

Listing of Challenged Claims of U.S. Patent No. 7,529,305

(Bracketed Notations (e.g., [a.1] added)

Claim 1

- 1[p]** A transmitter adapted to process a plurality M of symbol substreams, the transmitter comprising:
 - 1[a.i]** a space-time coding block adapted to produce M space-time coded symbols per input set of M symbols,
 - 1[a.ii]** each input set of M symbols comprising one symbol per symbol substream,
 - 1[a.iii]** each of the M space-time coded symbols being included in a respective one of M space-time coded streams,
- 1[b]** wherein each symbol of the M symbol substreams is represented in all M space-time coded streams,
- 1[c]** wherein the transmitter comprises a delay arrangement, arranged such that for each symbol of the M symbol substreams a time of representation of the symbol in the M space-time coded streams is different for each of the M space-time coded streams,
- 1[d]** each space-time coded symbol comprising a representation of a symbol of each of the M symbol substreams;
- 1[e]** a plurality M of transmit antennas each adapted to transmit a respective one of the M space-time coded streams,
- 1[f]** such that for each symbol of each input set of M symbols, the M space-time coded symbols that contain a representation of the symbol are transmitted at different times.

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Claim 2

- 2** A transmitter according to claim 1 further comprising a demultiplexing and encoding block comprising a demultiplexer having M outputs, and M encoder/modulators each producing a respective one of the M symbol substreams, with each of the M encoder/modulators connected to receive a respective one of the demultiplexer outputs.

Claim 3

- 3** A transmitter according to claim 2 wherein the demultiplexing and encoding block is adapted to produce the M symbol substreams from an input stream.

Claim 6

- 6[a]** A transmitter according to claim 1 wherein the delay arrangement comprises: delay elements adapted to insert a delay in at least one of the M substreams; and
- 6[b]** the space-time coding function further comprises an orthogonal transform adapted to produce M orthogonal outputs, with the mth orthogonal output being a function of the M substreams delayed in said delay elements by $m-1$ symbol periods.