

Design of Beam Position Monitor System for KEKB,
N. AKASAKA, M. ARINAGA, S. HIRAMATSU,
T. IEIRI, H. ISHII, K. MORI, T. OBINA,
T. SHINTAKE, and M. TEJIMA, KEK - KEKB Beam
Position Monitor (BPM) system will have about
900 BPMs which is installed near every quadrupole
magnet in the ring. The BPM data will not only be
used for correcting closed orbit distortion and
optimizing the operation of the ring, it will be also used
for analysing the alignment and strength errors of
magnetic components. These require the BPM system
to have good stability and high precision. Therefore,
we adopt slow method measuring the average beam
position during many turns. Since a multi-bunch
(5000), high current beam (LER 2.6 A, HER 1.1 A)
will be stored at KEKB, we must pay special attention
to the design of the pickup electrode, transmission line,
switches and front-end electronics. This paper
describes design of BPM system for KEKB.