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R&D of EOTD bunch length monitor for SXFEL

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As one of online single-shot and non-destructive absolute measure methods with high resolution, Electro-Optical (EO) techniques have been widely utilized in Free Electron Laser to measure the longitudinal bunch profile. A bunch length monitor with 100 fs resolution is required for Shanghai Soft X-ray FEL (SXFEL) facility. The solution based on Electro-Optical Temporal Decoding (EOTD) method has been developed and tested during the past year. This paper will present the whole design according to SXFEL condition and its test results.

Footnotes

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Paper preparation format

Region represented

Asia

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