MULTI-SEGMENT LINEAR PHOTOSENSOR ASSEMBLY

Abstract of the Disclosure

An improved multi-segment linear photosensor assembly (10) is disclosed. The multi-segment linear photosensor assembly (10) is comprised of linearly aligned, adjacently positioned photosensor array segments. Each photosensor array segment comprises at least one linear array (30) of photodetectors (29) where the photodetectors (29) are spaced a constant distance (40) from each other. The photosensor array segments are spaced so that the distance (42) from the last photodetector (77) on one photosensor array segment (20) to the first photodetector (76) on an adjacent photosensor array segment (22) is a multiple of the constant distance (40) between photodetector (29) on a photosensor array segment. A processor (70) may calculate phantom pixel values to insert into the image data from the multi-segment linear photosensor assembly (10). The calculation to determine the phantom pixel values is based upon the first (76) and last (77) photodetector values of adjacent segments. The phantom pixel values are inserted into the multi-segment linear photosensor assembly (10) data as to emulate photodetectors (35) placed between adjacent photosensor array segments.

Figure 1