

ERHXI

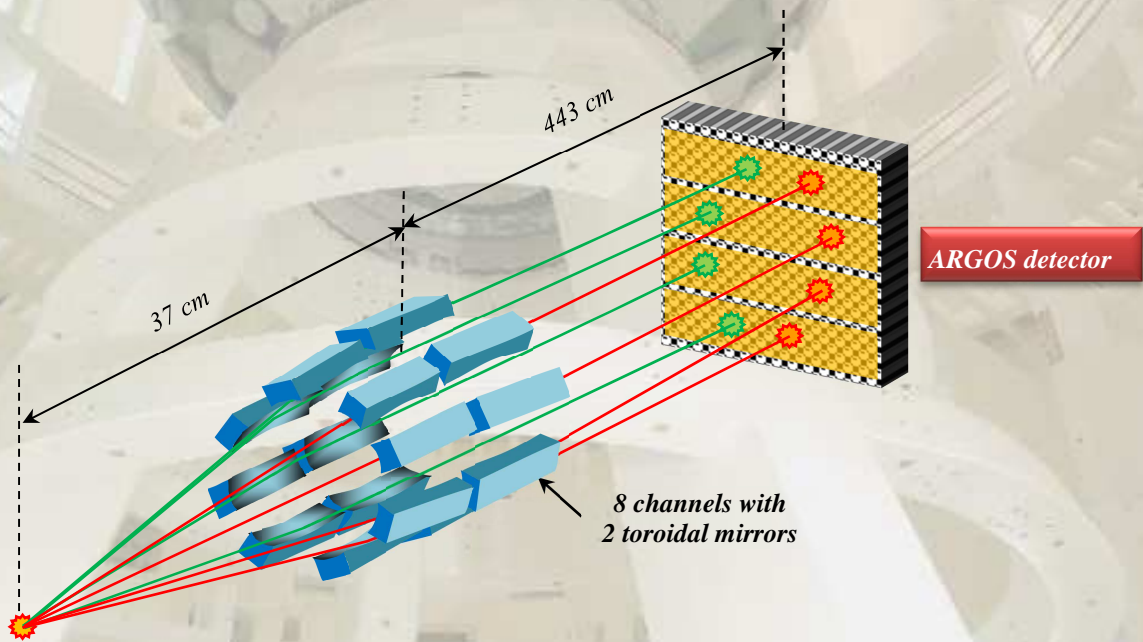
Enhanced Resolution Hard X-ray Imager

The Enhanced Resolution hard X-ray Imager, ERHXI, records time-resolved 2D image in the hard X-ray spectral region with a high spatial resolution. It is dedicated to X-ray radiography or hard X-ray emission of small size target (e.g. compressed ICF target).

It incorporates a microscope with large source-to-optic distance and a large size gated micro channel plate detector (ARGOS detector). The microscope includes eight X-ray channels, each consisting of 0.6° grazing angle-of-incidence bi-toroidal mirrors and a filter. Each image of the eight X-ray channels is produced along four micro channel striplines. The bi-mirrors are mounted in a Wolter-like configuration. They are coated with platinum graded multilayers to have a good reflectivity till 13 keV.

This imager must include a film protective holder to protect optical components from damages caused by target debris and UV radiation.

ERHXI is set up in the target chamber by a SID (System for Insertion of Diagnostics).



Characteristics	Spectral range	Spatial resolution (μm) / Field of view (mm)	Time resolution (ps) / Dynamic (ns)	Setting/ Operational
Magnification = 12				SID
8 time-resolved bi-toroidal mirror channels	0.5 - 13 keV	5 / 1	110 - 130 / 20	2019