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(54) **DATA COMPRESSION TECHNIQUES USING PARTITIONS AND EXTRANEOUS BIT ELIMINATION**

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(57) **ABSTRACT**

Partition information associated with one or more partitions that divide a range of values into at least a higher and lower set of values is received. An uncompressed value that falls within the range of values is received and a compressed value that includes a set indicator and intra-set information is generated using the uncompressed value. This includes generating the set indicator based at least in part on whether the uncompressed value falls in the higher or lower set of values, determining whether the uncompressed value includes an extraneous bit where it is necessary but not sufficient that the uncompressed value fall in the higher set of values for the uncompressed value to include the extraneous bit, and generating the intra-set information, including by: excluding the extraneous bit in the uncompressed value from the intra-set information if it is determined to be included. The compressed value is output.