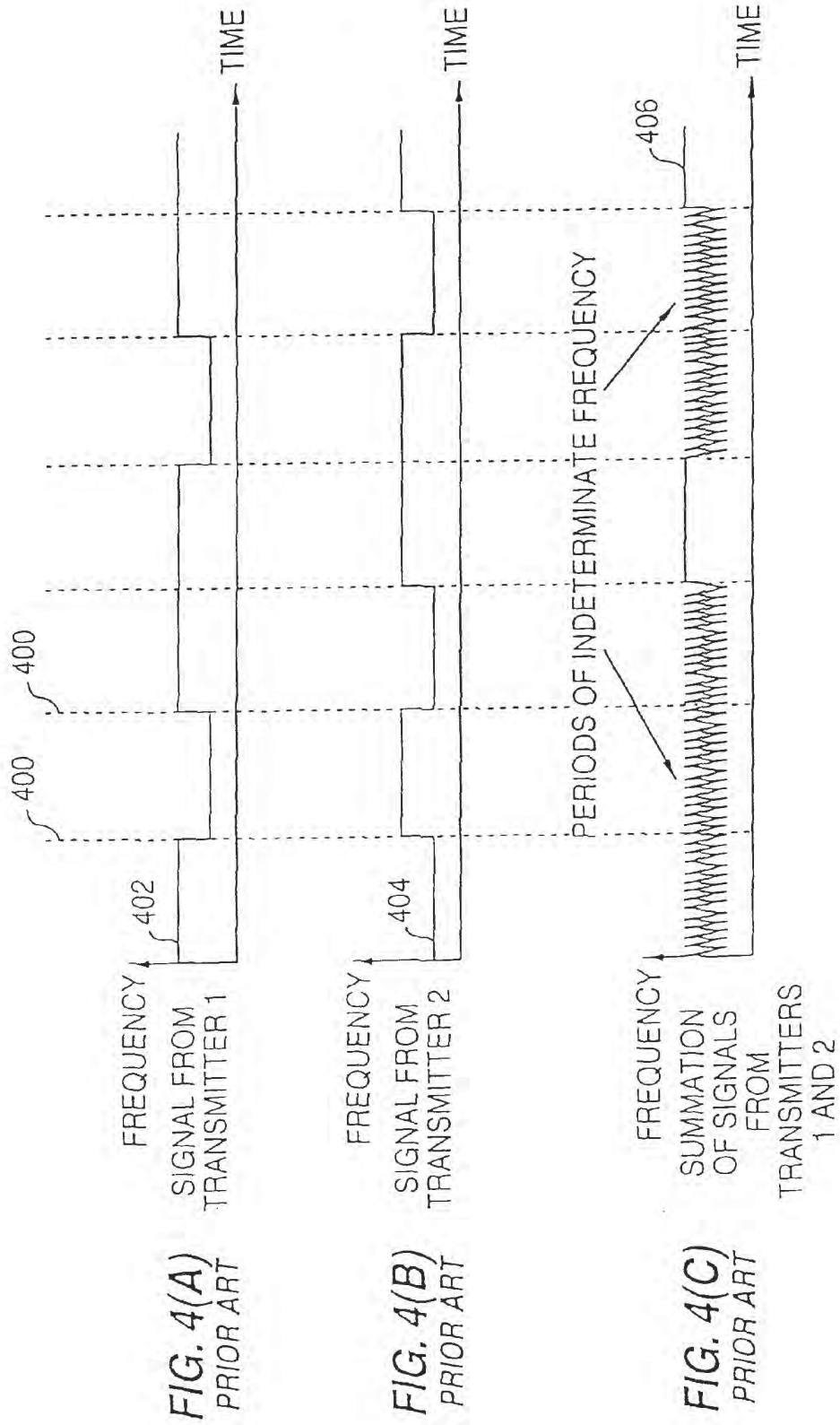
FIG. 3(B)
PRIOR ART

FIG. 3(C)
PRIOR ART

FIG. 3(D)
PRIOR ART

SUMMATION
OF SIGNALS
FROM
TRANSMITTERS
1 AND 2

FIG. 3(E)
PRIOR ART



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