

A Low Cost X-Band Resonant Button BPM

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Abstract

The FONT (feedback on nanosecond timescales) experiment on the Next Linear Collider Test Accelerator requires time resolved position measurements on an electron beam bunched at 11.4 GHz. A simple, low cost BPM composed of commercial vacuum parts has been constructed and tested. This BPM operates by tuning the resonant frequency of the vacuum feedthroughs to enhance the response at X-band. Test results are presented.