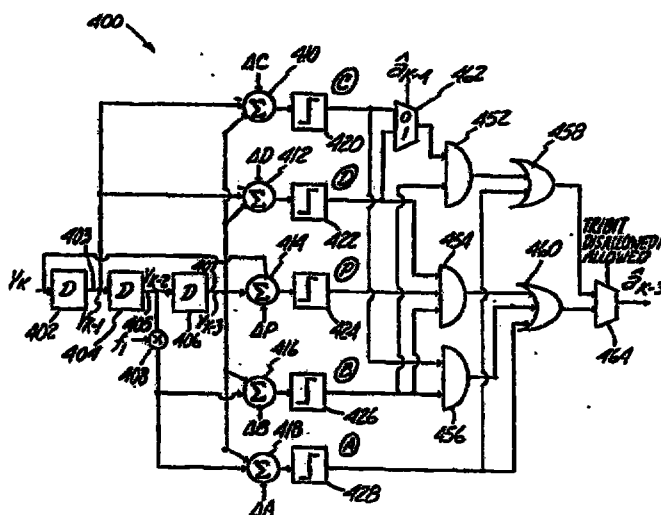


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(57) Abstract

A detector (400) of the present invention is provided to detect data values with a data signal that is sampled to provide temporally separated data samples. A first detector portion (462, 452, 458) is configured to determine the location of a first sample vector in a first signal space. A second detector portion (454, 456, 460) is configured to determine the location of a second sample vector in a second signal space. The second detector portion determines the location by using a logic statement to combine a plurality of location indicators. Each location indicator provides the location of the second sample vector relative to a respective boundary surface. The form of the logic statement is independent of the values of the location indicators. In addition, each location indicator is independent of all other location indicators.