

Parallel-Plate Capacitive Nonlinearity

UC Berkeley

- **Example:** clamped-clamped laterally driven beam with balanced electrodes
- **Nomenclature:**

V_a or v_A $v_a = |v_a| \cos \omega t$ *small-sig ac*

V_A $V_A(t)$ $V_A(t)$

dc bias V_a $V_A(t)$

V_a or $v_A = V_A + v_a$

Total Value AC or Signal Component
 (upper case variable; upper case subscript) (lower case variable; lower case subscript)

DC Component

Electrode Conductive Structure k_m

d_1 m x F_{dl}

V_1 V_p

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