

DOT PRODUCT CIRCUIT FOR MULTIPATH RECEIVERS

ABSTRACT

A method and apparatus for computing a scalar projection of a vector onto another vector. The apparatus comprises a multiplying circuit (94) and a summing circuit (96). The multiplying circuit (94) is for multiplying a value representative of a first component of a first vector with a value representative of a first component of a second vector to provide a first intermediate value, and for multiplying a value representative of a second component of a first vector with a value representative of a second component of a second vector to provide a second intermediate value. The summing circuit (96) sums the first and second intermediate values to provide a resultant value representative of the scalar projection of the first vector onto the second vector. The apparatus may further comprise a first storing circuit (80,82), a first selection circuit (88), a second storing circuit (84, 86) and a second selection circuit (90). The first storing circuit (80,82) is for storing the values representative of the vector, and the second storing circuit (84,86) is for storing the values representative of the first and second components of the second vector. The selection circuit (88,90) provides an ordered supply of these values to the multiplying circuit (94).

FIGURE 6

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