



## High Performance Silicon Imaging: Fundamentals and Applications of CMOS and CCD sensors (Paperback)

By -

ELSEVIER SCIENCE TECHNOLOGY, United Kingdom, 2018. Paperback. Condition: New. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.High Performance Silicon Imaging covers the fundamentals of silicon image sensors, with a focus on existing performance issues and potential solutions. The book considers several applications for the technology as well. Silicon imaging is a fast growing area of the semiconductor industry. Its use in cell phone cameras is already well established, and emerging applications include web, security, automotive, and digital cinema cameras. Part one begins with a review of the fundamental principles of photosensing and the operational principles of silicon image sensors. It then focuses in on charged coupled device (CCD) image sensors and complementary metal oxide semiconductor (CMOS) image sensors. The performance issues considered include image quality, sensitivity, data transfer rate, system level integration, rate of power consumption, and the potential for 3D imaging. Part two then discusses how CMOS technology can be used in a range of areas, including in mobile devices, image sensors for automotive applications, sensors for several forms of scientific imaging, and sensors for medical applications. High Performance Silicon Imaging is an excellent resource for both academics and engineers working in the optics, photonics, semiconductor,...



**READ ONLINE**

[ 8.08 MB ]

### Reviews

*Absolutely essential go through pdf. Yes, it is actually play, nevertheless an amazing and interesting literature. You are going to like how the article writer compose this book.*

-- **Pinkie O'Hara**

*The book is great and fantastic. It is probably the most remarkable pdf i have got read through. You can expect to like the way the article writer compose this ebook.*

-- **Mr. Ethel Schmeler**