

Image sensors



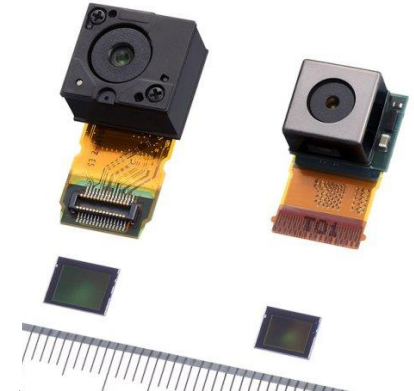
DSLR(sony)



Mobile phone
(iphone6)

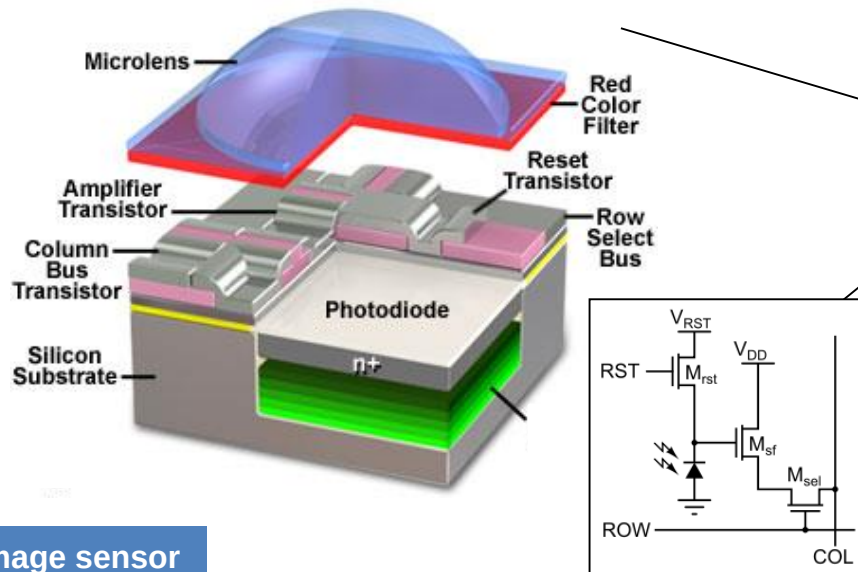


(GalaxyS6 edge)



Camera module
for mobile phone

Anatomy of the Active Pixel Sensor Photodiode



CMOS Image Sensor Integrated Circuit Architecture

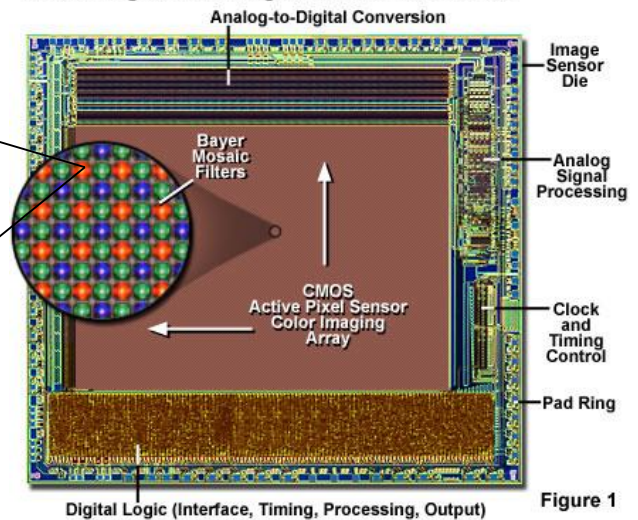
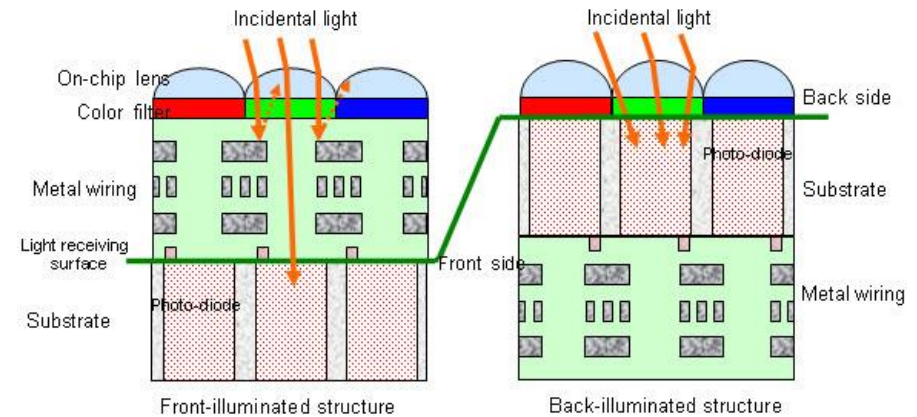
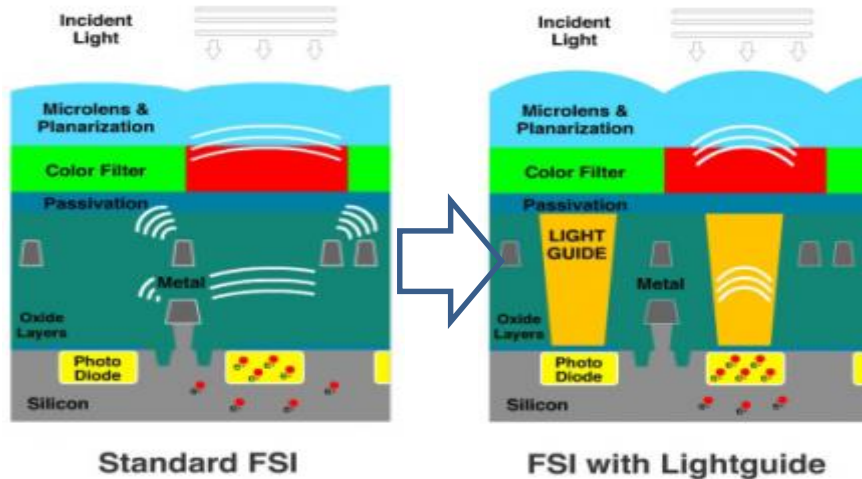
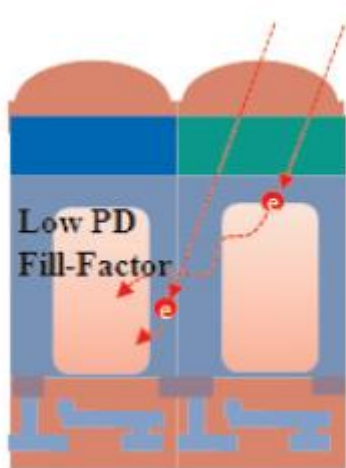


Figure 1

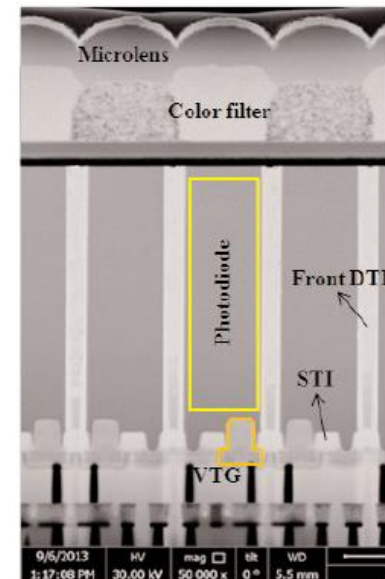
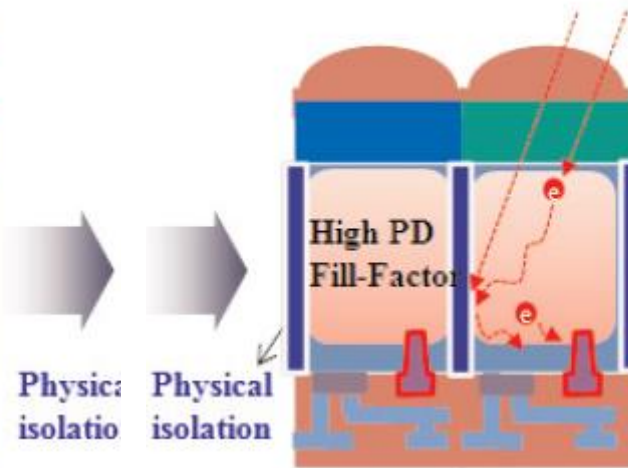
Image sensors



Conventional BSI Pixel

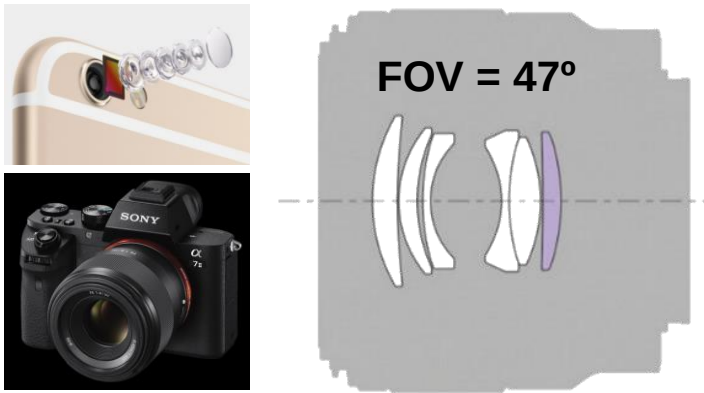


Front DTI Pixel



Man-made technology

Minimum multi-lens (Narrow FoV)



곡면형 이미지 센서 연구 개발 사례

First Image From Sony's Curved Sensor Surface Online

July, 2014



Microsoft Develops a Curved Sensor That Beats the Canon IDS Mark III

JUN 01, 2017 JAYPHEN SIMPSON



May, 2017

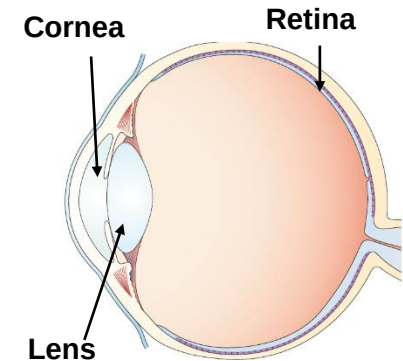
Y. M. Song et al., Adv. Funct. Mater. (2017)

VS

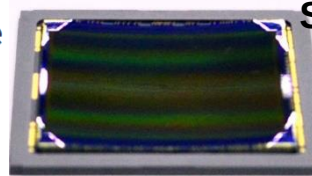
Biological strategies

One lens + Curved retina (Narrow FoV)

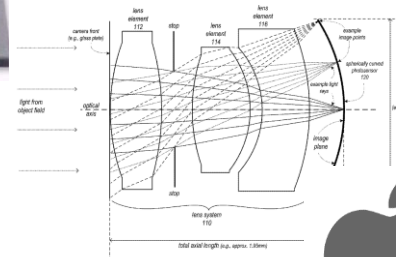
Human eye



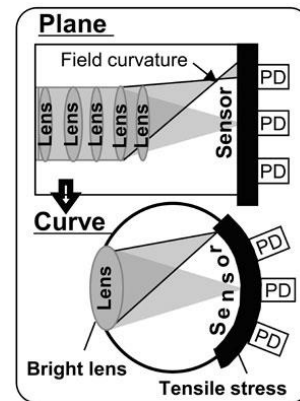
Curved sensor



Small Form factor high-resolution camera



Prototype camera



Feb, 2014