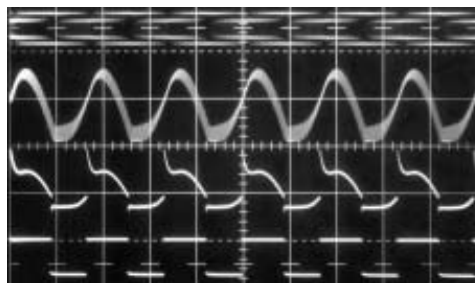


Figure 4

(a)

A heterodyne-based humidity-transducer digitizer has a grounded sensor and 2% accuracy (a). The circuit mixes sensor and stable oscillators at Q₁'s base (Trace A), and the difference in frequency appears at Q₁'s collector (Trace B). Filtering and ac hysteresis produce a clean IC₂ output (Trace D) (b).

- A (Q₁ BASE, 2V/DIV)
- B (Q₁ COLLECTOR, 2V/DIV)
- C (IC₂ INPUT, 1V/DIV)
- D (IC₂ OUTPUT, 5V/DIV)



(b) HORIZONTAL SCALE=50 μSEC/DIV