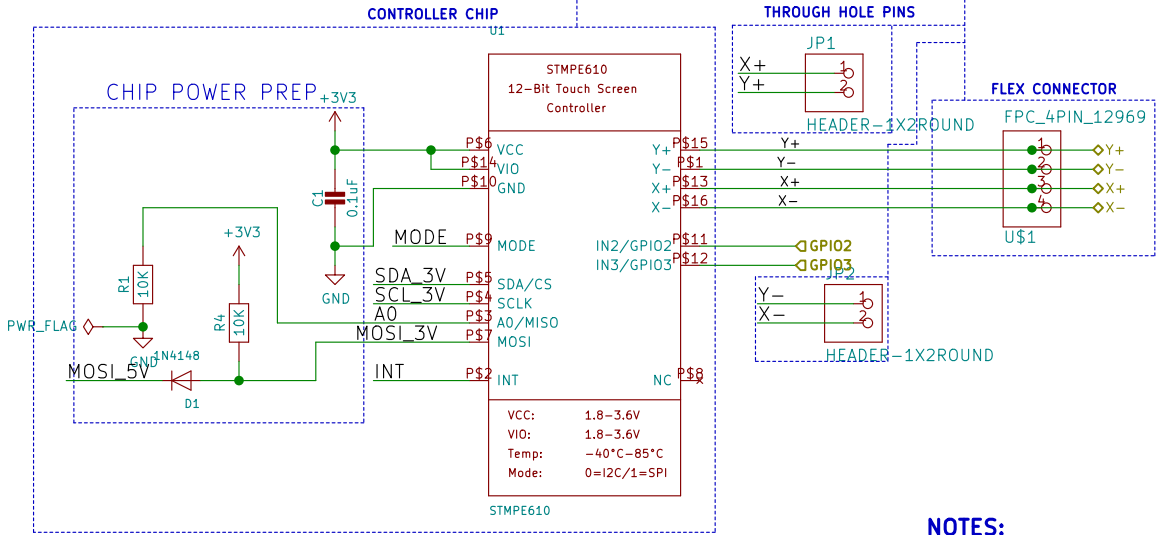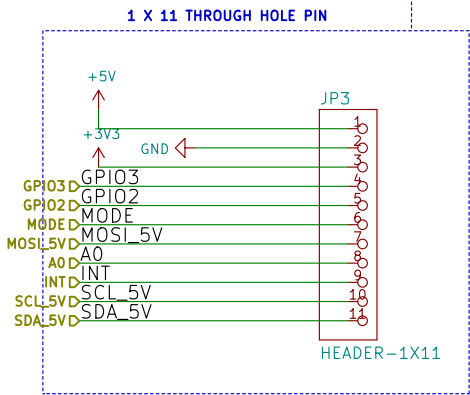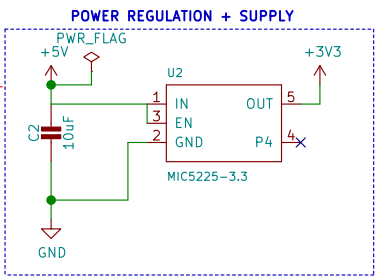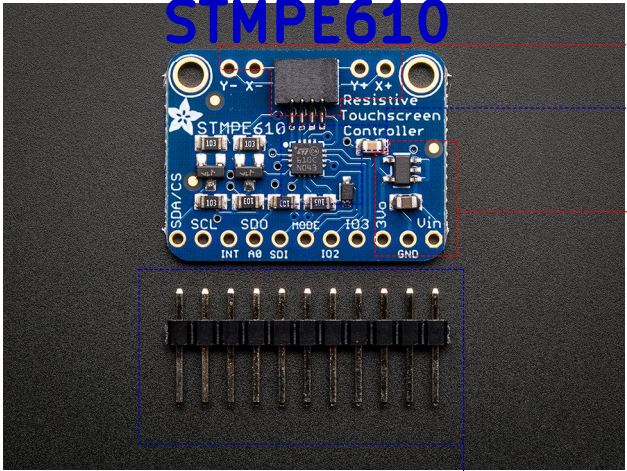LCD DISPLAY (U3) CONNECTS TO FFC CONNECTOR (NOT SHOWN). STMPE811 HAS TRACES ROUTED TO TOP-CONTACT PINS OF FFC CONNECTOR.

Sheet: STMPE811
GPIO2
GPIO3

MODE
MOSI_5V
A0
INT
SCL_5V
SDA_5V

X-
X+
Y-
Y+

File: STMPE811.sch

TODO:
1.CONNECT HIERARCHICAL PINS
BETWEEN 50-PIN CONNECTOR (THE SYMBOL ON THE RIGHT)
AND STMPE811 SHEET

U3
DISP_TFT_2.8IN_240x320_50PIN

Pin	Signal			Signal	Pin
6	IM0	BUS SEL	DATA BUS	DB00	32
7	IM1			DB01	31
8	IM2			DB02	30
9	IM3			DB03	29
				DB04	28
10	RESET	RST		DB05	27
				DB06	26
				DB07	25
44	XL_(+)	TOUCH		DB08	24
46	XR_(-)			DB09	23
45	YU_(+)			DB10	22
47	YD_(-)			DB11	21
				DB12	20
				DB13	19
				DB14	18
				DB15	17
1	LEDK	BACKLIGHT		DB16	16
2	LEDA1			DB17	15
3	LEDA2				
4	LEDA3		RGB	DE	14
5	LEDA4			DOTCLK	13
				HSYNC	12
				VSYNC	11
40	VDDI	POWER			
41	VDDI		SERIAL LOGIC	TE	39
42	VCI			CS	38
				D/CX(SCL)	37
43	GND			WRX(D/CX)	36
48	GND			RD	35
49	GND			SDI	34
50	GND			SDO	33

MI0283QT-11

2.8'' LCD TFT
DISPLAY
WITH
RESISTIVE
TOUCH
SCREEN

GND

+5V
GND

Sheet: /
File: display_board.sch

Title:

Size: A4   Date:
KiCad E.D.A. kicad (5.1.5)-3

Rev:
Id: 1/2

STMPE610

POWER REGULATION + SUPPLY

PWR_FLAG
+5V   +3V3
          U2
          1 IN   OUT 5
C2   3 EN
10uF   2 GND   P4   4
          MIC5225-3.3
GND

GND

CHIP POWER PREP
+3V3

CONTROLLER CHIP
U1
STMPE610
12-Bit Touch Screen
Controller

P$6 VCC
P$14 VIO
P$10 GND

MODE   P$9 MODE
SDA_3V P$5 SDA/CS
SCL_3V P$4 SCLK
A0   P$3 A0/MISO
MOSI_3V P$7 MOSI

INT   P$2 INT

Y+ P$15 Y+
Y- P$1   Y-
X+ P$13 X+
X- P$16 X-

IN2/GPIO2 P$11 GPIO2
IN3/GPIO3 P$12 GPIO3

NC P$8

VCC: 1.8-3.6V
VIO: 1.8-3.6V
Temp: -40°C-85°C
Mode: 0=I2C/1=SPI

STMPE610

R1 10K
R4 10K
PWR_FLAG
GND
MOSI_5V
D1 1N4148

C1 0.1uF
GND

THROUGH HOLE PINS
JP1
X+
Y+
HEADER-1X2ROUND

Y+
Y-
X+
X-

Y-
X-
HEADER-1X2ROUND

FLEX CONNECTOR
FPC_4PIN_12969
Y+
Y-
X+
X-
U$1

1 X 11 THROUGH HOLE PIN

+5V
+3V3   JP3
         GND
GPIO3D GPIO3
GPIO2D GPIO2
MODED   MODE
MOSI_5VD MOSI_5V
        A0
A0D
INTD   INT
SCL_5VD SCL_5V
SDA_5VD SDA_5V
HEADER-1X11

I2C PINS. SCL = SERIAL CLOCK. SDA = SERIAL DATA.

+3V3 +3V3   +5V
R2 10K   R5 10K
        Q1
        BSS138
SCL_3V   SCL_5V
SDA_3V   SDA_5V
        +3V3
R3 10K   R6 10K
        BSS138
+3V3   +5V

CR1
STMPE811
Y-   1   Y-   17 17   X-
INT   2   INT   16 16   X-
A0-MISO 3 A0/DATA_OUT 15 15   Y+
SCLK 4   SCLK   14 14   VIO
+3V3 SDA_3V 5 SDAT   13 13   X+
MOSI 7   VCC   12 12   GPIO3
GPIO0 8 DATA_IN   11 11   GPIO2
          IN0   10 10   GND GPIO1
          IN3
          IN2
          GND
          IN1   9   GPIO1 GND

NOTES:
1.SWITCH CONTROLLER CHIP FROM STMPE610 TO STMPE811
2.POWER PINS MUST BE DIFFERENTIAED
BETWEEN LOCAL SCOPE AND HIERARCHICAL SCOPE(?)

KEEP BLOCKS: I2C PINS, POWER REGULATION + SUPPLY,
CHIP POWER PREP

TODO:
CONFIRM SURROUNDING CIRCUITRY FITS THE NEEDS OF
STMPE811.
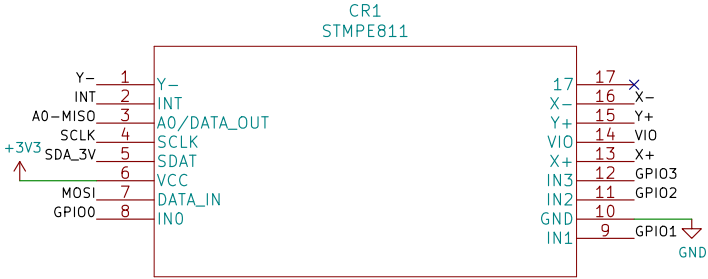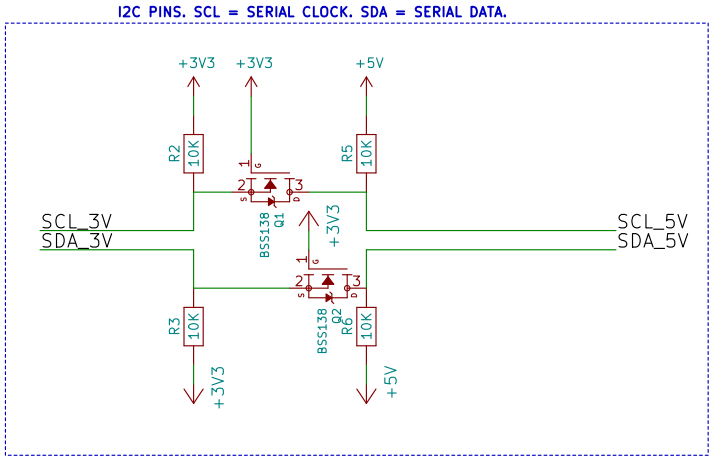
adafruit

>DRAWING_NAME
>LAST_DATE_TIME   Sheet: >SHEET
Drawing: >AUTHOR   Adafruit Industries

Sheet: /STMPE811/
File: STMPE811.sch
Title:
Size: A3   Date: Rev:
KiCad E.D.A. kicad (5.1.5)-3   Id: 2/2