

Progress update of the X-band Test Area beamline for upcoming experiments

Thursday 29 August 2024 16:00 (2 hours)

The X-band Test Area (XTA) is a test accelerator beamline consisting of a 5.5 cell X-band electron gun followed by a 1-m long X-band linac. It delivers an 85 MeV electron beam up to hundreds of pC. Here we report the beam dynamics studies of XTA to prepare it for THz streaking and silicon carbide irradiation experiments. This paper talks about the requirement and the simulation studies to prepare XTA for both experiments.

Footnotes

Funding Agency

This work was supported by the U.S. Department of Energy Contract No. DE-AC02-76SF00515 with SLAC National Accelerator Laboratory.

Author: TAN, Wei Hou (SLAC National Accelerator Laboratory)

Co-authors: GABRIEL, Annika (SLAC National Accelerator Laboratory); KANDIL, Sara (SLAC National Accelerator Laboratory); PEQEUNO, Carlos (SLAC National Accelerator Laboratory); DHAR, Ankur (SLAC National Accelerator Laboratory); OTHMAN, Mohamed (SLAC National Accelerator Laboratory); SNIVELY, Emma (SLAC National Accelerator Laboratory); NANNI, Emilio (SLAC National Accelerator Laboratory)

Presenter: TAN, Wei Hou (SLAC National Accelerator Laboratory)

Session Classification: Thursday Poster Session

Track Classification: MC2: Electron Accelerators and Applications: MC2.2 Electron linac projects