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United States Patent [19]

Brand et al.

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[54] **NETWORK HUB FOR MAINTAINING NODE BANDWIDTH IN A SINGLE-NODE NETWORK**

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[21] Appl. No.: **331,217**

[22] Filed: **Mar. 30, 1989**

[51] **Int. Cl.**[5] **H04L 12/44**

[52] **U.S. Cl.** **370/61**; 370/94.3

[58] **Field of Search** 370/85.1, 94.3, 61, 370/67, 85.13, 85.14, 91, 92, 85.4, 60.1, 85.3, 66, 68, 60; 379/88; 340/825.03, 825.52

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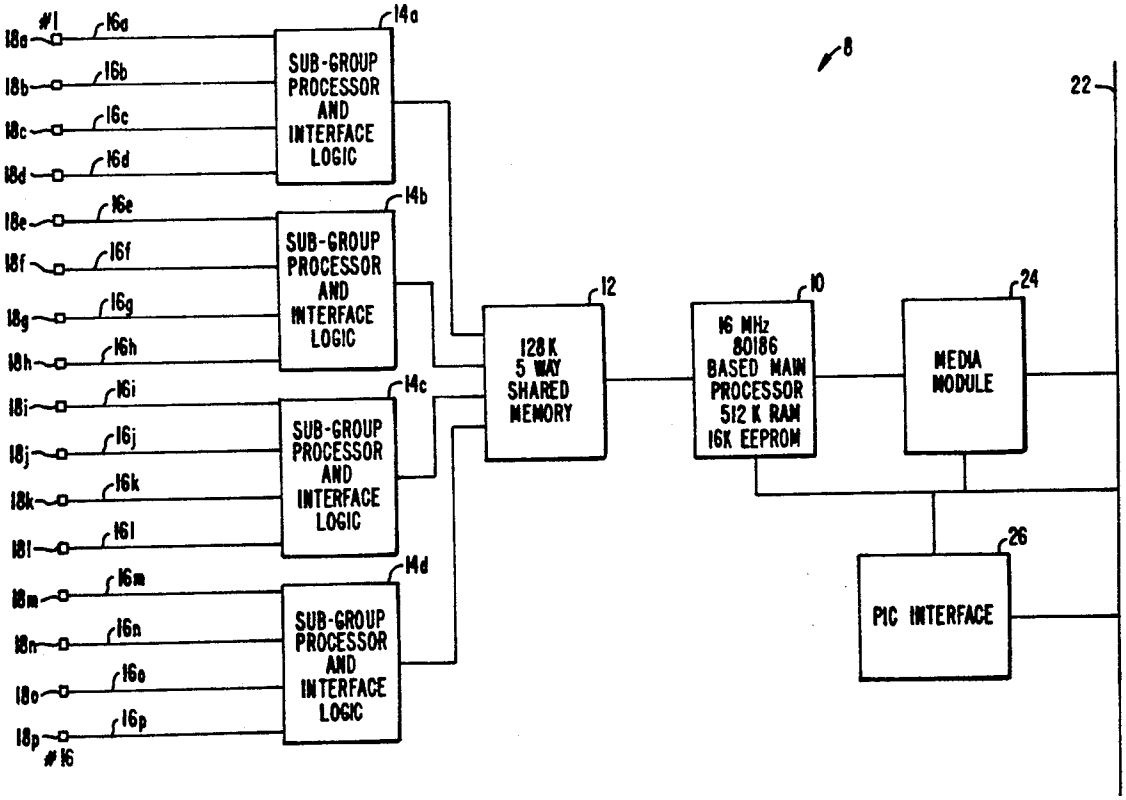
[57] **ABSTRACT**

A hub network system is provided for communication between nodes. The system can be used, e.g., when one node can be configured for baseband bus topology communication, such as LocalTalk TM communication. The node can communicate using the entire bandwidth of the medium, such as 230 Kbps bandwidth, even though other nodes are connected to the network using the hub card. Preferably, the hub card includes a multiprocessor system with a shared memory for providing high internal effective bandwidth communication, such as 15 Mbps communication. A proxy scheme is provided so that the hub topology is transparent to any node which can operate as though it were configured in a bus topology.

15 Claims, 6 Drawing Sheets



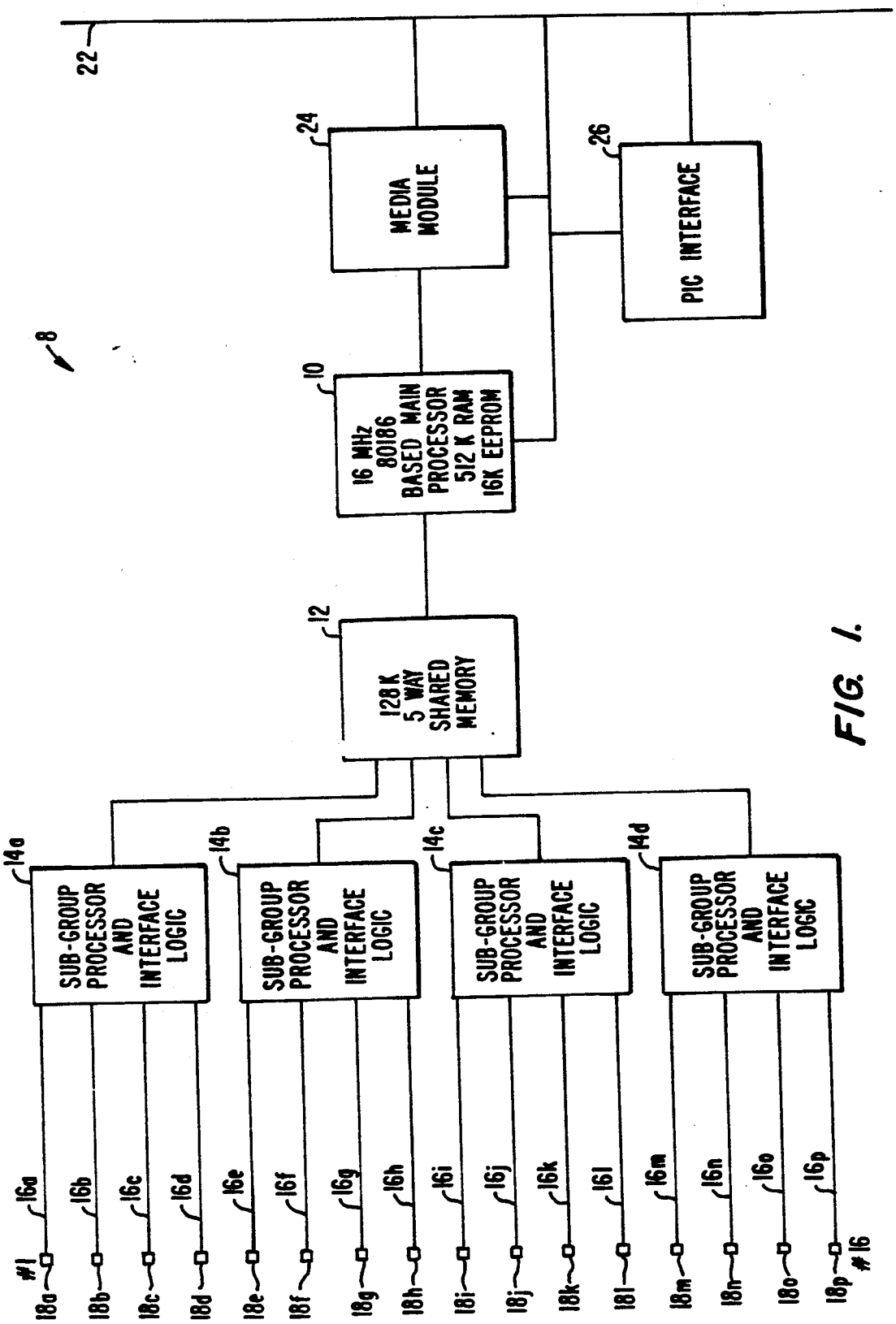


FIG. 1.

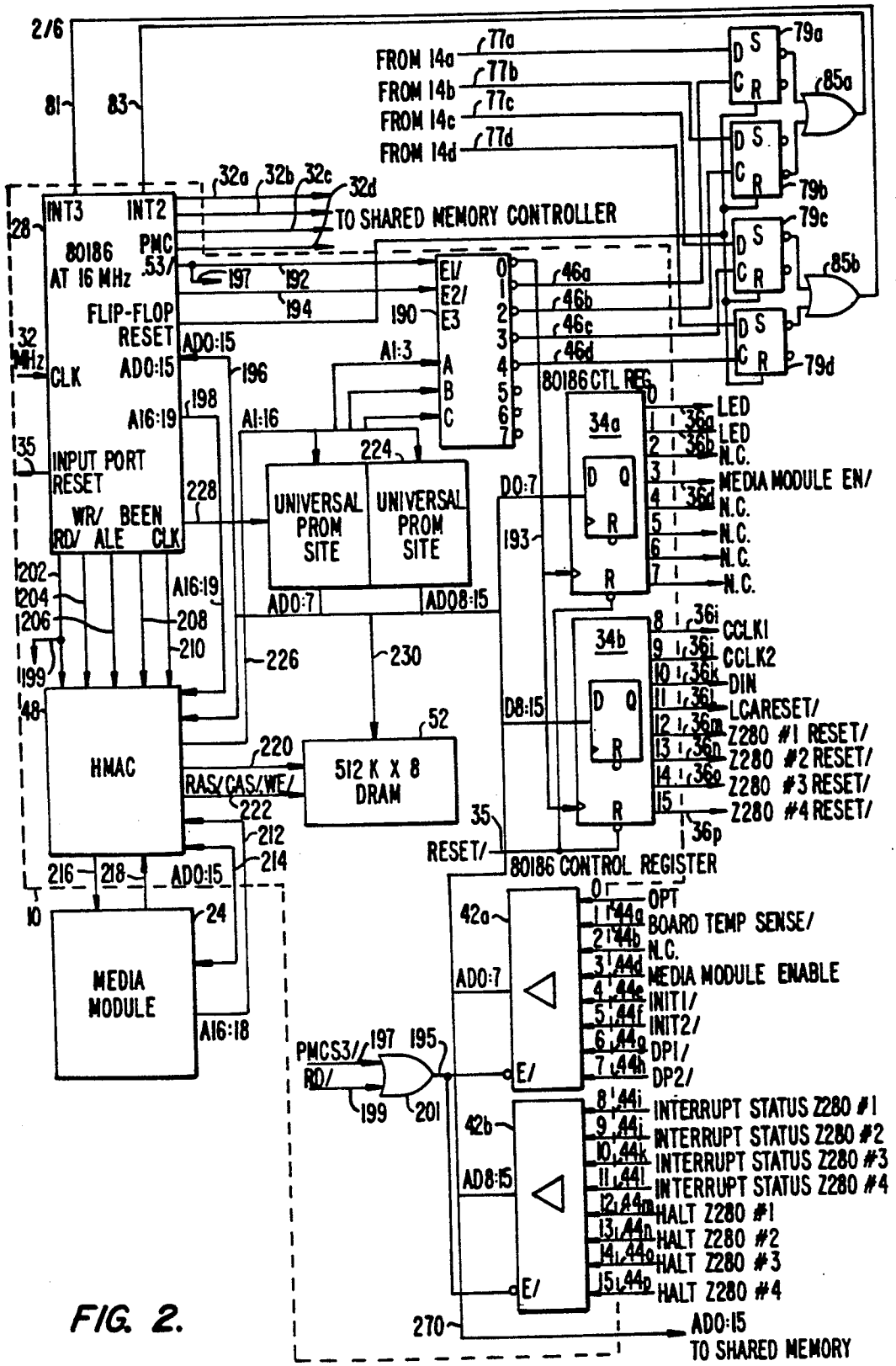


FIG. 2.

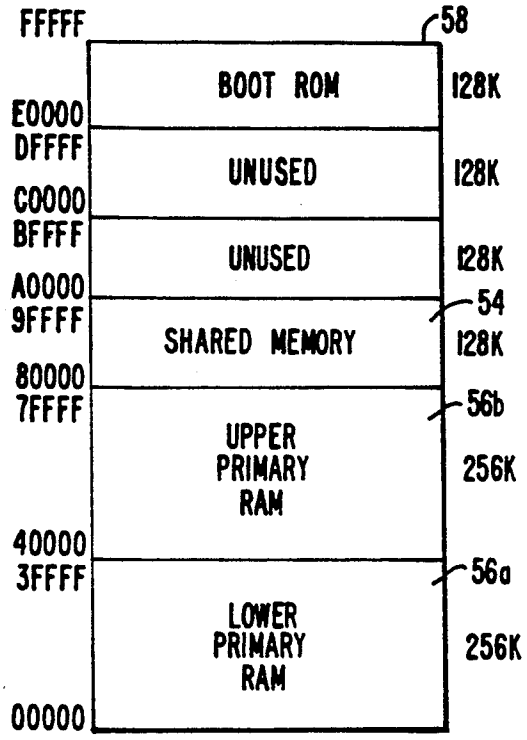


FIG. 3.

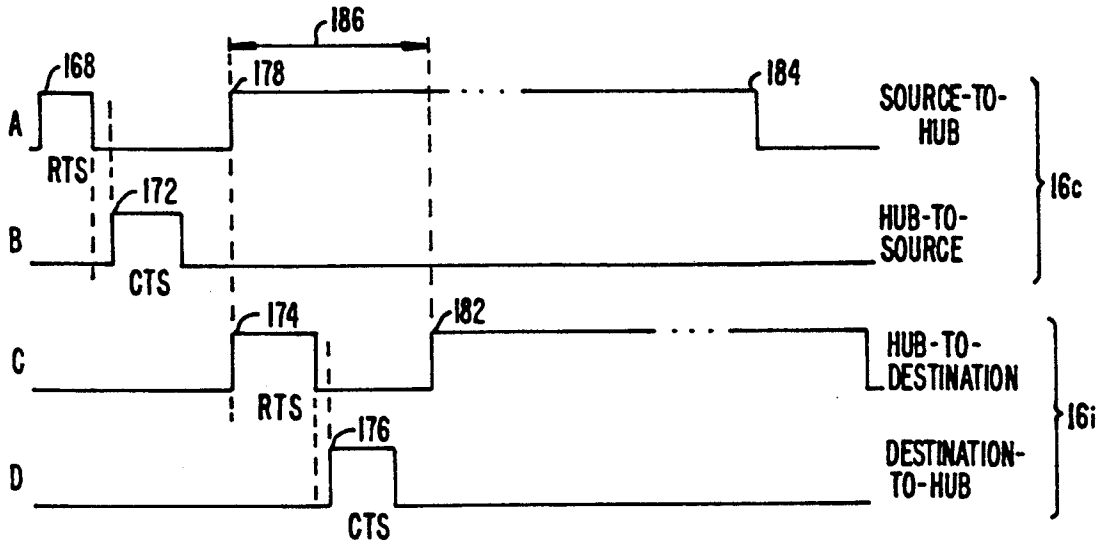


FIG. 9.

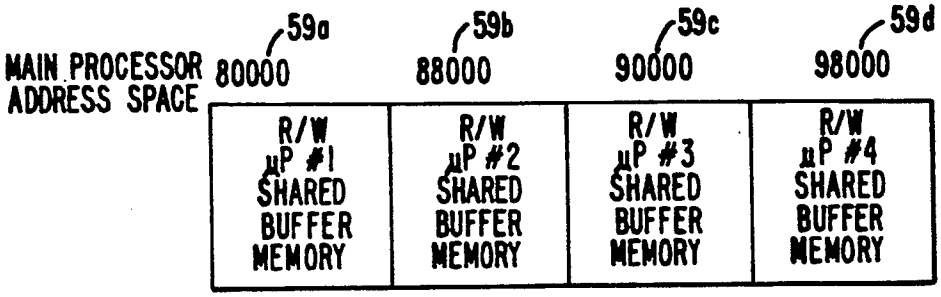


FIG. 4A.

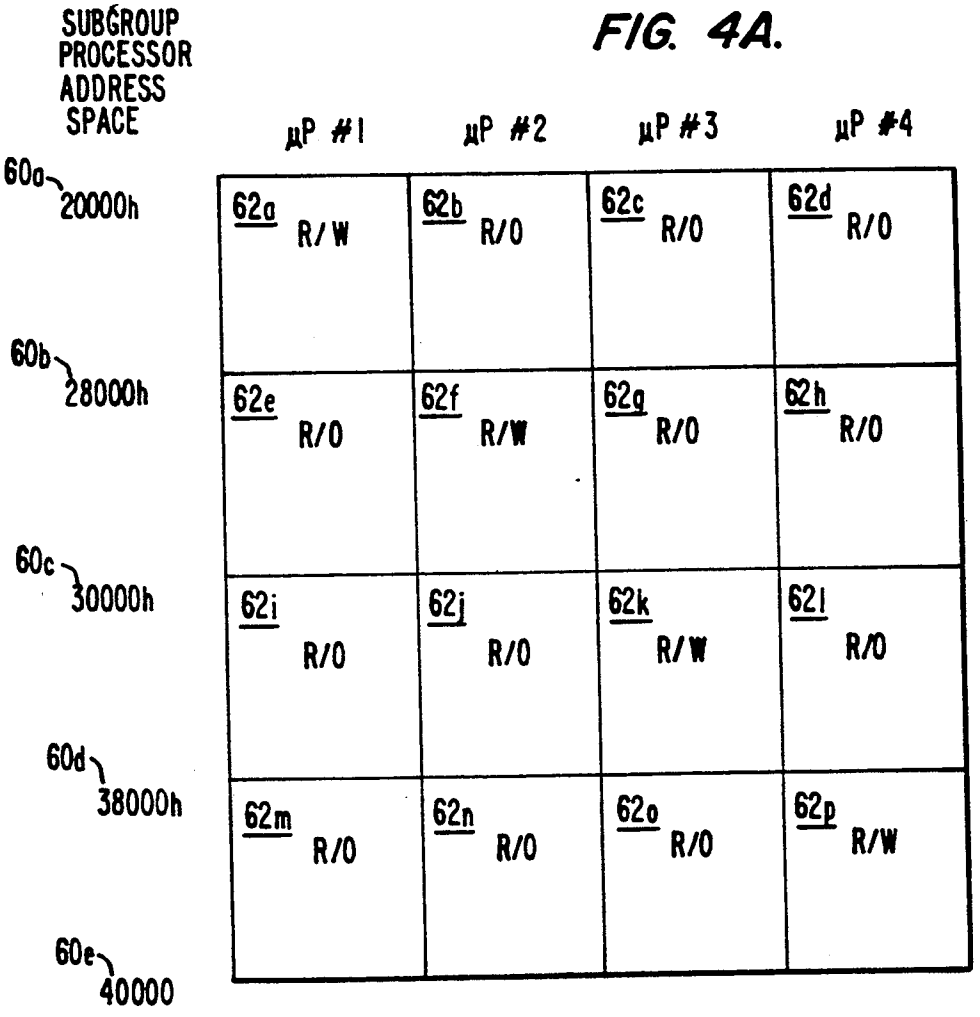


FIG. 4B.

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