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(54) **APPARATUS AND METHOD FOR INTERCONNECTING A PROCESSOR TO CO-PROCESSORS USING A SHARED MEMORY AS THE COMMUNICATION INTERFACE**

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G06F 13/00 (2006.01)

(Continued)

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709/250, 238; 345/503

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See application file for complete search history.

(57) **ABSTRACT**

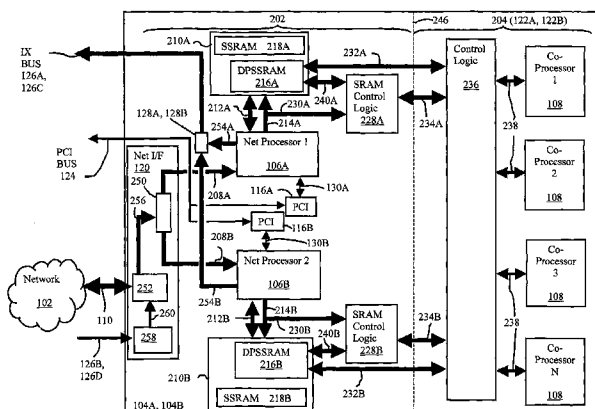
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An apparatus and method for interfacing a processor to one or more co-processors provides a dual ported memory to be used as a message passing buffer between the processor and the co-processors. Both the processor and co-processors can connect asynchronously to the dual ported memory. Control logic monitors activity by the processor to alert the co-processors of communications by the processor written to the memory and otherwise allows the processor and co-processors to think they are interfacing directly with one another.

42 Claims, 16 Drawing Sheets



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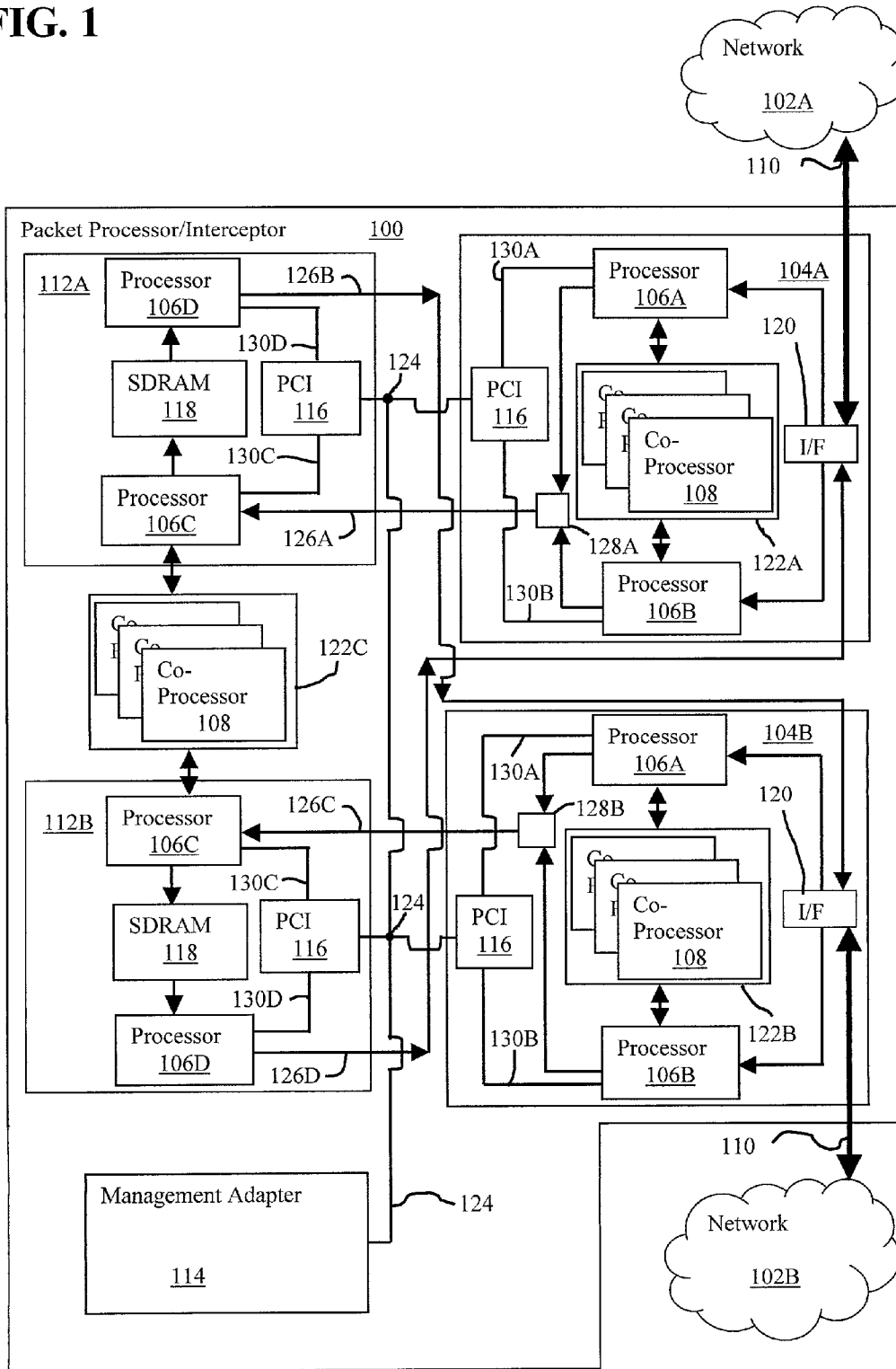
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FIG. 1



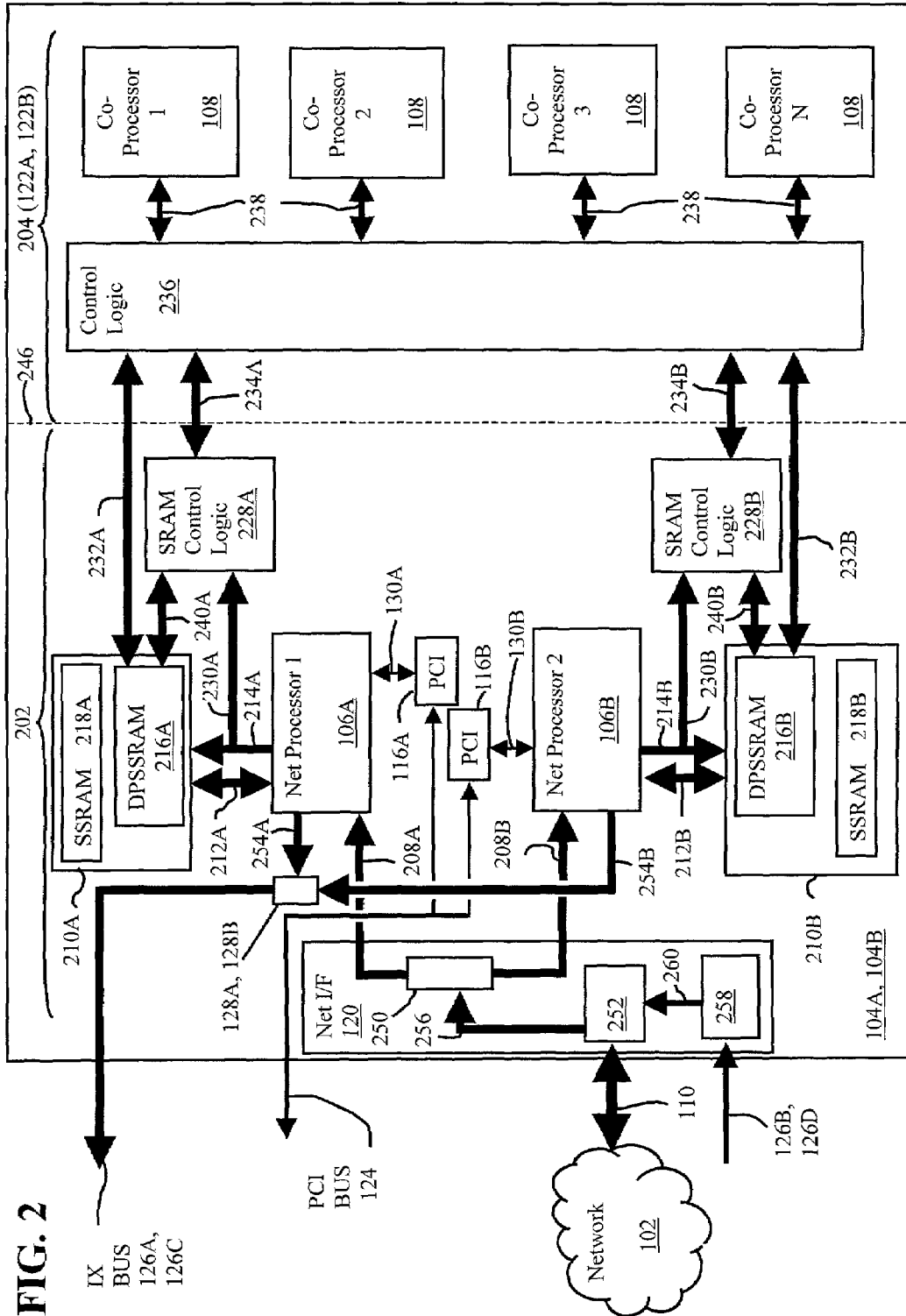


FIG. 2

IX BUS
126A,
126C

PCI BUS
124

Network
102

110
126B,
126D

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