

Purpose and Goal

Purpose
F/S of radiation tolerant image sensor technology for real time visualization in PCV and RPV

Goal
Radiation tolerance of 2 MGy

Overview and Feature

To realize visualization in PCV and RPV with our technical advantages.

Working samples of image pick up tube
Evaluation of image quality and radiation tolerance
Operation test of the working samples with camera
Research on the availabilities of materials
R&D plan for practical use

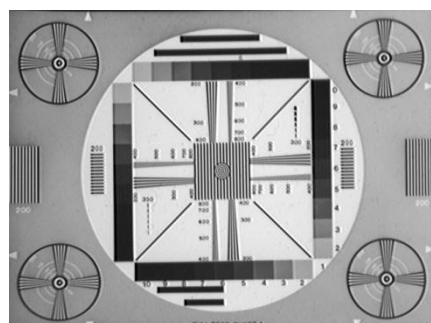
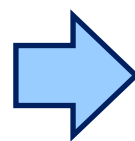
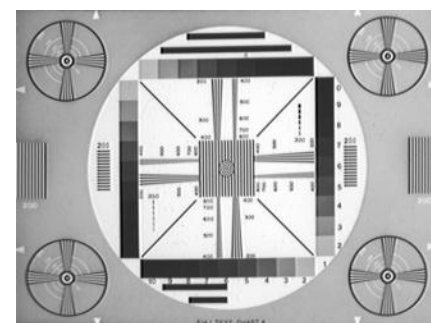
Outcome obtained

1. Working samples of image pick up tube and evaluation of characteristics
Both 1st working samples made of stocked materials and 2nd working samples made of newly supplied materials provide good image quality and characteristics.
2nd working samples have radiation tolerance of 2MGy.
2. Operation test of the working samples with camera
Two piece camera , diameter of camera head is about 40mm.
Good Image quality
Specifications of our tube are suitable for conventional cameras.
3. Materials of our image pick up tube for R&D will be available.
4. R&D plan for practical use
Objectives are mentioned in **“Challenges and Issues in the future”**.



2nd working sample

Image format : 2/3 inch
Focus and deflection : MM (Magnetic)
Faceplate : non-browning glass



before radiation exposure (2MGy , Co 60) after

Challenges and Issues in the future

Improvement of radiation tolerance
Improvement of image quality
Stability of process