

(12) **United States Patent**  
**Bremer**

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(54) **SYSTEM AND METHOD OF COMMUNICATION VIA EMBEDDED MODULATION**

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(57) **ABSTRACT**

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A communication system includes a master transceiver in communication with one or more transceivers, for example, a first tributary transceiver and a second tributary transceiver over a communication medium. The first tributary transceiver uses a primary modulation method for communication while the second tributary transceiver uses a secondary or embedded modulation method for communication. The master transceiver and tributary transceivers each include a processor, memory, and control logic for controlling their operation. While the primary modulation method is normally used for transmissions on the communication medium, the master transceiver can communicate with the second tributary transceiver by notifying the first tributary transceiver that the primary modulation method is being temporarily replaced by the secondary or embedded modulation method. The master transceiver can then exchange information with the second tributary transceiver while the first tributary transceiver ignores any secondary modulation transmissions. In the meantime, the first tributary transceiver conditions itself to look for a trailing sequence from the master transceiver indicating that communication with the second tributary transceiver is complete. When the master transceiver transmits the trailing sequence using the primary modulation method, the first tributary transceiver conditions itself to look for primary modulation transmissions while the second tributary transceiver conditions itself to ignore primary modulation transmissions.

(\* ) 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.: **09/205,205**

(22) Filed: **Dec. 4, 1998**

**Related U.S. Application Data**

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(51) **Int. Cl.**<sup>7</sup> ..... **H04B 1/38; H04L 5/16**

(52) **U.S. Cl.** ..... **375/220; 375/222; 375/219; 370/453**

(58) **Field of Search** ..... **375/261, 222, 375/219, 220; 370/328, 338, 389, 449, 452, 453, 457**

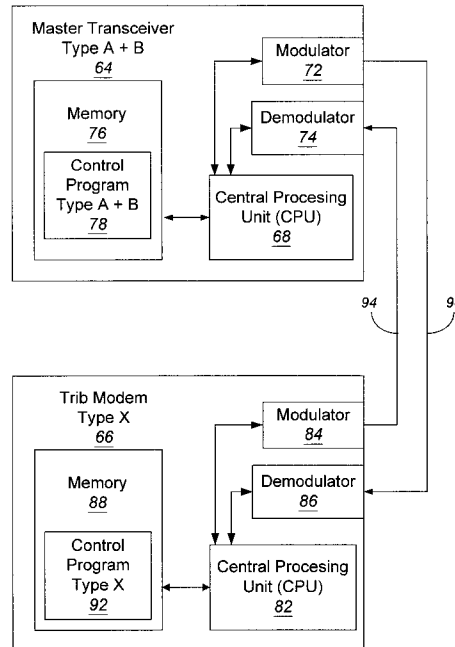
(56) **References Cited**

**U.S. PATENT DOCUMENTS**

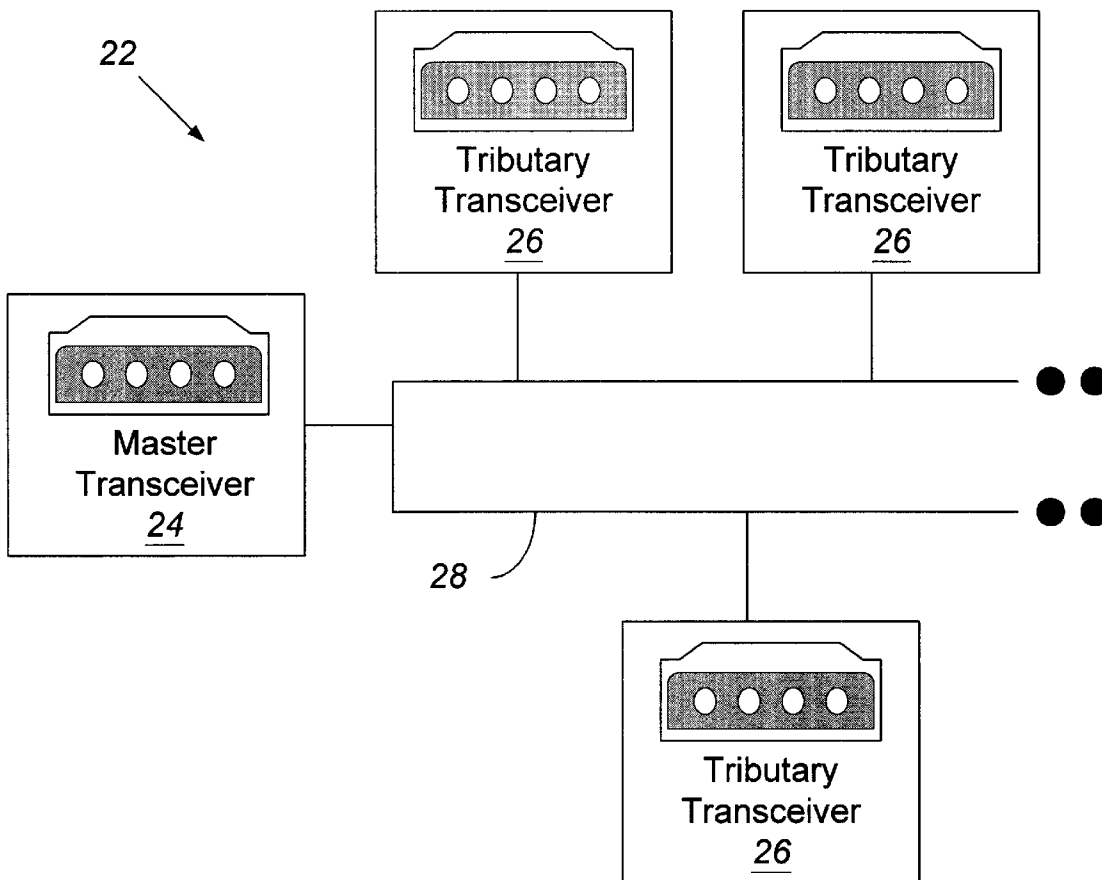
- 5,563,883 A \* 10/1996 Cheng
- 5,936,949 A \* 8/1999 Pasternak et al.
- 5,999,563 A \* 12/1999 Polley et al.
- 6,021,158 A \* 2/2000 Schurr et al. .... 375/211
- 6,067,297 A \* 5/2000 Beach

\* cited by examiner

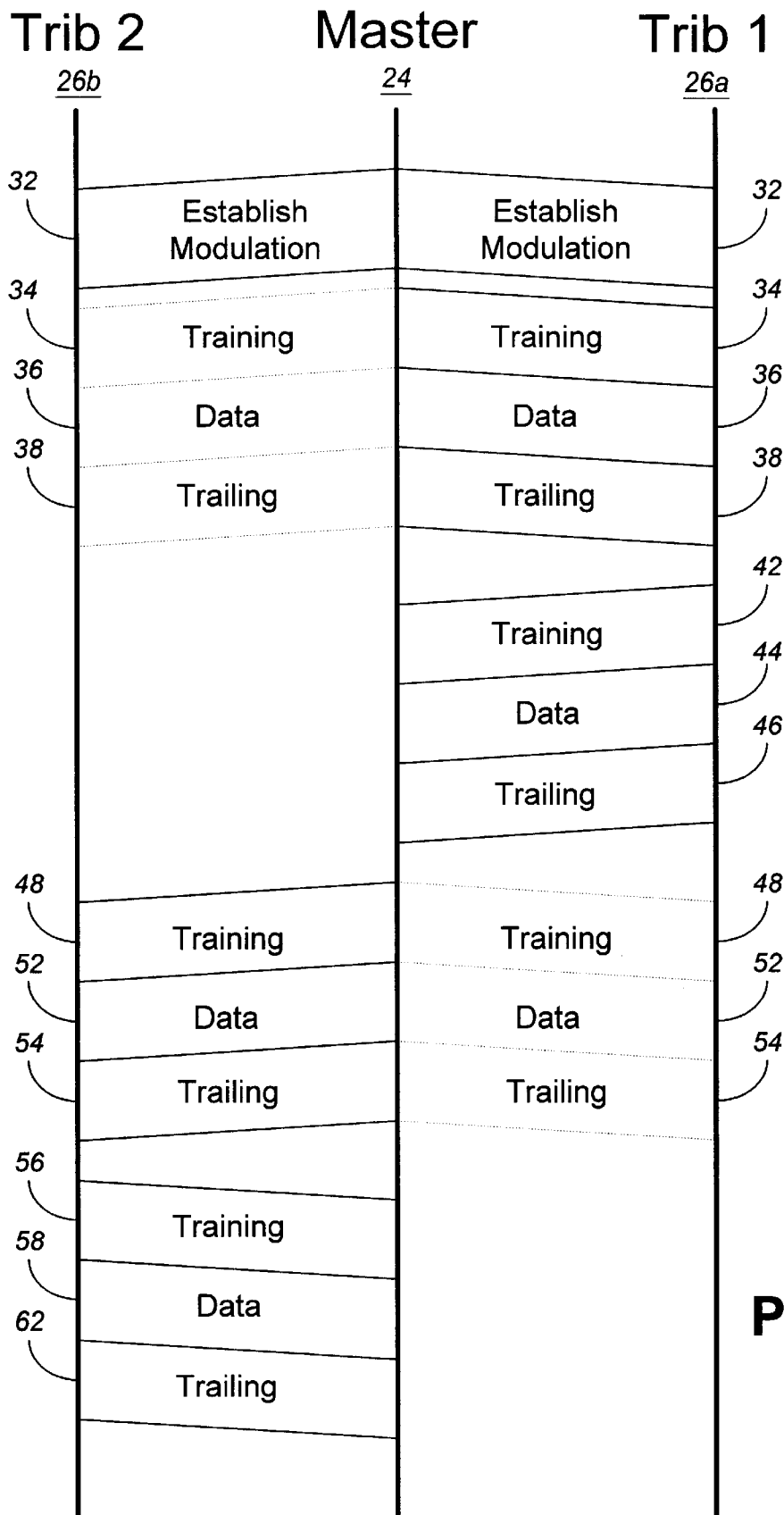
**18 Claims, 7 Drawing Sheets**



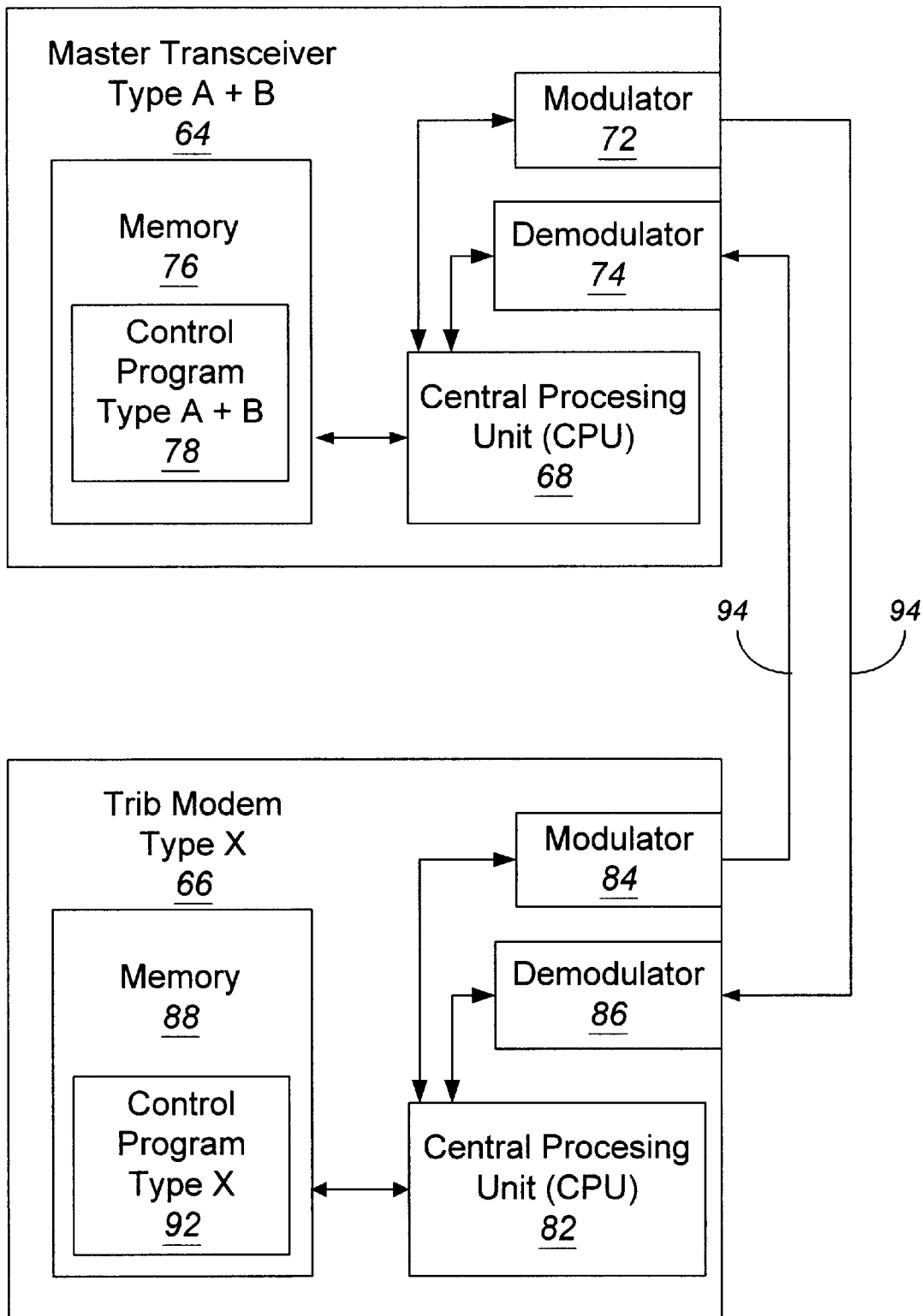
**Samsung Ex. 1314**  
**(Samsung v. Rembrandt)**



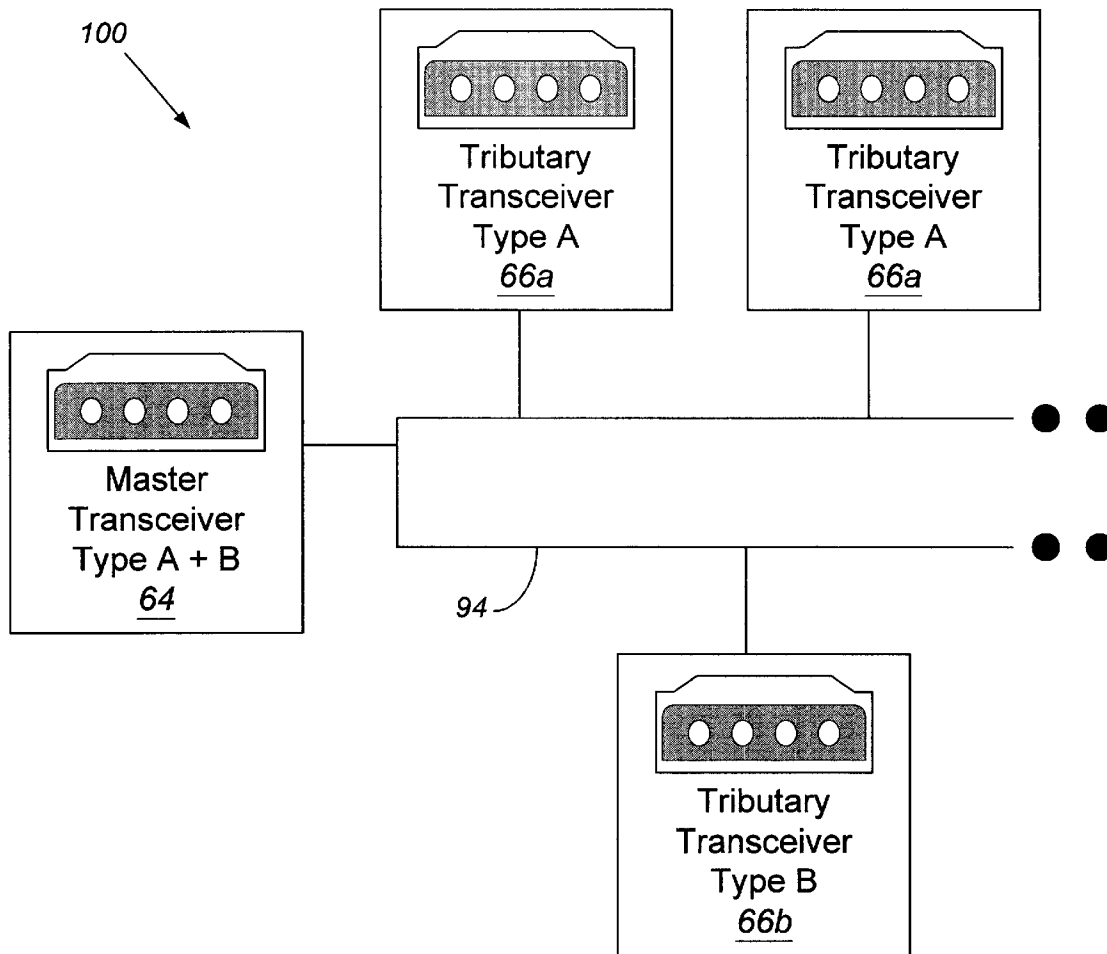
**FIG. 1**  
**Prior Art**



**FIG. 2**  
**Prior Art**



**FIG. 3**



**FIG. 4**

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