

### GXI-2

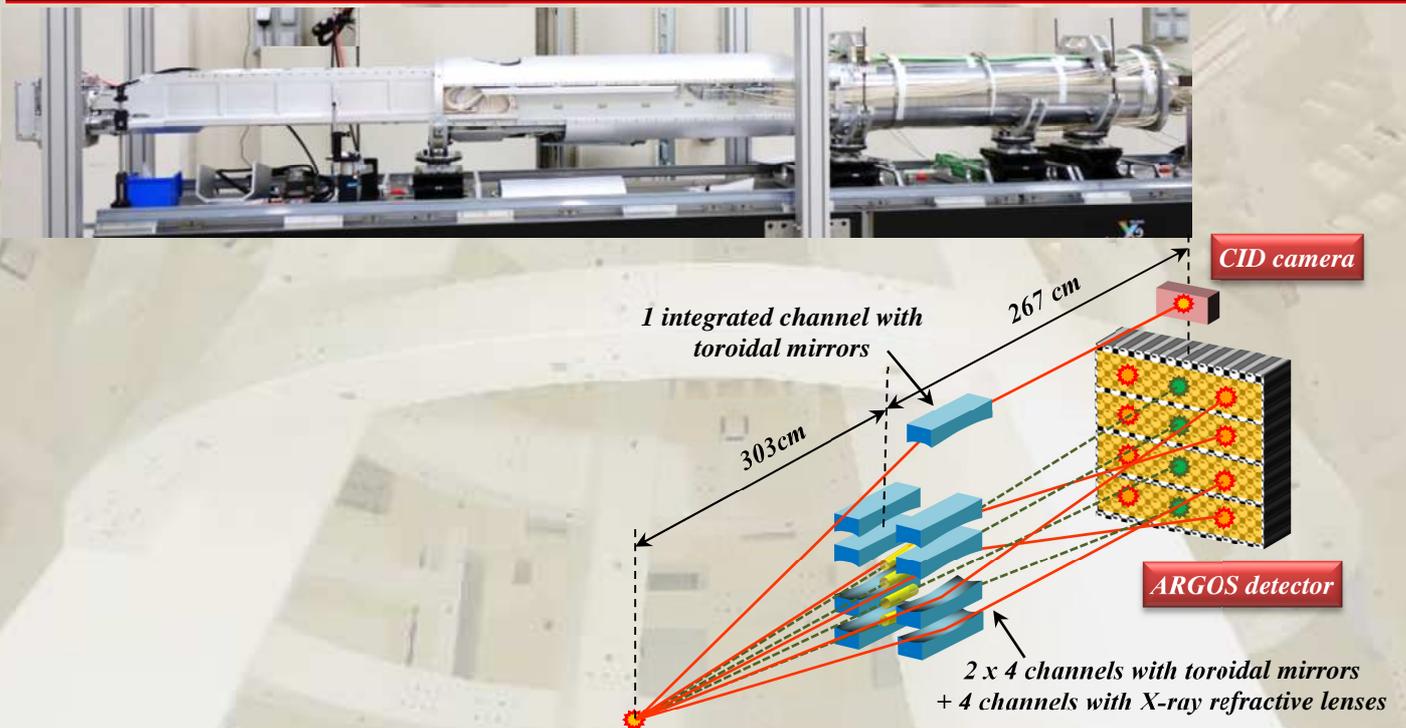
### Gated X-ray Imager 2

The X-ray imager, GXI-2, records time-resolved 2D image in the hard X-ray spectral region, on a large field of view. It is mainly dedicated to the control of laser beams pointing.

The GXI-2 incorporates a microscope with a very large source-to-optic distance (303 cm) and a large size gated micro channel plate detector (ARGOS detector). The microscope includes twelve X-ray channels: eight consisting of grazing angle-of-incidence mirrors and a filter, and four straight-through channels consisting of refractive lenses with a filter. Each image of the twelve X-ray channels is produced along four micro channel striplines.

GXI-2 also includes a three-film protective holder to protect optical components from damages caused by target debris and UV radiation. A filter holder is dedicated to select a broad band energy range on each column of four images on the detector. A CID camera, implemented close to the main detector, monitors X-ray emission with time integration and also controls internal alignment of the diagnostic. A photoconductive detector with a fast time response is mounted close to the framing camera to provide a fiducial.

GXI-2 is set up in the target chamber by a SID (System for Insertion of Diagnostics).



Characteristics	Spectral range	Spatial resolution ( $\mu\text{m}$ ) / Field of view (mm)	Time resolution (ps) / Dynamic (ns)	Setting/Operational
Magnification = 0.9				SID
2x4 time-resolved toroidal mirror channels	0.5 - 10 keV	150 / 15	110 - 130 / 20	
4 X-ray refractive lenses channels	6 -15 keV	150 / 15	110 - 130 / 20	2015
1 time-integrated mirror channel	0.5 - 10 keV	140 / 20	without	