

Tune Measurement and Beam Damping System for PLS*, J.Y. HUANG, M.K. PARK, M. KWON, S.S. CHANG and M. YOON, PAL, POSTECH - The tune measurement system and the transverse damping system for PLS will be presented. PLS is a 2 GeV, 12 period, TBA lattice synchrotron light source. Design values of the tune are 14.28 horizontally and 8.18 vertically. The tune measurement system is equipped with tracking generator, power amplifiers and stripline kickers for the excitation of the beam. The tune frequency is detected with four pickup electrodes, line-length adjusters, signal processing hybrids and a spectrum analyzer. A prototype of the transverse damping system is now set up for the damping of the transverse beam instabilities. It has utilized a correlator filter and the system bandwidth is 250 MHz. The test results of the system will be described in this paper. Extension to the digital damping system in both transverse and longitudinal planes is also planned.

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