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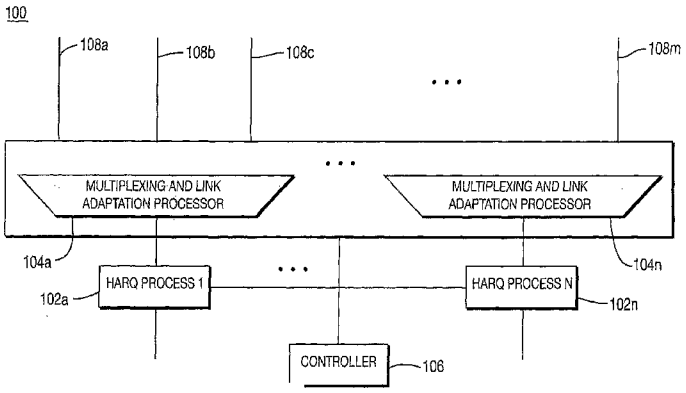
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(54) **Title:** METHOD AND APPARATUS FOR SELECTING MULTIPLE TRANSPORT FORMATS AND TRANSMITTING MULTIPLE TRANSPORT BLOCKS SIMULTANEOUSLY WITH MULTIPLE H-ARQ PROCESSES



(57) **Abstract:** A method and apparatus for selecting multiple transport formats and transmitting multiple transport blocks (TBs) in a transmission time interval simultaneously with, multiple hybrid automatic repeat request (H-ARQ) processes in a wireless communication system are disclosed. Available physical resources and H-ARQ processes associated with the available physical resources are identified and channel quality of each of the available physical resources is determined. Quality of service (QoS) requirements of higher layer data to be transmitted are determined. The higher layer data is mapped to at least two H-ARQ processes. Physical transmission and H-ARQ configurations to support QoS requirements of the higher layer data mapped to each H-ARQ process are determined. TBs are generated from the mapped higher layer data in accordance with the physical transmission and H-ARQ configurations of each H-ARQ process, respectively. The TBs are transmitted via the H-ARQ processes simultaneously.

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