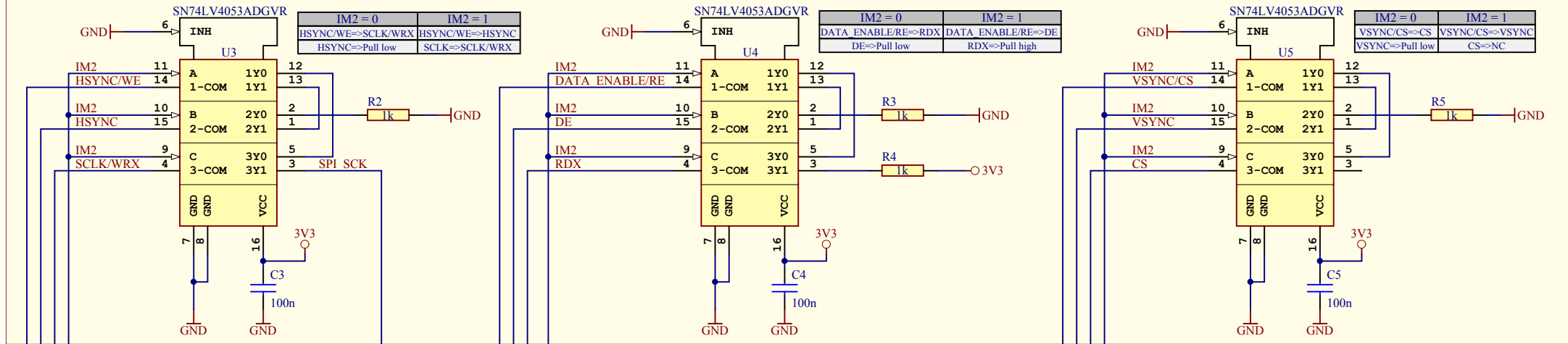
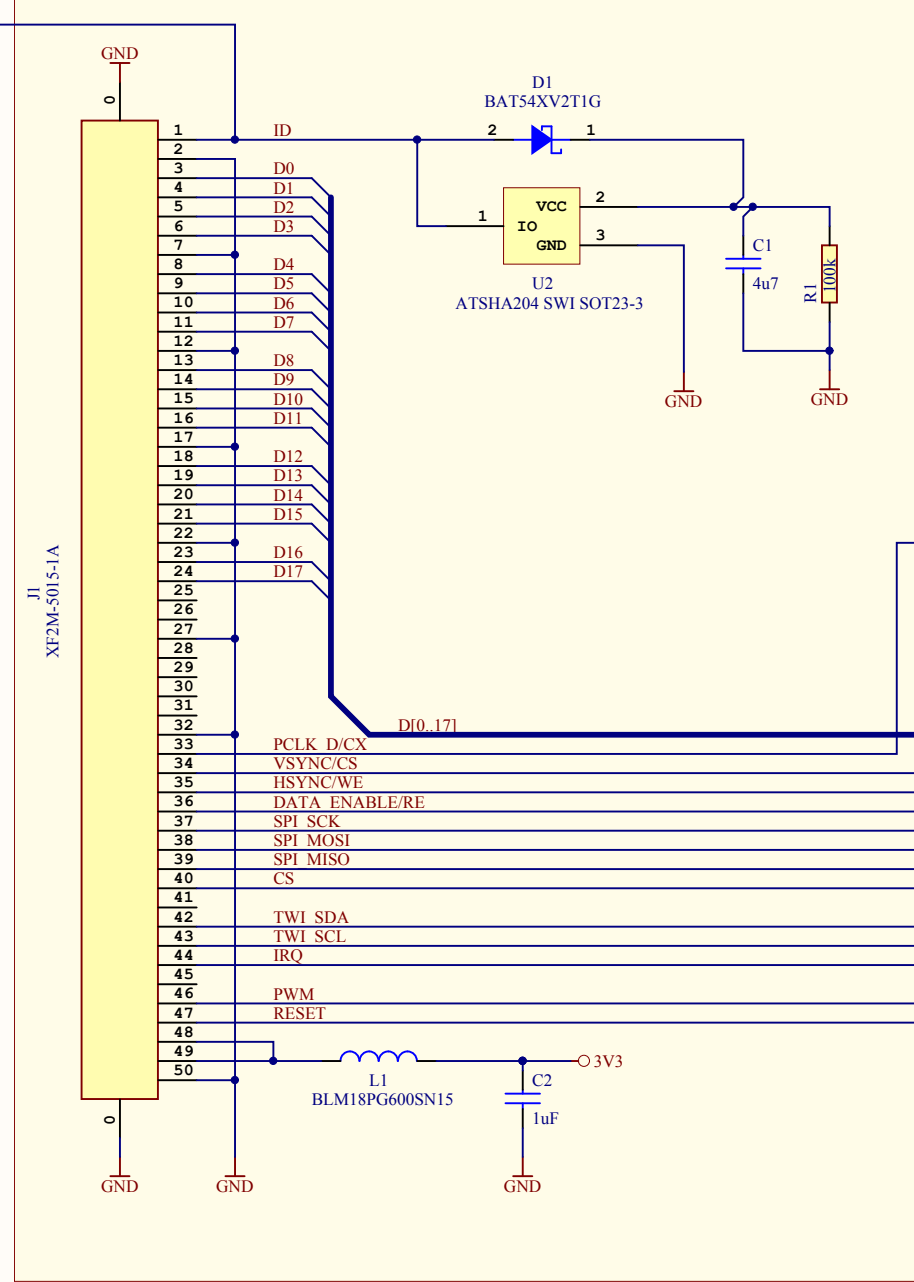


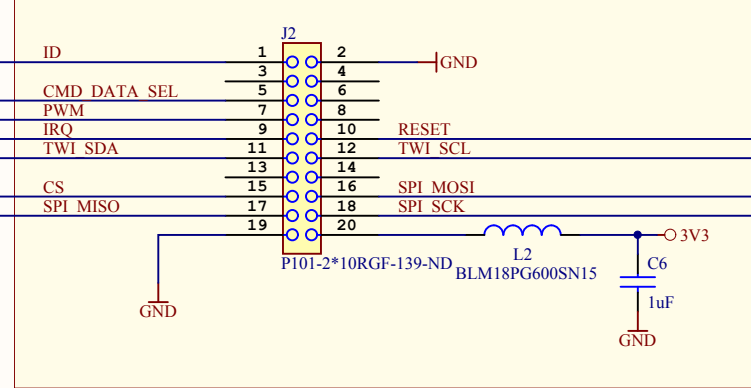
Xplained Pro LCD Extension header (50-pin FPC)

Interface Selection Multiplexer

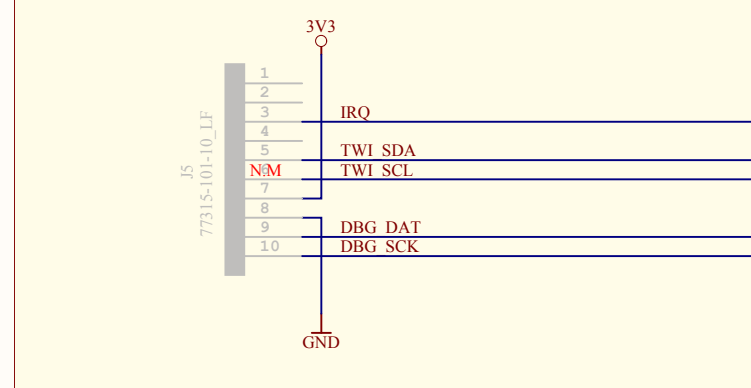


IM2	IM1	IM0	Interface	Pins in use
0	0	0	18-bit bus	DB[17:0], CS, D/C, WRX, RDX
0	0	1	9-bit bus	DB[8:0], CS, D/C, WRX, RDX
0	1	0	16-bit bus	DB[15:0], CS, D/C, WRX, RDX
0	1	1	8-bit bus	DB[7:0], CS, D/C, WRX, RDX
1	0	0	RGB mode	DB[17:0], HSYNC, VSYNC, PCLK, DE, 3-wire SPI
1	0	1	3-wire SPI	MOSI, MISO, SCLK, CS
1	1	1	4-wire SPI	MOSI, MISO, SCLK, CS, D/C

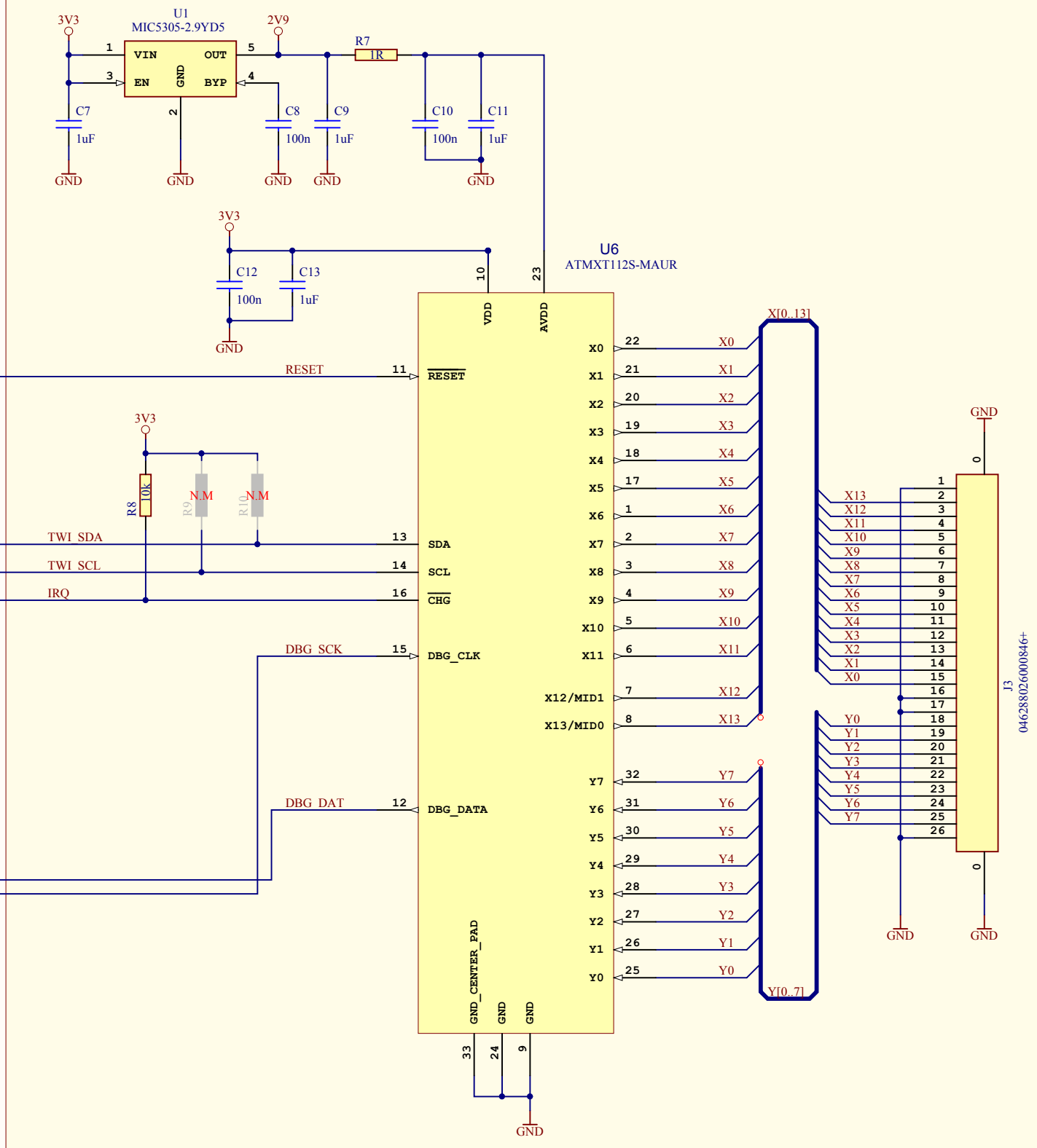
Xplained Pro Extension header



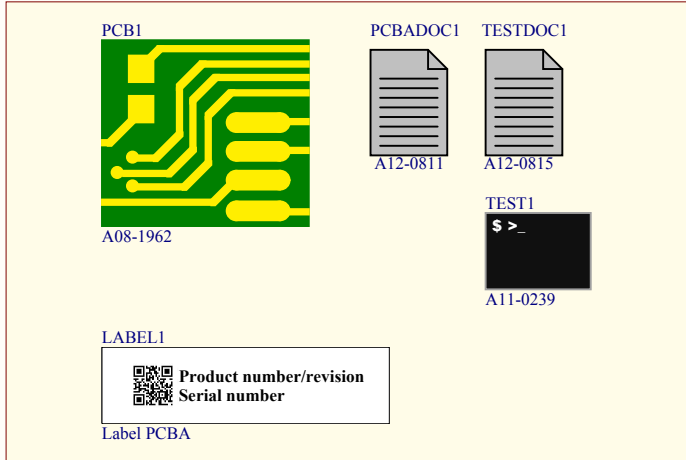
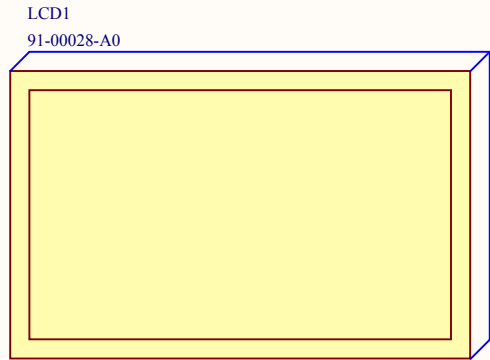
maXTouch Debug Connector




maXTouch Interface



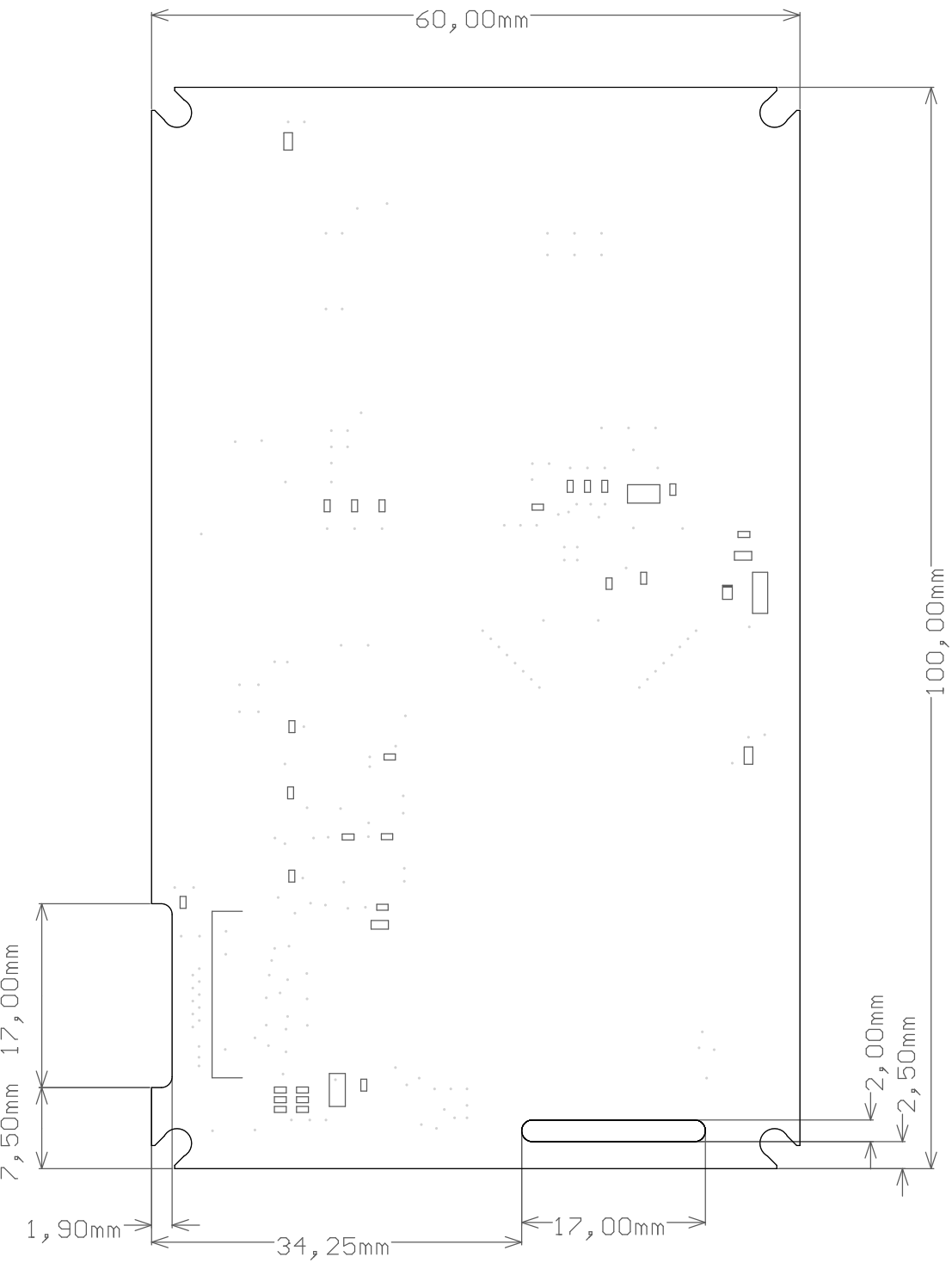
The current in each backlight LED is approximately 7mA, giving a total current of 42mA for the backlight in the ON state.

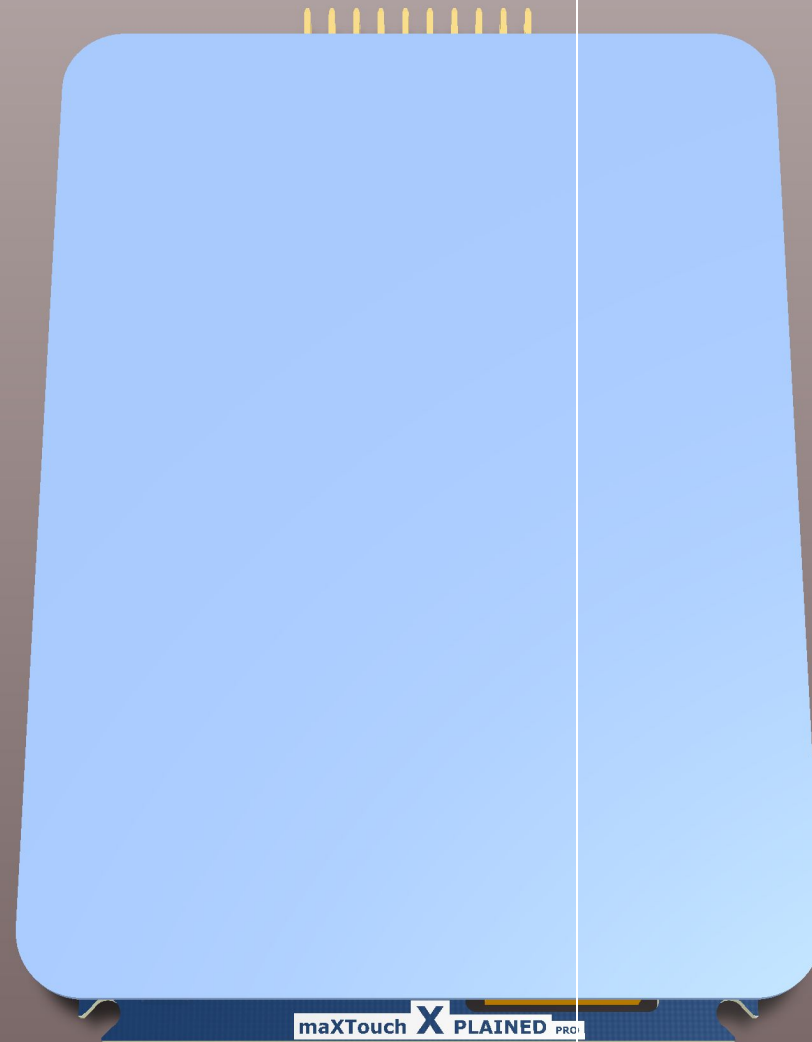


ATMEL Norway		*	 Enabling Unlimited Possibilities		
Vestre Rosten 79		*			
N-7075 TILLER		*			
NORWAY					
Date:	28.09.2015	10:53:15	PAGE:	1 of 1	
Document number: A09-2171			Revision:	2	
TITLE: maXTouch Xplained Pro					
maXTouch_Xplained_Pro.SCHDOC					



Mechanical Dimensions





Atmel

maXTouch **X** PLAINED PRO

XPRO
EXTENSION
HEADER

1	2															19	20
GND	NC	NC	NC	NC	RST	SCL	NC	MOSI	SCK	VCC							
ID	NC	DCX	PWM	IRQ	SDA	NC	CS	MISO	GND								

IM2	IM1	IM0	MODE
0	0	0	18-BIT MCU
0	0	1	9-BIT MCU
0	1	0	16-BIT MCU
0	1	1	8-BIT MCU
1	0	1	3W SPI/RGB
1	1	1	4W SPI

1
10
DEBUG CONNECTOR

PCBA LABEL
A08-1962 Rev 2

ITO CONNECTOR

1 26

XPRO LCD CONNECTOR

1 50

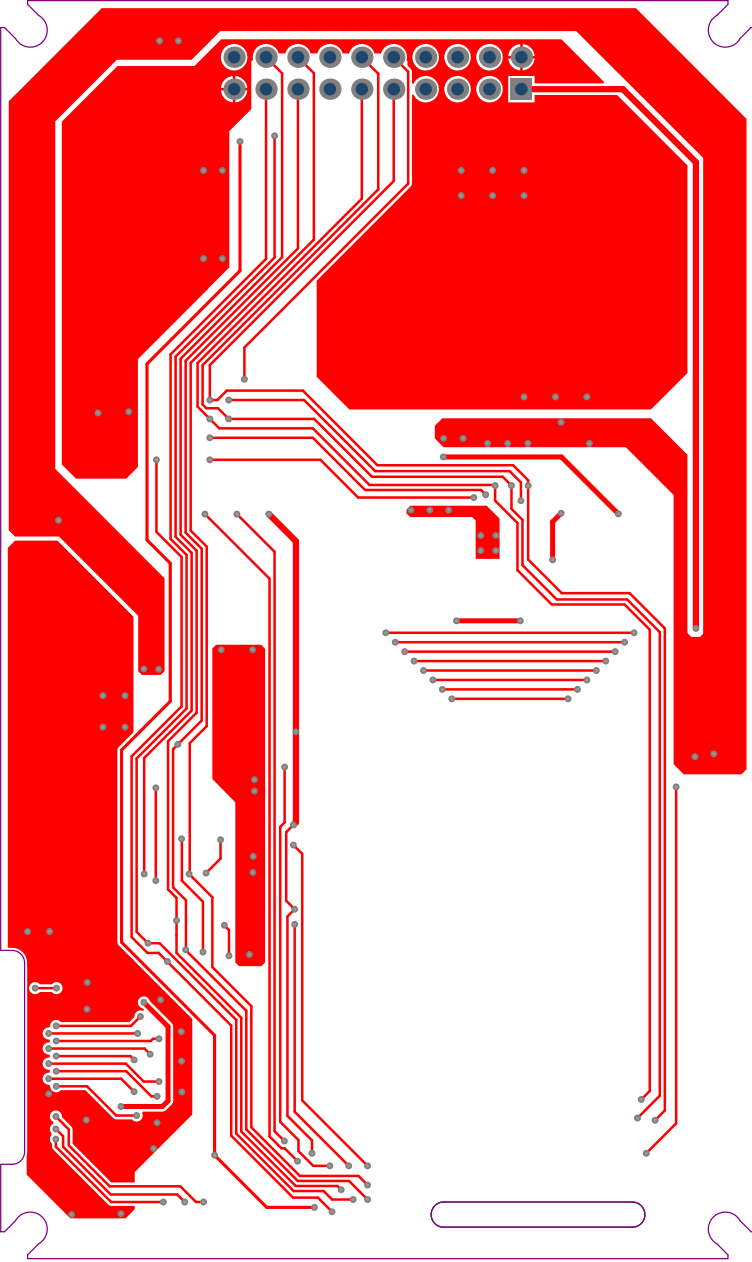
ON
OFF
1 2 3

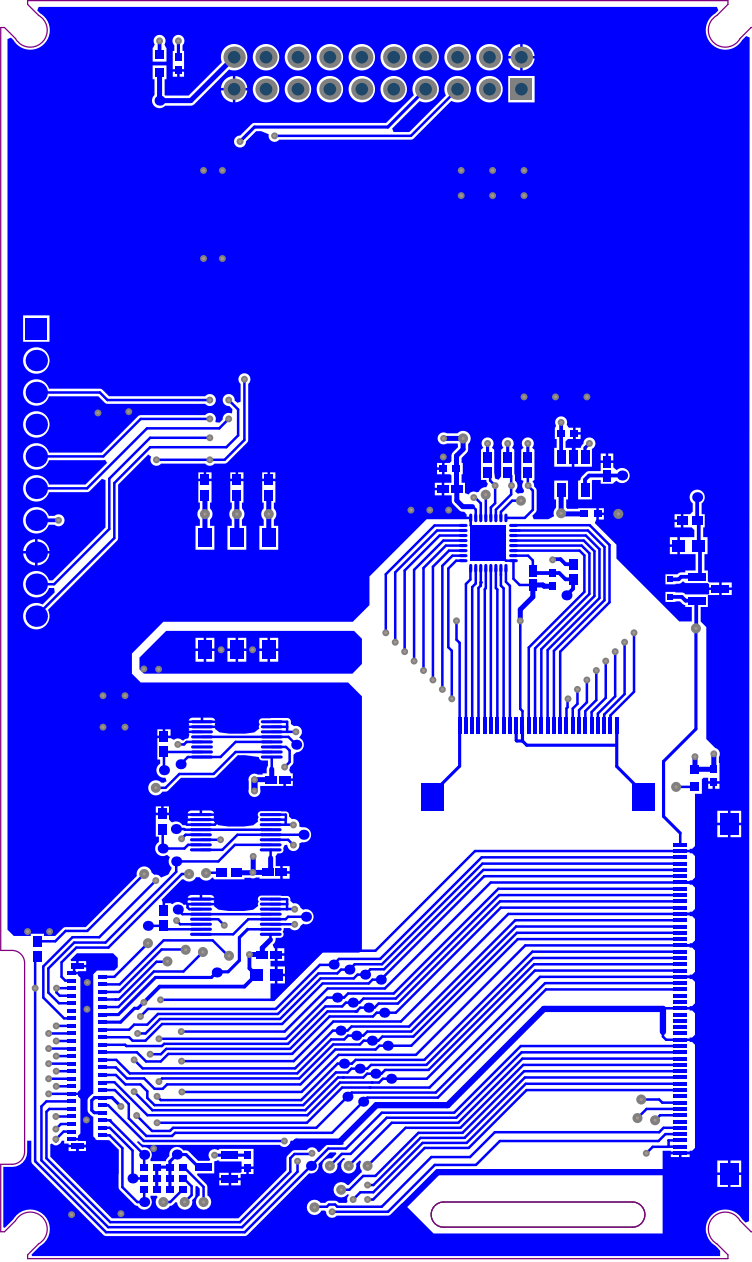
IM2 IM1 IM0



DISPLAY CONNECTOR

44 45
2 1





DOUBLESIDED TAPE

LCD1

Atmel

maXTouch X PLAINED PRO

XPRO
EXTENSION
HEADER

2
1

GND NC NC NC RST SCL NC MOSI SCK VCC

ID NC DCX PWM IRQ SDA NC CS MISO GND

20
19

LC6 L2

J2

+

ITO CONNECTOR

1

J3

26

XPRO LCD CONNECTOR

1

50

J1

LC2

LI1

RI

GI

DI

U2

LC7

U1

R8

LC3

C12

LC9

R7

C11

C10

U6

IM2	IM1	IMO	MODE
0	0	0	18-BIT MCU
0	0	1	9-BIT MCU
0	1	0	16-BIT MCU
0	1	1	8-BIT MCU
1	0	1	3W SPI/RGB
1	1	1	4W SPI

RI1

RI2

RI3

SW1

ON

OFF

IM2

IM1

IMO

U5

C5

U4

C4

R4

U3

C3

C17

RI7

U1

RI18

RI19

RI20

RI21

RI22

RI23

DEBUG CONNECTOR

10

PCBA LABEL
LABEL1

A08-1962 Rev 2

DISPLAY CONNECTOR

44

45

46

J4

+

2

1

Component list

Bill of Materials Fitted For Variant [maXTouch_Xplained_Pro] of Project [maXTouch_Xplained_Pro.PRJPCB] (No PCB Document Selected)

Source Data From:

maXTouch_Xplained_Pro.PRJPCB

Project:

maXTouch_Xplained_Pro.PRJPCB

Variant:

maXTouch_Xplained_Pro

Report Date: 28.09.2015 10:53:30

Print Date: 28.09.2015 10:52:43



Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C1, C17	2	4u7			Ceramic capacitor, SMD 0603, 10V, ±10%
Fitted	C2, C6, C7, C9, C11, C13	6	1uF	AVX	0402ZD105KAT2A	Ceramic capacitor, SMD 0402, X5R, 10V, ±10 %
Fitted	C3, C4, C5, C8, C10, C12	6	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	D1	1	BAT54XV2T1G	ON Semiconductor	BAT54XV2T1G	Schottky diode, If:200mA, Vf:0.35V, Vrrm:30V, SOD-523
Fitted	J1	1	XF2M-5015-1A	Omron Components	XF2M-5015-1A	50pin FPC connector, 0.5mm pitch, Top/Bottom contacts
Fitted	J2	1	P101-2*10RGF-139-ND	Pro-data International Corp	P101-2*10RGF-139-ND	Pin header, 2x10, Right Angle, 2.54mm, THM, Pin In Paste
Fitted	J3	1	046288026000846+			26pin ZIF right angle 0.5mm pitch
Fitted	J4	1	1-2013496-8	TE Connectivity	1-2013496-8	45 pin, bottom side, FPC connector, 0.3mm pitch
Fitted	L1, L2	2	BLM18PG600SN15			SMD EF inductor 0603. Z=60ohm(@100MHz),Max R(dc)=0.10ohm,Max current=500mA
Fitted	LABEL1	1	Label PCBA	ACT Logimark AS	505462	PCBA identification label PP Top White Gloss
Fitted	LCD1	1	91-00028-A0	Precision Design Associates (PDA)	91-00028-A0	3.5in HGVA TFT LCD
Fitted	PCB1	1	maXTouch Xplained Pro PCB			maXTouch Xplained Pro PCB
Fitted	PCBADOC1	1	A09-2171 PCBA Files			maXTouch Xplained Pro PCBA Documentation
Fitted	R1	1	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R17	1	100k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R18, R19, R20, R21, R22, R23	6	56R			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R2, R3, R4, R5, R6	5	1k			Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R7	1	1R			SMD 0402, 1/16W, 1%
Fitted	R8, R11, R12, R13	4	10k	vishay	CRCW040210K0FKED	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	SW1	1	sbs1003	Knitter-Sw itch	sbs1003	DIL Sw itch, 3-poles, 2.54mm
Fitted	TEST1	1	maXTouch Xplained pro Fixture Test SW			maXTouch Xplained pro Fixture Test SW
Fitted	TESTDOC1	1	maXTouch Xplained Pro test instruction			maXTouch Xplained Pro test instruction
Fitted	U1	1		MICREL SEMICONDUCTOR	MIC5305-2.9YD5	150mA uCap Ultra-low dropout LDO Regulator
Fitted	U2	1	ATSHA204 SWI SOT23-3	ATMEL	ATSHA204-TSU-T	ATSHA204 with 1-wire interface and SOT23-3 package
Fitted	U3, U4, U5	3	SN74LV4053ADGVR	Texas Instruments	SN74LV4053ADGVR	Triple 2-channel analog multiplexers/demultiplexers
Fitted	U6	1	ATMXT112S-MAUR	ATMEL	ATMXT112S-MAUR	QFN32 ATMXT112S-MAU 112-channel touchscreen controller
Fitted	V1	1	BSS138	Fairchild	BSS138	N-Channel MOSFET. 50V, 0.22A continuous, 0.88A Peak. RDS(ON) = 3.5Ohm@VGS=10V, VGS(th)<1.5V
Not Fitted	J5	0	77315-101-10_LF	FCI	77315-101-10_LF	1x10 Pin Header, 2.54mm pitch, right angle. THM
Not Fitted	R9, R10	0	2k15			SMD 0402, 1/16W, 1%

53

Approved

Notes