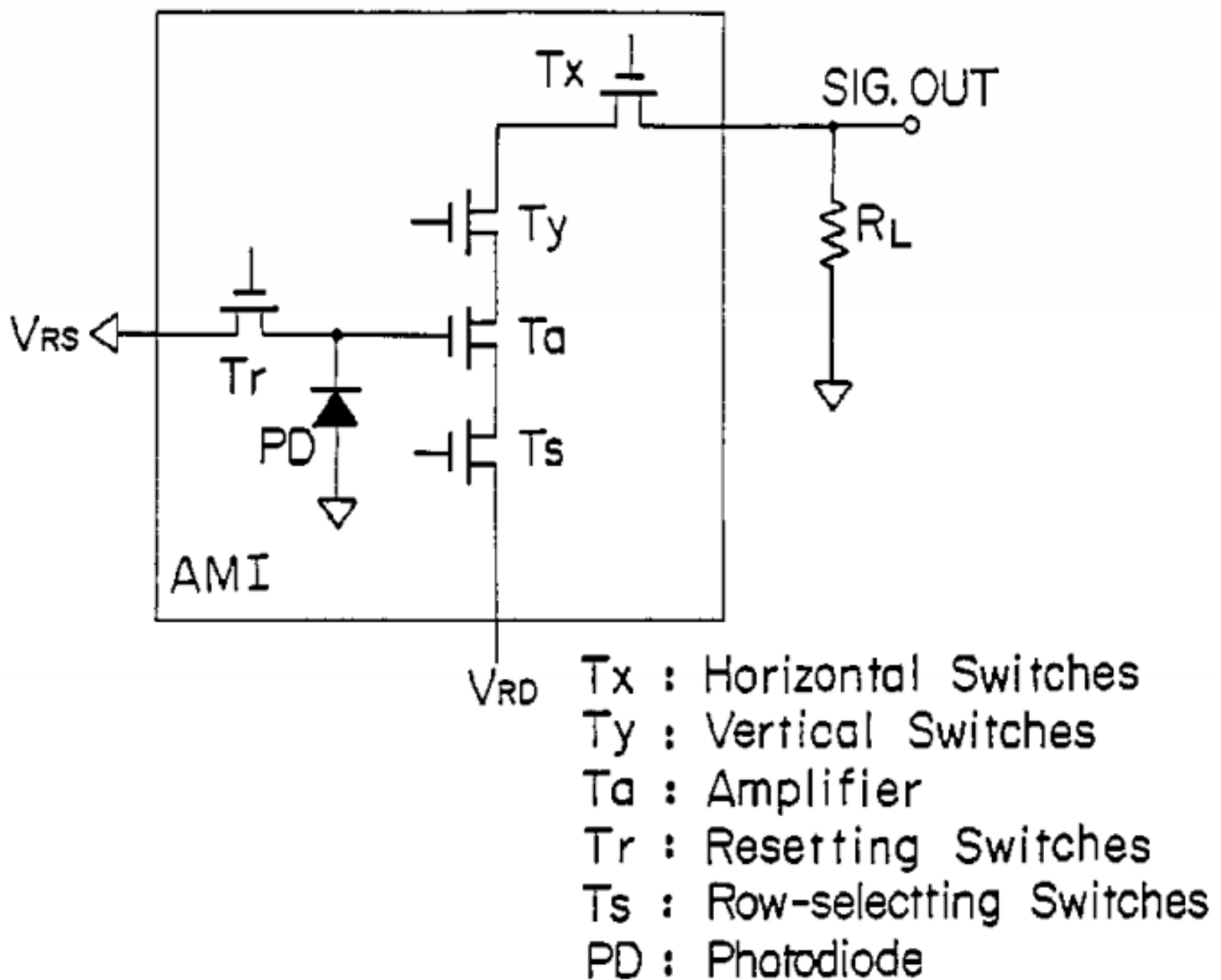


ACTIVE PIXEL SENSOR

ISSCC 1990



A 250,000-Pixel Image Sensor with FET Amplification at Each Pixel for High-Speed Television Cameras

CMOS IMAGE SENSORS have the advantage of functionality: extra digital or analog circuitry can easily be integrated on the same chip together with the image sensor. Andoh et al. (NHK) went even a step further: an amplifier is included within every pixel. This pixel, entitled Amplified MOS Imager (AMI), was the first version of what later became known as Active Pixel Sensor (APS) CMOS image sensors.

F. Andoh, K. Taketoshi, J. Yamazaki, M. Sugawara, Y. Fujita, K. Mitani, Y. Matuzawa, K. Miyata, S. Araki

NHK Science and Technical Research Laboratories, Tokyo, Japan