Electronic Supplementary Material (ESI) for Lab on a Chip. This journal is © The Royal Society of Chemistry 2017

Electronic Supplementary Information

Impedance spectroscopy-based cell/particle position detection in microfluidic systems

H. Wang,^{a§} N. Sobahi^{b§} and A. Han^{b,c,d}

§ These authors contributed equally.

^a Department of Biomedical Engineering, School of Medicine, Tsinghua University, China.

^b Department of Electrical and Computer Engineering, Texas A&M University,

College Station, TX, 77843, USA.

^c Department of Biomedical Engineering, Texas A&M University,

College Station, TX, 77843, USA.

^d Center for Remote Healthcare Technology and Systems (CRHTS), Texas A&M University, College Station, TX, 77843, USA.

*Correspondence should be addressed to Arum Han (arum.han@ece.tamu.edu).

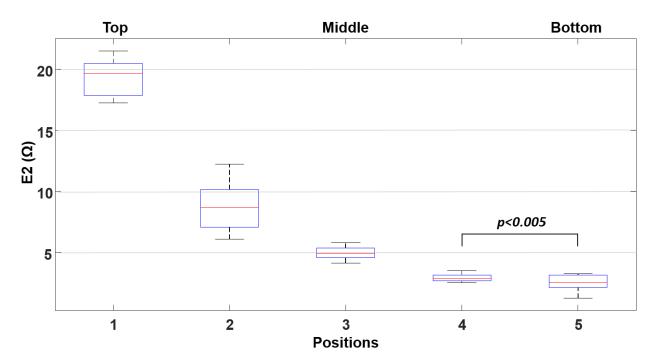


Fig. S1 The detected impedance peak amplitude at five different transverse positions using beads of $6 \,\mu$ m diameter. The peak amplitude signals are significantly different from position to position. The applied excitation signal condition was 3 V at 27 MHz.

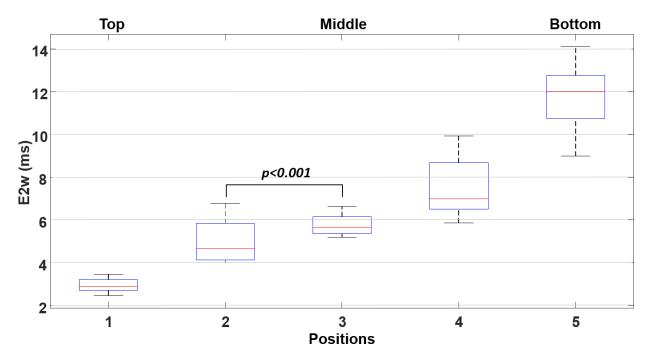


Fig. S2 The detected impedance peak width at five different transverse positions using beads of 6 μ m diameter. The peak width signals are significantly different from position to position.