

CLIC Beam Position Monitor Tests, J. SLADEN, I. WILSON, W. WUENSCH, CERN - Prototype CLIC beam position monitors (BPMs) have been tested in the CLIC test facility (CTF) using a 50 MeV, 1 nC single bunch beam. The test set-up consisted of two BPMs and a charge normalization/phase reference cavity. The detection electronics consisted of a 5 channel super-heterodyne receiver to give charge independent horizontal and vertical positions in each BPM. Data were taken and processed at the full 10 Hz CTF repetition rate using a PC running LABVIEW. Both BPMs were mounted on 0.1 μm resolution micromovers for displacement calibration. Separately testing both cavities and electronics in the lab has shown that the potential resolution of the BPM system is less than one micron. An upper limit on resolution of $\pm 4 \mu\text{m}$ has been demonstrated directly with the CTF beam. The measurement was limited by the shot to shot angular jitter of the CTF beam.