



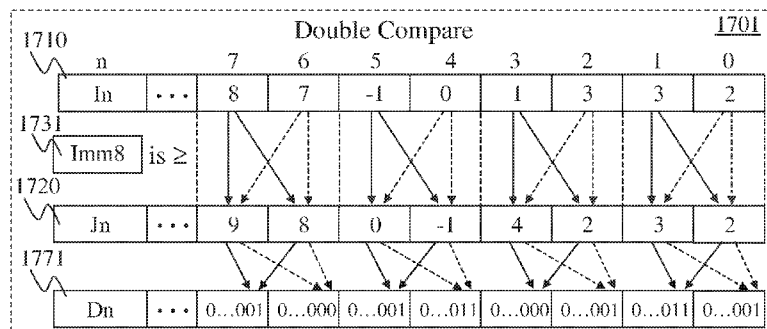
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(54) **Title:** METHODS, APPARATUS, INSTRUCTIONS AND LOGIC TO PROVIDE VECTOR PACKED TUPLE CROSS-COMPARISON FUNCTIONALITY



(57) **Abstract:** Instructions and logic provide SIMD vector packed tuple cross-comparison functionality. Some processor embodiments include first and second registers with a variable plurality of data fields, each of the data fields to store an element of a first data type. The processor executes SIMD instructions for vector packed tuple cross-comparisons in some embodiments, which for each data field of a portion of data fields in a tuple of the first register, compares its corresponding element with every element of a corresponding portion of data fields in a tuple of the second register and sets mask bits corresponding to elements of the second register portion, in a bit-mask corresponding to unmasked elements of the corresponding first register portion, according to the corresponding comparison. In some embodiments bit-masks are shifted by corresponding elements in data fields of a third register. The comparison type is indicated by an immediate operand.