

High Performance Active Filter for the Power Supply of the HIMAC Synchrotron Magnet,
H. KUBO, Hitachi Ltd., M. KUMADA, NIRS - The relative ripple amplitude of the HIMAC synchrotron power supply was at a few ppm level during an initial commissioning period. The beam spill however, was not uniform enough. Since then we have been upgrading the power supply and finally arrived at a level of order of magnitude less than that of the commissioning stage, which is well below ppm. Addition of the band pass filter to the existing high pass filter greatly improved the performance of the active filter. With this improvement, ripple component was completely removed and the beam spill is now almost free from the ripple without using any other means such as spill feedback system. This paper describes the electric circuit design and its performance.