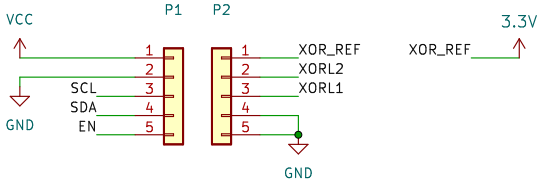
Inertial Measurement Unit (IMU) Stamp

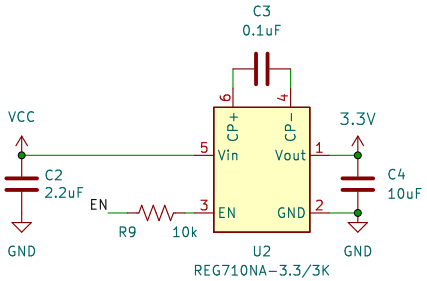
Vin: 1.8–5.5V
Imax: calculate

I/O

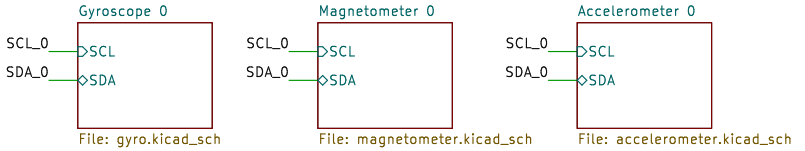
2 sides of castellated holes on the edge of board



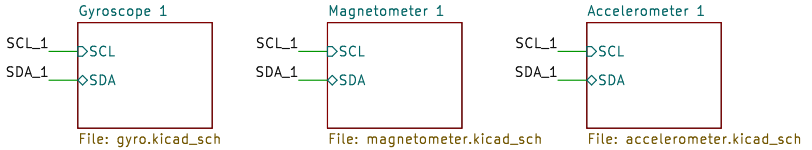
3.3V Regulator



BLOCK 0

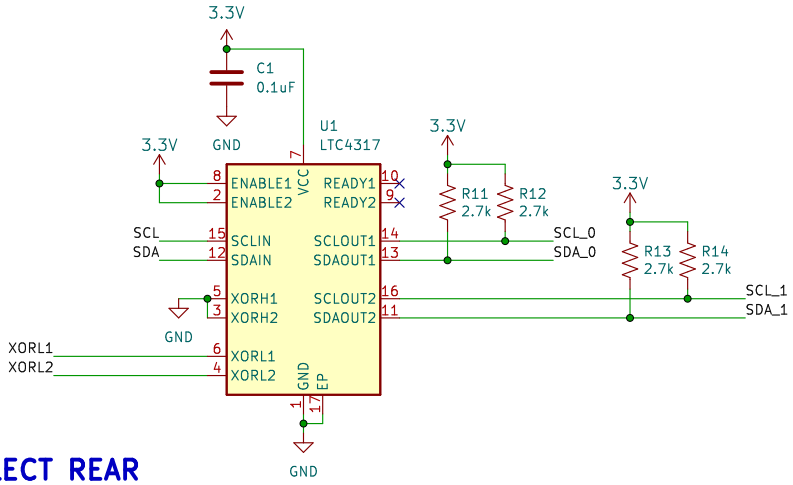


BLOCK 1



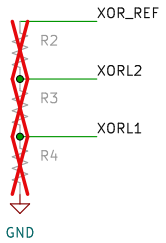
I2C TRANSLATOR

see LTC4317 datasheet for information on setting the addresses of these.



I2C ADDRESS SELECT REAR

For proto/breadboard use without a PCB to set address.



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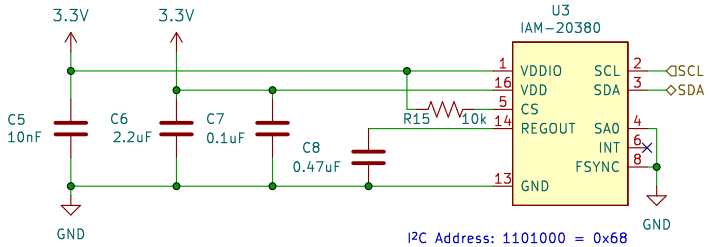


10.1 ORIENTATION OF AXES

Figure 13 shows the orientation of the axes of sensitivity and the polarity of rotation. Note the pin 1 identifier (•) in the figure.

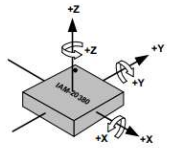
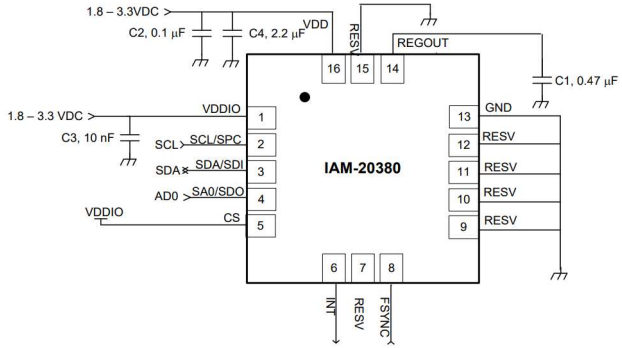


Figure 13. Orientation of Axes of Sensitivity and Polarity of Rotation

TYPICAL OPERATING CIRCUIT



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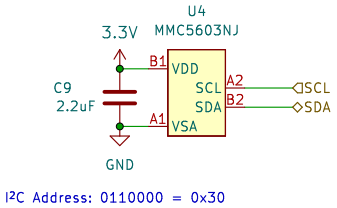
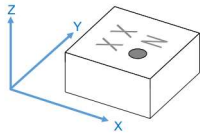


I²C Address: 0110000 = 0x30

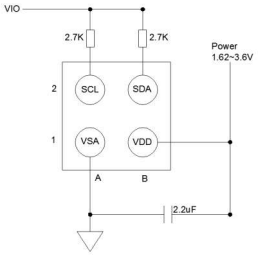
RELATIONSHIP BETWEEN THE MAGNETIC FIELD AND OUTPUT CODE

The measurement data increases as the magnetic flux density increases in the arrow directions.



EXTERNAL CIRCUITRY CONNECTION

The MMC5603NJ can operate from a single 1.62V to 3.6V supply. The circuit connection diagrams below illustrate power supply connection options.



<TOP VIEW>

Connection Block Diagram

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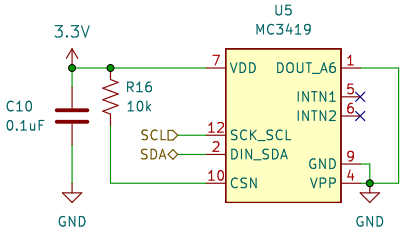
KiCad E.D.A. kicad 7.0.1		Id: 3/7



I²C Address: 1001100 = 0x4C

programmable interrupt:
set to open-drain

3.2 PACKAGE ORIENTATION

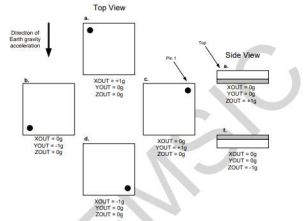


Figure 3. Package Orientation

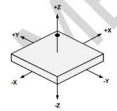
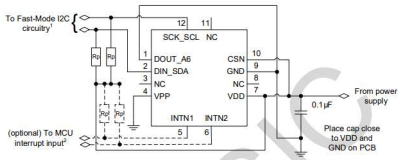


Figure 4. Package Axis Reference

3.4 TYPICAL APPLICATION CIRCUITS



NOTE[1]: Rp are typically 4.7kΩ pullup resistors to VDDIO, per I2C specification. When VDDIO is powered down, DIN_SDA and SCK_SCL will be driven low by internal ESD diodes.
NOTE[2]: Attach typical 4.7kΩ pullup resistor if INTN is defined as open-drain.

Figure 5. Typical I2C Application Circuit

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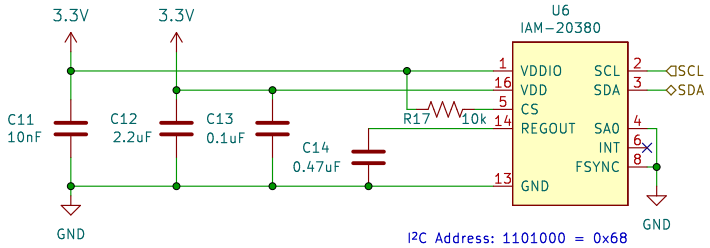
KiCad E.D.A. kicad 7.0.1		Id: 4/7



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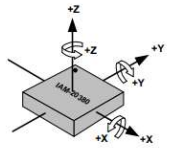
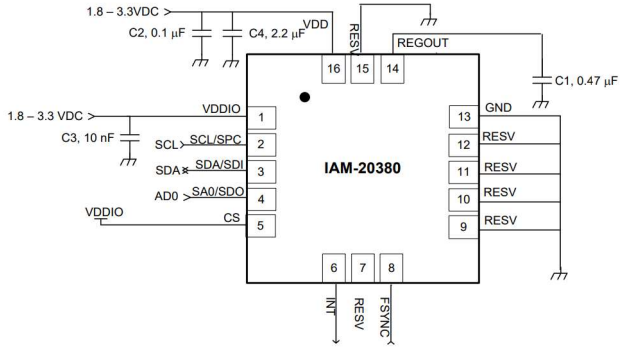


Figure 13. Orientation of Axes of Sensitivity and Polarity of Rotation

TYPICAL OPERATING CIRCUIT



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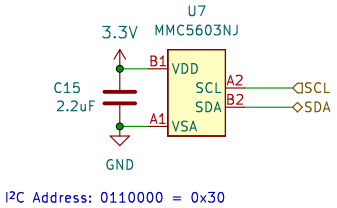

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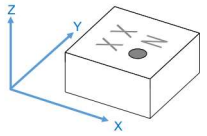

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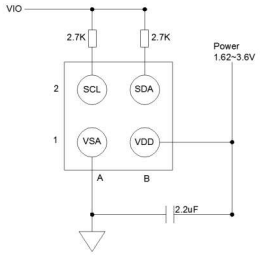

<TOP VIEW>

Connection Block Diagram

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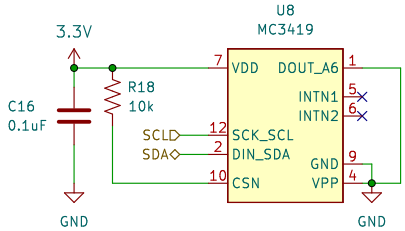
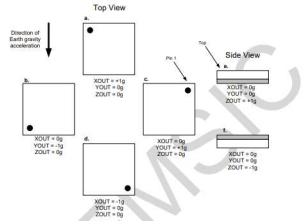
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.1		Id: 6/7



I²C Address: 1001100 = 0x4C

programmable interrupt:
set to open-drain

3.2 PACKAGE ORIENTATION



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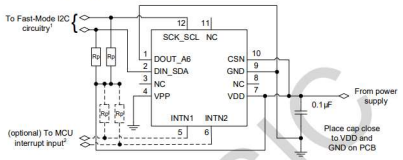

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