PIR and NCS36000 Amplifier

C7, R6, and R7 set the oscillator frequency of the NCS36000. Ex: C7=100nF, R6+R7=220k, Osc Freq = 62.5 Hz. Higher resistance = higher frequency.

VCC Range: 3.0 – 5.75V

The NCS36000 features a 2-stage amplifier - gain and passband are set by passive components R1-R4 & C1-C4. Ex: R1=R3=10k, R2=R4=560k, C1=C3=33uF, C2=C4=10nF creates a 70dB passband gain with cutoff frequencies around 700kHz and 20Hz. Subbing a potentiometer in for R4 enables dynamic selection of the system's sensitivity.

Single/Dual Pulse Mode Select

MODE selects the pulse-count mode. * Single-pulse (MODE=LOW) OUT will trigger if either comparator toggles and de-glitch time is appropriate length. * Dual-pulse (MODE=HIGH) Requires two pulses - one from each comparator - within 312 clock cycles.

LED Activity Indicator

The LED_EN pin enables the LED output when motion has been detected. It's active-low. During start-up the LED will toggle regardless of LED_EN's state.

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