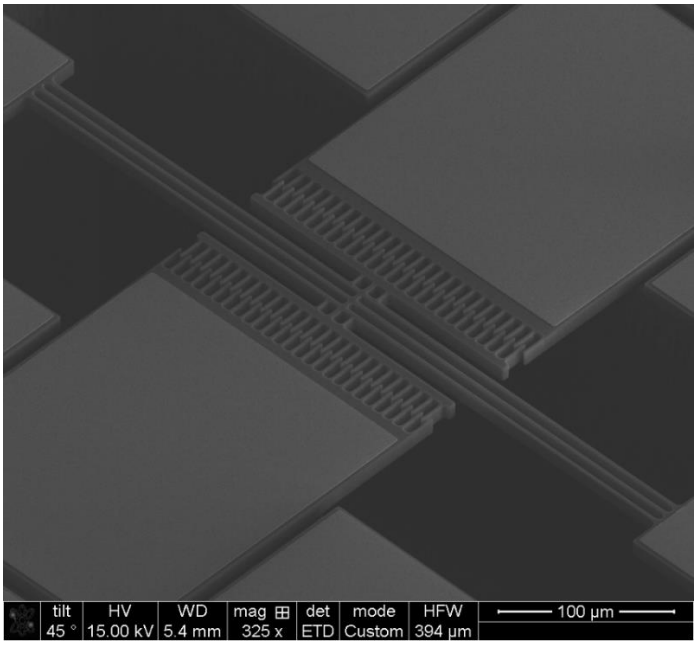
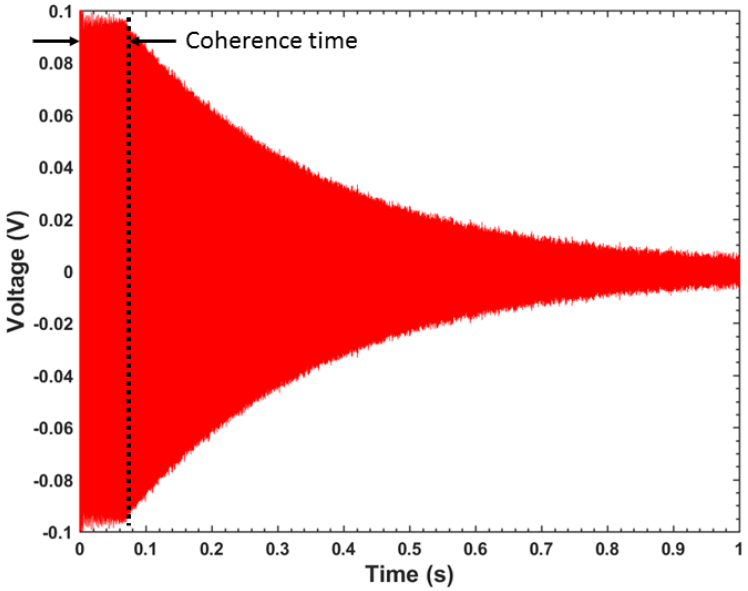



Scanning electron micrograph of the MEMS oscillator, consisting of three, single-crystal silicon, doubly clamped beams connected at the center. The fundamental mode of oscillation is an in-plane flexural mode while a torsional mode is observed at a frequency of approximately three times the fundamental mode. The oscillator is driven by one of the comb drives and the motion is transduced by the opposite comb drive.




Graph showing the response of the resonator after the restoring energy has been turned off (t=0). For the following ~0.1 s, coherence time, the frequency of the resonator is constant while the amplitude of the resonator remains approximately constant. After the stored energy is depleted, the resonator begins the expected “ring-down” behavior.