

Design of shunt structure to avoid TE mode in PLS-II storage ring vacuum chamber

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We, previously, proved that the noise in the vertical readback from some of beam position monitors (BPMs) in the vacuum chamber of Pohang Light Source (PLS) are caused by the transverse electric (TE) longitudinal harmonic resonances. Based on this analysis, we now design the shunt structure to remove the TE mode resonances near the BPMs operation frequency of 500 MHz in the storage ring vacuum chamber of PLS upgrade project (PLS-II). The simulation result and experimental test result will be presented.