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(54) Title: MULTIPLE-INPUT MULTIPLE-OUTPUT OFDM SYSTEMS

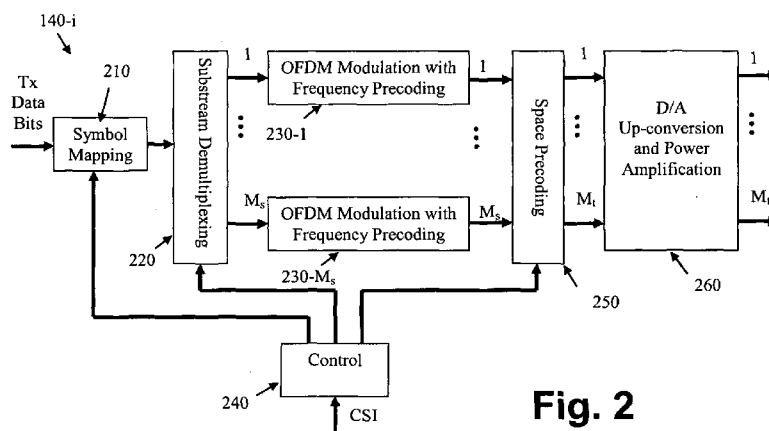


Fig. 2

(57) Abstract: Disclosed is a method of processing a series of data bits for transmission on a transmit link, the method comprising mapping the series of data bits to a series of data symbols; demultiplexing the series of data symbols to a plurality of substreams of symbols; modulating each substream of symbols to a corresponding series of OFDM symbols; and space precoding the plurality of series of OFDM symbols to form one or more series of space precoded OFDM symbols, wherein the demultiplexing is dependent on channel state information for the transmit link.

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