Accelerometer – ISM330DHCX
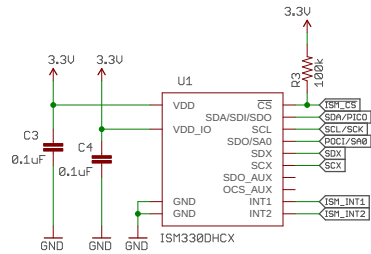
VDD Range: 1.71V – 3.6V
VDDIO Range: 1.62V – 3.6V

I2C Address (selectable): 0x6B (Default)

U1
VDD
VDD_IO
SDA/SDI/SDO
SCL
SDO/SA0
SDX
SCX
SDO_AUX
OCS_AUX
GND
GND

CS — ISM_CS
INT1 — ISM_INT1
INT2 — ISM_INT2
SDA/PICO
SCL/SCK
POCI/SA0
SDX
SCX

ISM330DHCX

C3 0.1uF
C4 0.1uF

R3 100k
3.3V

ISM330DHCX MODES
MODE1: Peripheral-only mode
        I2C or SPI
MODE2: Sensor Hub mode
        I2C or SPI with controller I2C port

Accelerometer Address Selection and Sensor Hub Jumpers

3.3V

R5 100k

POCI/SA0

R6 100k

GND

6DOF_ADDR	
VDD	0x6B (Default)
GND	0x6A
OPEN	4-Wire SPI
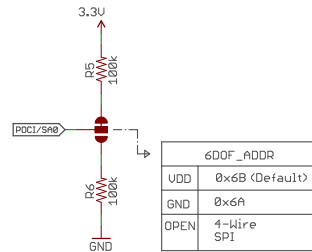
Magnetometer address unaffected,
no alternate address available.

SDX
GND

SCX
GND

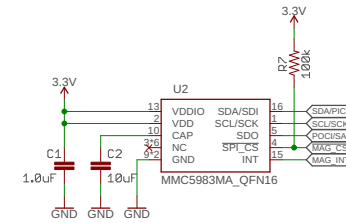If using Mode 2 (Sensor Hub Mode),
cut both traces.

Magnetometer – MMC5983MA

VDD Range: 2.8V – 3.6V
VDDIO Range: 2.8V – 3.6V

I2C address: 0x30
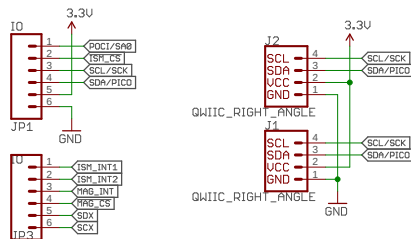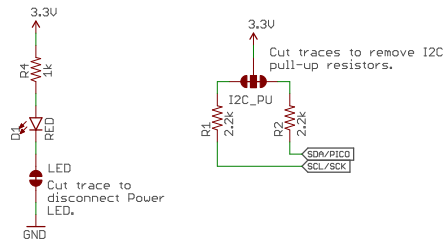
3.3V

R7 100k

U2
VDDIO
VDD
CAP
NC
GND

SDA/SDI — SDA/PICO
SCL/SCK — SCL/SCK
SDO — POCI/SA0
SPI_CS — MAG_CS
INT — MAG_INT

MMC5983MA_QFN16

C1 1.0uF
C2 10uF

GND GND GND

Connectors

3.3V

IO
POCI/SA0
ISM_CS
SCL/SCK
SDA/PICO

JP1

GND

J2
SCL
SDA
VCC
GND
3.3V
SCL/SCK
SDA/PICO

QWIIC_RIGHT_ANGLE

J1
SCL
SDA
VCC
GND
SCL/SCK
SDA/PICO

QWIIC_RIGHT_ANGLE

GND

IO
ISM_INT1
ISM_INT2
MAG_INT
MAG_CS
SDX
SCX

JP3

I2C and LED Jumpers

3.3V

R4 1k

D1 RED

LED
Cut trace to
disconnect Power
LED.

GND

3.3V

Cut traces to remove I2C
pull-up resistors.

I2C_PU

R1 2.2k
R2 2.2k

SDA/PICO
SCL/SCK

open hardware qwiic **sparkfun**

TITLE: SparkFun_9DoF_ISM330DHCX-MMC5983MA
Design by: Elias Santistevan
REV: v10
Date: 7/19/2022 2:45 PM
Sheet: 1/1