

ACQUIRING AND DISPLAYING IMAGES IN REAL-TIME

Abstract

An imaging device (100) for acquiring and displaying images in real-time, the imaging device comprising i) an imaging sensor (110) comprising a radiation sensitive array (120) for acquiring an image (142), ii) a readout circuit (140) connected to the radiation sensitive array for reading out the image, iii) a signal processor (160) for processing the image for obtaining a processed image (162), and iv) a display (180) for displaying the processed image, the radiation sensitive array being arranged in rows of sensor pixels and the display being arranged in rows of display pixels, and wherein the readout circuit is a rolling shutter circuit for sequentially reading out the rows of sensor pixels for sequentially providing subsets of pixels, the signal processor is configured for, on availability of one of the subsets of pixels, processing the subset of pixels for providing a processed subset of pixels, and the display is configured for, on availability of the processed subset of pixels, displaying the processed subset of pixels on a thereto corresponding subset of display pixels for displaying the processed image sequentially on the rows of display pixels.

Fig. 4