A Non-uniformity Correction Scheme using Multiple Analog Bus for an Uncooled Infrared Sensor

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We propose a non-uniformity correction scheme that employs analog buses connecting readout channels to correct the variation of the bias current in uncooled infrared detectors prior to amplification. One analog voltage is selected from an analog bus to adjust the bias voltage of the detectors. We have fabricated 320x240-pixels sensor with 160 readout channels by using two 16-level analog buses. The variation in the bias current for this sensor decreased to 1/38 (5.2-bit), which helps to improve the sensor's temperature stability.