

Global Feedback System for Photon Factory Storage Ring, K. HAGA, T. HONDA, T. KASUGA, M. KATOH, T. OBINA, M. TADANO, KEK; N. NAKAMURA, M. SATOH ISSP - A fast global feedback system was installed on the upgraded Photon Factory storage ring in order to suppress the vertical orbit fluctuations, and its performance has been tested. We adopted the singular value decomposition (SVD) method to correct the orbit. The system that consists of 65 beam position monitors and 28 correctors is able to suppress the fluctuations due to the building vibrations with the spectral band width up to 20 Hz. The whole closed orbit distortions are measured and currents of the correctors are calculated in every 10 ms using floating-point DSPs on a VME system. The implementation of the digital signal processing scheme, correction system and results of the beam test are presented.