Invited Talk at CCD'79 @ Edinburgh, Scotland UK

ADVANCES in CCD IMAGERS

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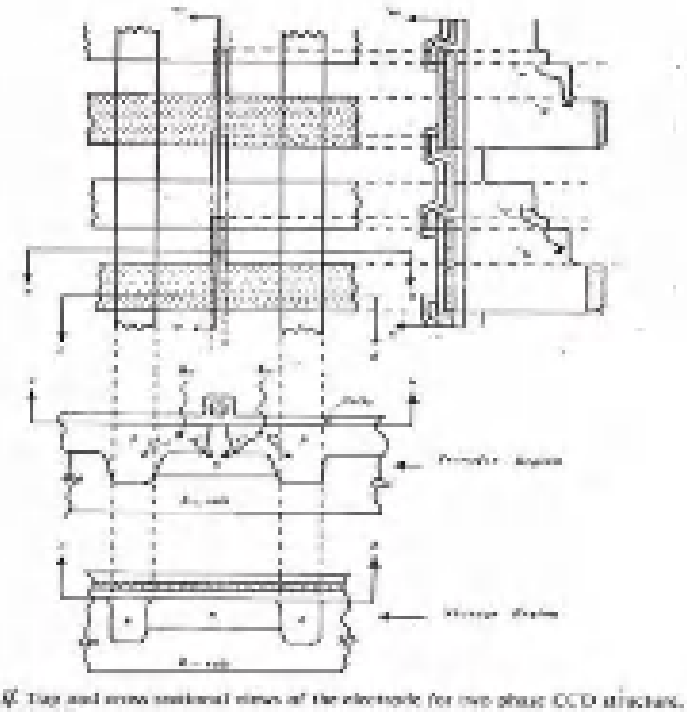
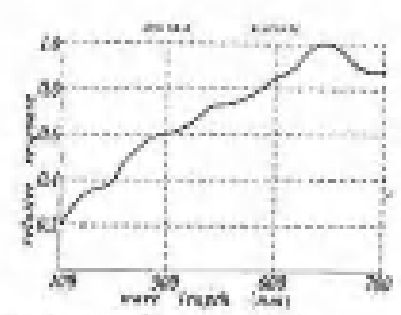
ABSTRACT

This paper provides a review of progress made in Sony on the technology and performance of CCD imagers for color video cameras. There are two basic approaches to realize a CCD image sensor, namely interline transfer organization and frame transfer organization. Sony has undertaken the design and fabrication of both types of the CCD imagers, and the development effort resulted in four different versions of CCD imagers. They are (1) a 242Hx 494V interline transfer CCD imager with high density structure,(2) zigzag-transfer CCD with checker-pattern sensing sites,(3) a 242Hx490v CCD imager with SiO2 exposed photo-sensing arrays in frame transfer organization and (4) a 380^x 488^ F.T. CCD imager with narrow channel transfer gates. In this paper, the designs and operations of these CCD imagers and their camera systems are described in detail.





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