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## The upside-down structure for X-ray imaging

Typical in-direct X-ray image sensor have used a upper scintillator, which is like CsI(Tl) or Gd<sub>2</sub>O<sub>2</sub>S. In soft X-ray imaging for mammography, most of X-ray Energy is absorbed a surface of scintillator. Thus, MTF and sensitivity of image sensor can be decreased. In our study, we adapted a upside-down structure, which has bottom sided scintillator of image sensor. In MCNP and LightTools simulation, light output and spatial resolution is increased more than 15%. The test is being set in our places and finished before the conference. The test chip have been fabricated in 0.18um 1P3M process.

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