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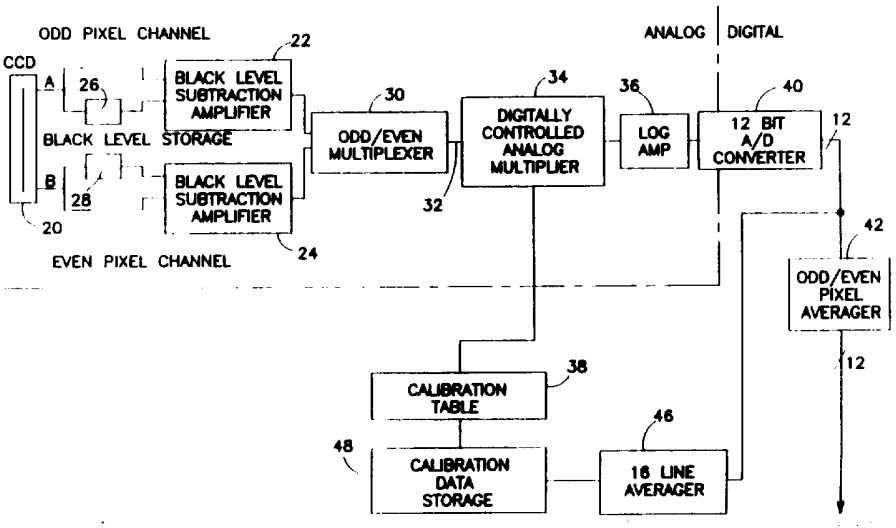

(57) Abstract

A charge coupled device linear sensor array (20) having a pair of sensor output channels (A, B), each for processing one half of the array sensor output channels (A, B), each for processing one half of the array sensor elements which are interleaved with the other half of the sensor elements. CCD outputs are read a plurality of times with the system on but no article in scanning position, with the multiple readings for each sensor element being averaged to provide an average reference level. These averages are stored in digital form, each to provide a calibration factor (multiplier). During scanning, each sensor element output is multiplied by the corresponding calibration factor to normalize each output to a common reference. Outputs for the first and second sensor element locations are averaged, the outputs for the second and third sensor element locations are averaged, etc. across the entire line, substantially eliminating any lack of tracking between the two output channels (A, B).

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