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Electron beam test to the multi-stripline-based non-destructive energy spread monitor for the PAL-XFEL

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For the x-ray free electron laser operation, the correlated energy spread of electron beam should remain optimized for the best performance. However, it could be varied owing to the drift of RF stations, even though a feedback system with low-level RF is operating. Non-destructive energy spread monitoring could stabilize such a variation and offer a tool to maintain the correlated energy spread of electron beam in the optimized condition. In this work, by using the electron beam produced by the photocathode, we experimentally investigated a feasibility of stripline-based monitoring system for the energy spread monitor at XFEL facility.

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Footnotes

I have read and accept the Privacy Policy Statement

Yes

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