Qwiic Connector

QWIIC_RIGHT_ANGLE

J1

3.3V

SCL	4	SCL
SDA	3	SDA
VCC	2	
GND	1	

GND

Test Points

3.3V

SCL — SCL
SDA — SDA
3V3
GND
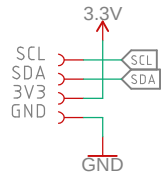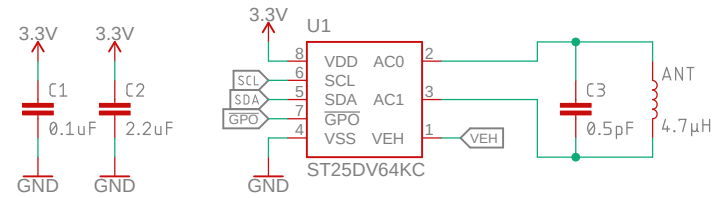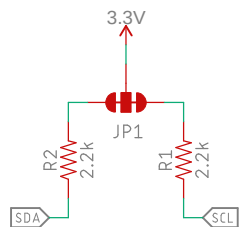
GND

ST25DV64KC

Notes on antenna tuning:

The ST25DV64KC has an internal tuning capacitance of 28.5pF
The W3102 antenna has an inductance of 4.7µH
To tune the antenna circuit to 13.56MHz, the total capacitance needs to be 29.1pF
C3 may need to be tuned for best performance

3.3V   3.3V   3.3V   U1

C1   C2

0.1uF   2.2uF

	U1		
8	VDD	AC0	2
6 SCL	SCL	AC1	3
5 SDA	SDA		
7 GPO	GPO		
4	VSS	VEH	1 VEH

ST25DV64KC

C3
0.5pF   4.7µH   ANT

GND   GND   GND

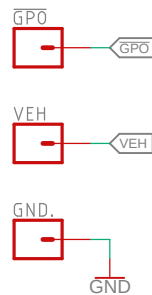Default I2C Address (User Memory) (Unshifted): 0x53
Default I2C Address (System Memory) (Unshifted): 0x57

I2C Pull-ups

Open jumper to disable
I2C pull-up resistors

3.3V

JP1

R2 2.2k   R1 2.2k

SDA   SCL

Breakouts

GPO — GPO

VEH — VEH

GND. — GND

open hardware

SPARK X

TITLE: SparkX_Micro_NFC_RFID_Tag

Design by: Paul Clark

REV: x01

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