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## Test Lab Klystron-Modulator System for RF Components Performance Test of PLS-II Linac

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Recently, we completed a performance upgrade of Test Lab klystron-modulator system for PLS-II RF Linac as well as new developed S-Band 80-MW klystron test. PLS-II main linac system are under an operation of 17 RF stations including S-Band 80-MW klystron. It will be used as a test station for a performance test of RF components for PLS-II RF Linac. Klystron as RF sources is one of critical components for stable beam energy control since its RF power output affects the electron beam energy. Pulse-to-pulse stability of RF linac klystron modulators is one of important issues in 3rd generation synchrotron machine for the top-up operation of the PLS-II linac. This machine requires highly stable RF sources with a stability of 0.01% rms, to meet the beam stability requirements. By adopting a precision capacitor charging power supply (CCPS), we achieved the beam voltage with less than a 100 ppm stability for the MK system. This paper discusses an operational characteristics and measurement results of the Test Lab pulsed MK system.

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### Footnotes

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