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United States Patent [19]

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Brand et al.

[45] Date of Patent: **Aug. 17, 1993**

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

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[21] Appl. No.: 331,217

[57] ABSTRACT

[22] Filed: Mar. 30, 1989

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™ 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 multi-processor 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.

[51] Int. Cl.⁵ H04L 12/44

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

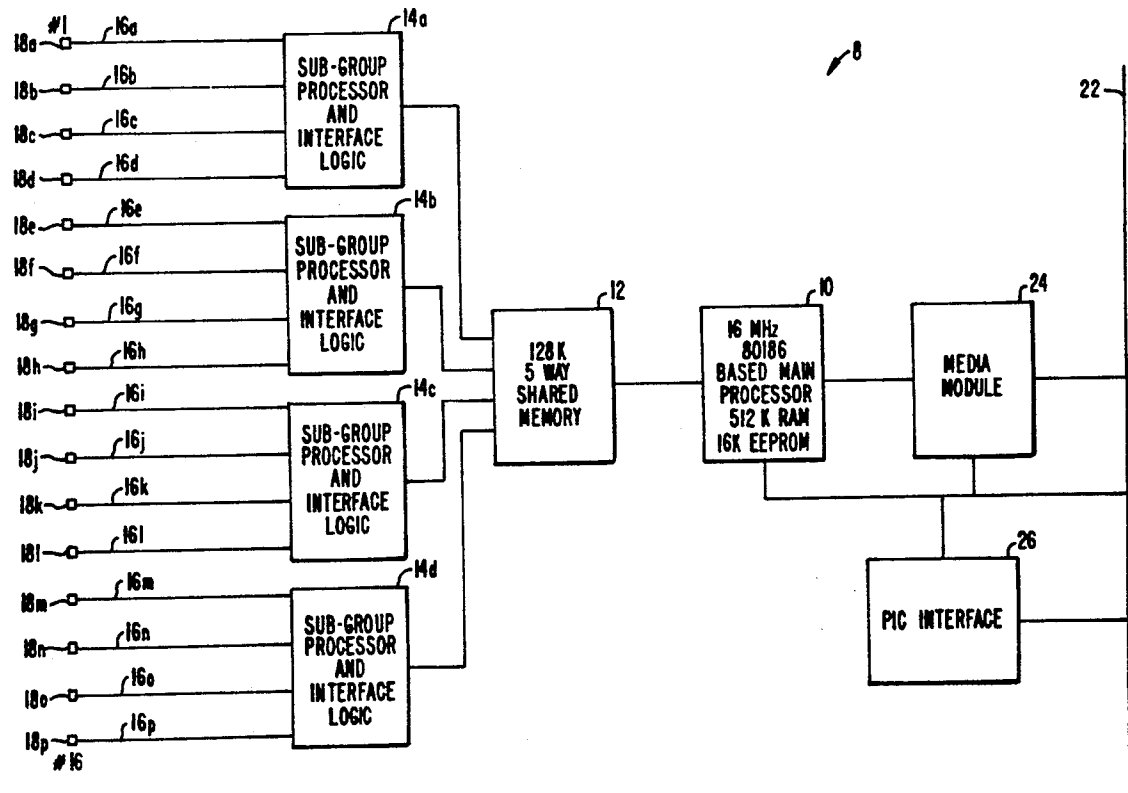
[58] Field of Search 370/85.1, 94.3, 61, 370/67, 85.13, 85.14, 91, 92, 85.4, 60.1, 85.3, 66, 68, 60; 379/88; 340/825.03, 825.52

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15 Claims, 6 Drawing Sheets



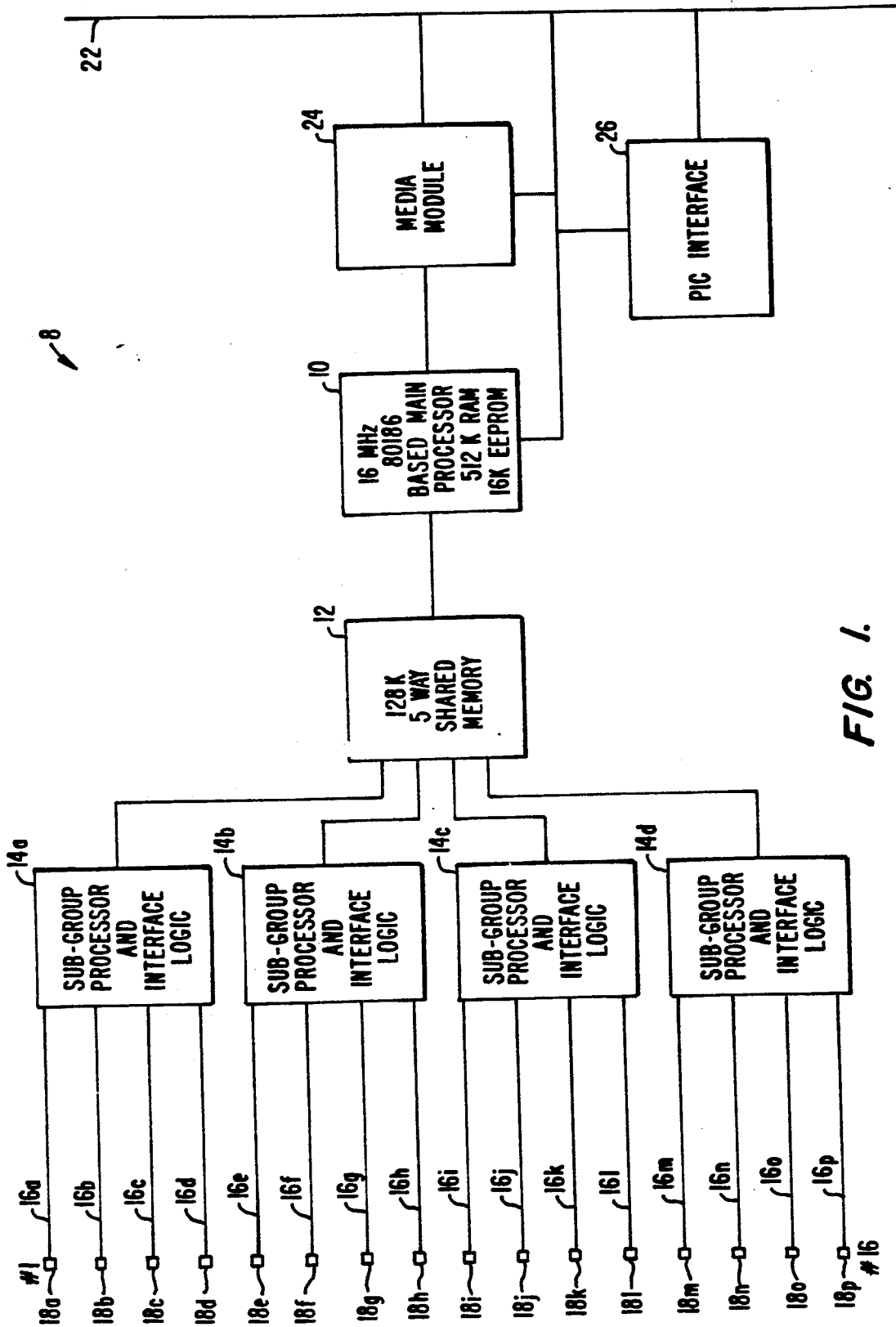


FIG. 1.

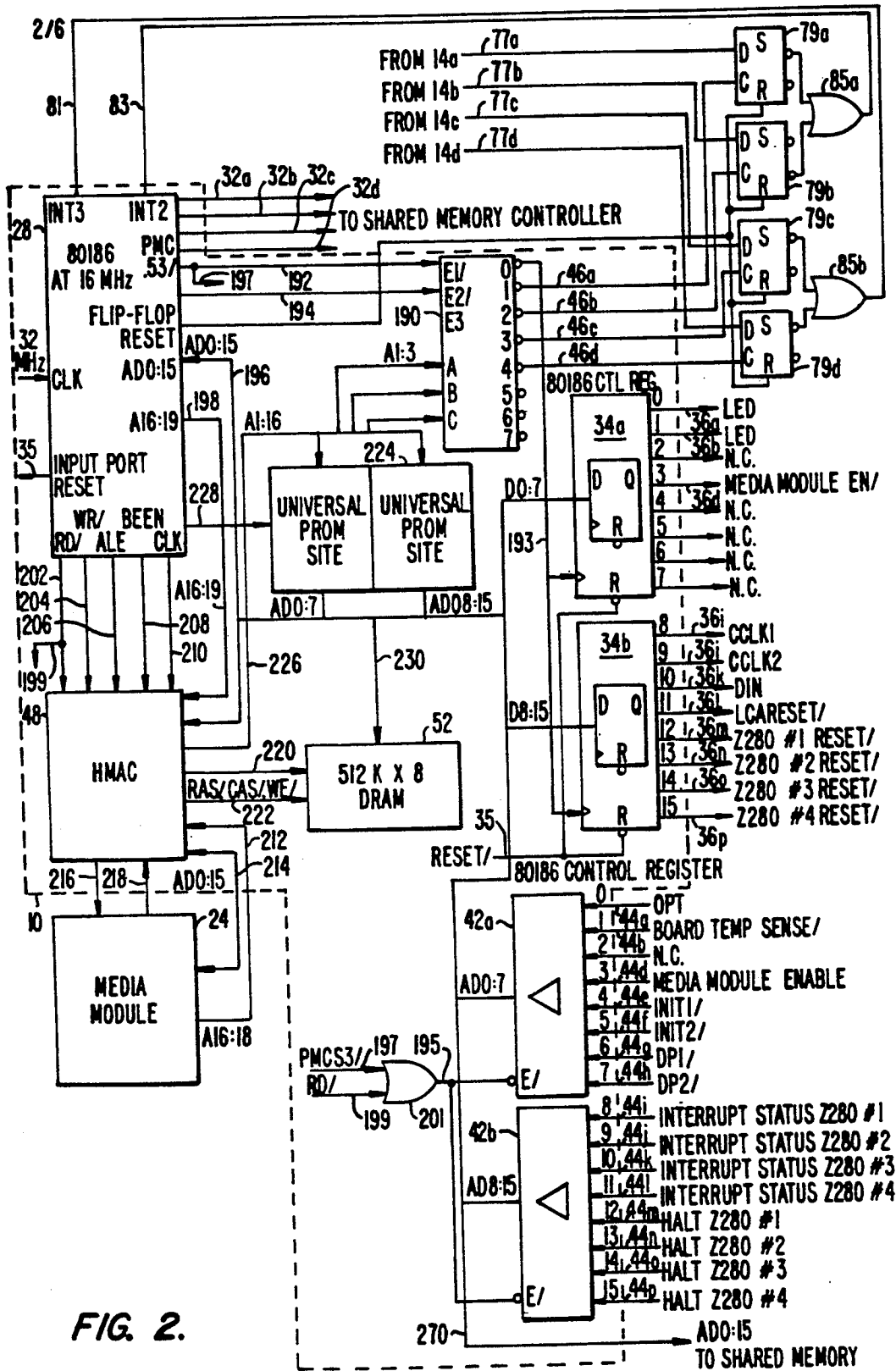


FIG. 2.

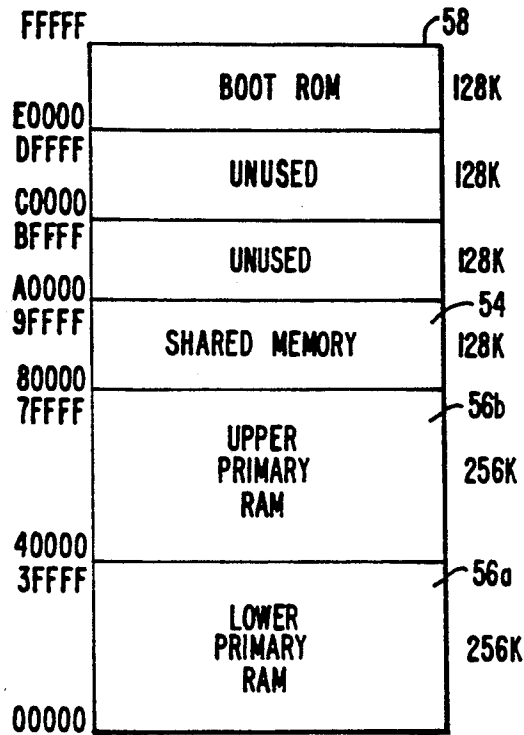


FIG. 3.

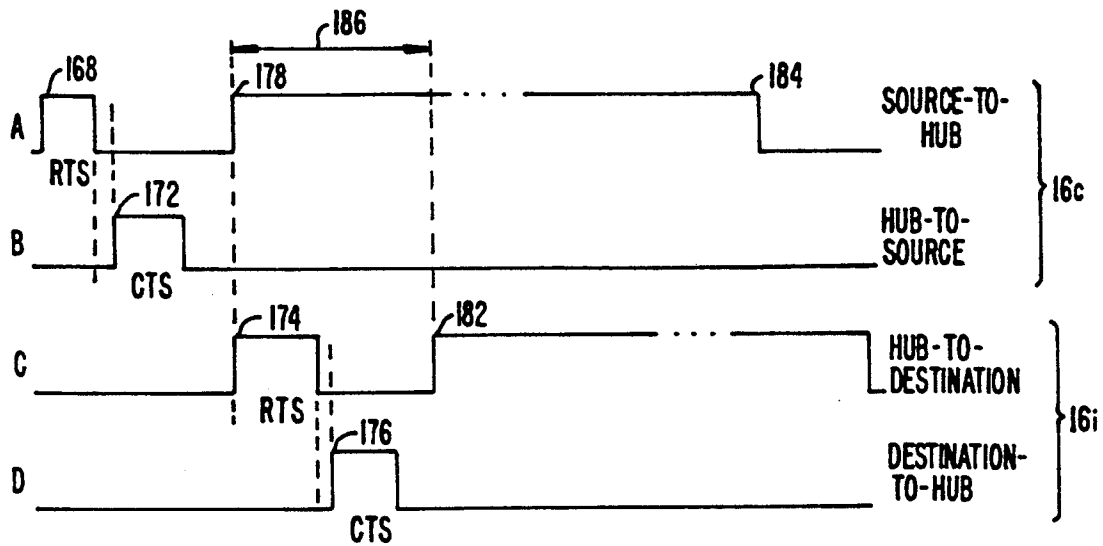


FIG. 9.

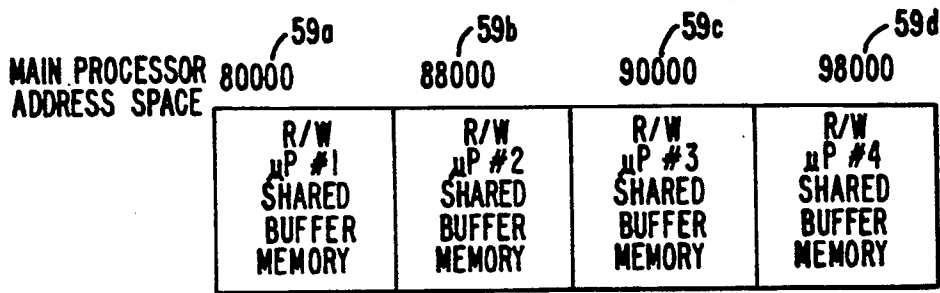


FIG. 4A.

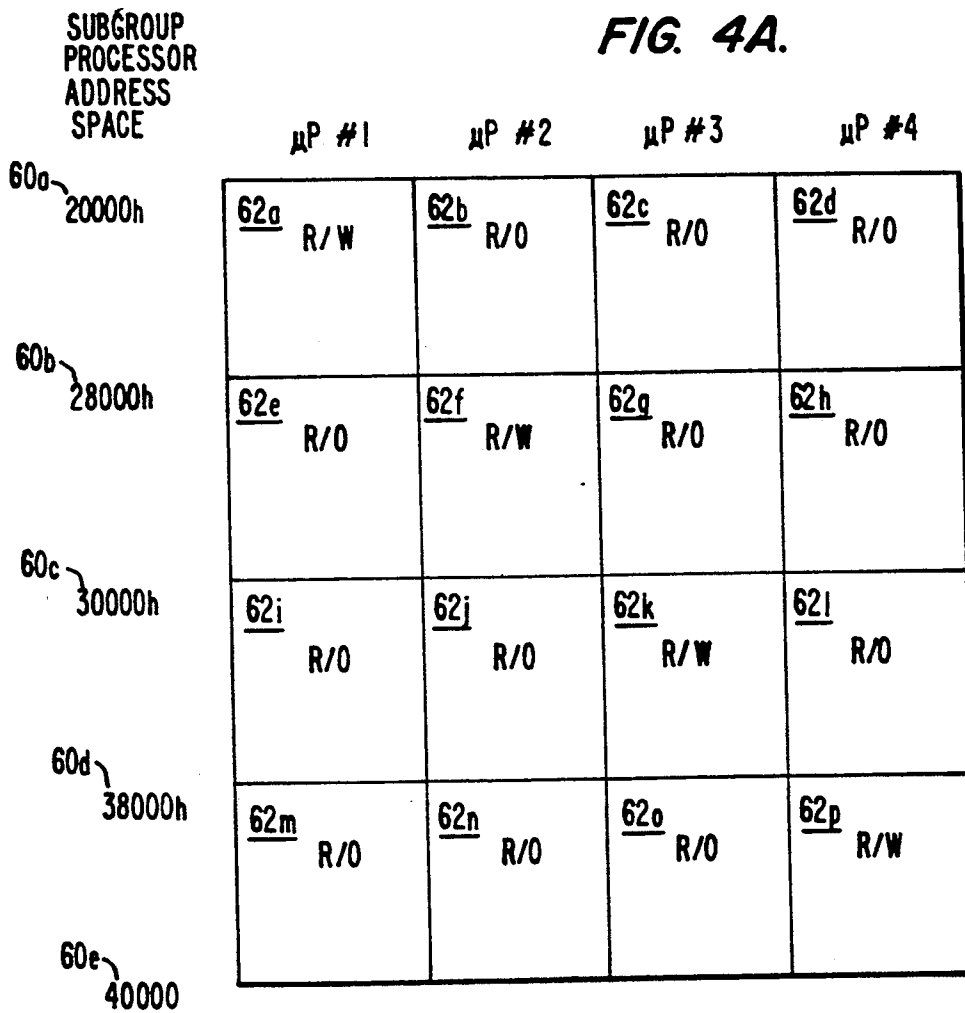


FIG. 4B.

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