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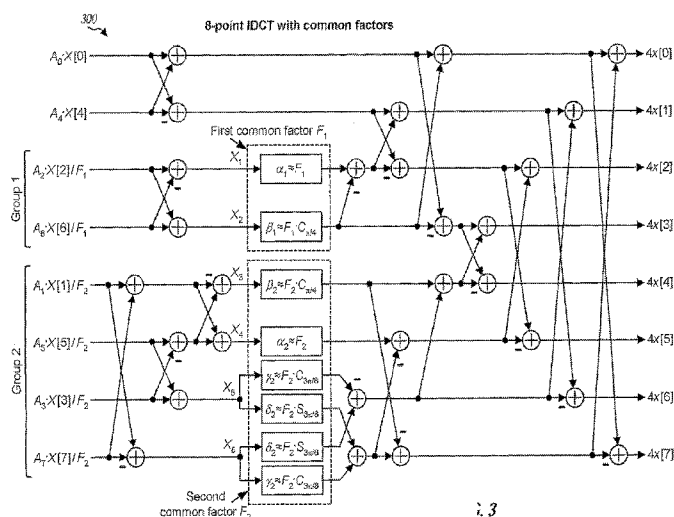
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: TRANSFORMS WITH COMMON FACTORS



(57) Abstract: Techniques for efficiently performing transforms on data are described. In one design, an apparatus performs multiplication of a first group of at least one data value with a first group of at least one rational dyadic constant that approximates a first group of at least one irrational constant scaled by a first common factor. The apparatus further performs multiplication of a second group of at least one data value with a second group of at least one rational dyadic constant that approximates a second group of at least one irrational constant scaled by a second common factor. Each rational dyadic constant is a rational number with a dyadic denominator. The first and second groups of at least one data value have different sizes. The first and common factors may be selected based on the number of logical and arithmetic operations for the multiplications, the precision of the results, etc.