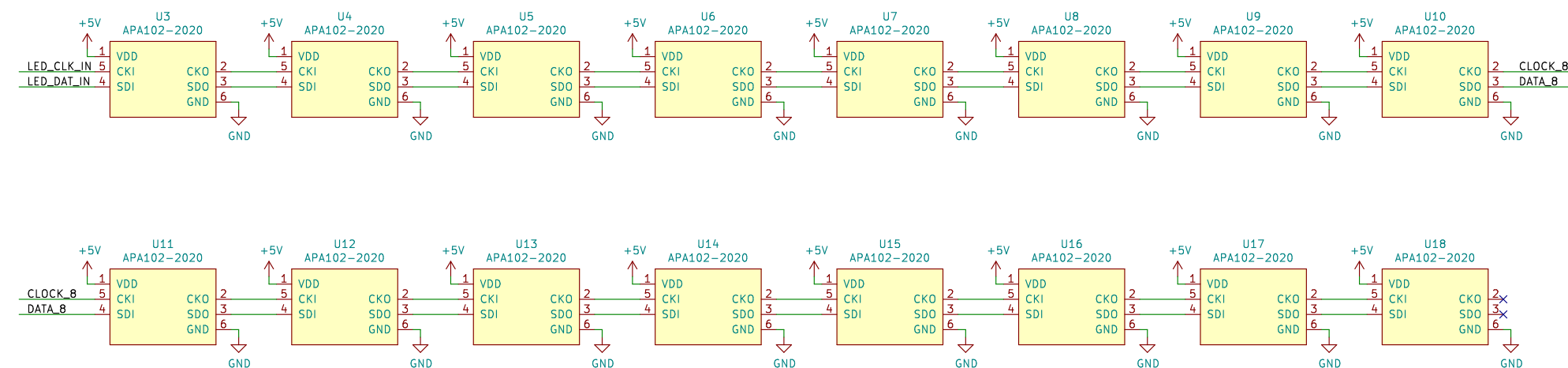


The schematic diagram illustrates the internal components of the sensor module. It features two primary integrated circuits: a MIC5366-3.3 voltage regulator (U19) and a LIS2DE12 digital accelerometer (U20).

Voltage Regulation (U19): The MIC5366-3.3 regulator is configured to provide a stable 3.3V output. Its VIN pin (pin 4) is connected to the +5V supply. The EN pin (pin 3) is connected to the +5V supply through a 24K9 resistor (R8). The VOUT pin (pin 1) is connected to the +3V3 supply and is bypassed to GND by a 1uF capacitor (C6). The GND pins (pins 2 and 5) are connected to the common ground.

Accelerometer (U20): The LIS2DE12 accelerometer is powered by the +3V3 supply. Its Vdd pin (pin 10) is connected to +3V3. The Vdd_IO pin (pin 9) is also connected to +3V3. The CS pin (pin 2) is connected to +3V3 through a 4K7 resistor (R4). The SDA/SDI pin (pin 4) is connected to the +3V3 supply through a 4K7 resistor (R5). The SAQ/SDO pin (pin 3) is connected to the SCL line, which is also connected to the SCL pin (pin 1) and the +3V3 supply through a 24K9 resistor (R6). The INT1 pin (pin 12) is connected to the +3V3 supply through a 24K9 resistor (R7). The INT2 pin (pin 11) is connected to the +3V3 supply through a 24K9 resistor (R9). The PCINT pin (pin 14) is connected to the +3V3 supply through a 100nF capacitor (C5). The RES pin (pin 5) is connected to GND. The GND pins (pins 6, 7, and 8) are connected to the common ground.

LED array



Rev: 1

Ed: 1/1