

New development of X-band LLRF for PAL-XFEL Linearizer

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Current X-band LLRF for PAL-XFEL has been operated reliably for about 8 years. However, the RF jitter and drift values of the LLRF were relatively big. Therefore, new development of X-band LLRF was initiated a few years ago. Current X-band LLRF in operation had been designed in direct- or single-conversion method between X and IF bands. The new X-band LLRF was designed to run in dual or two step conversion among X, S and IF bands to minimize development efforts by redeveloping only converter between X and S bands and by reusing S-band LLRF. The new LLRF showed about 2 times better values in jitter and drift at lab test. The new LLRF is expected to be installed and verified in July 2023.

Keyword

X band, LLRF, PAL-XFEL

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