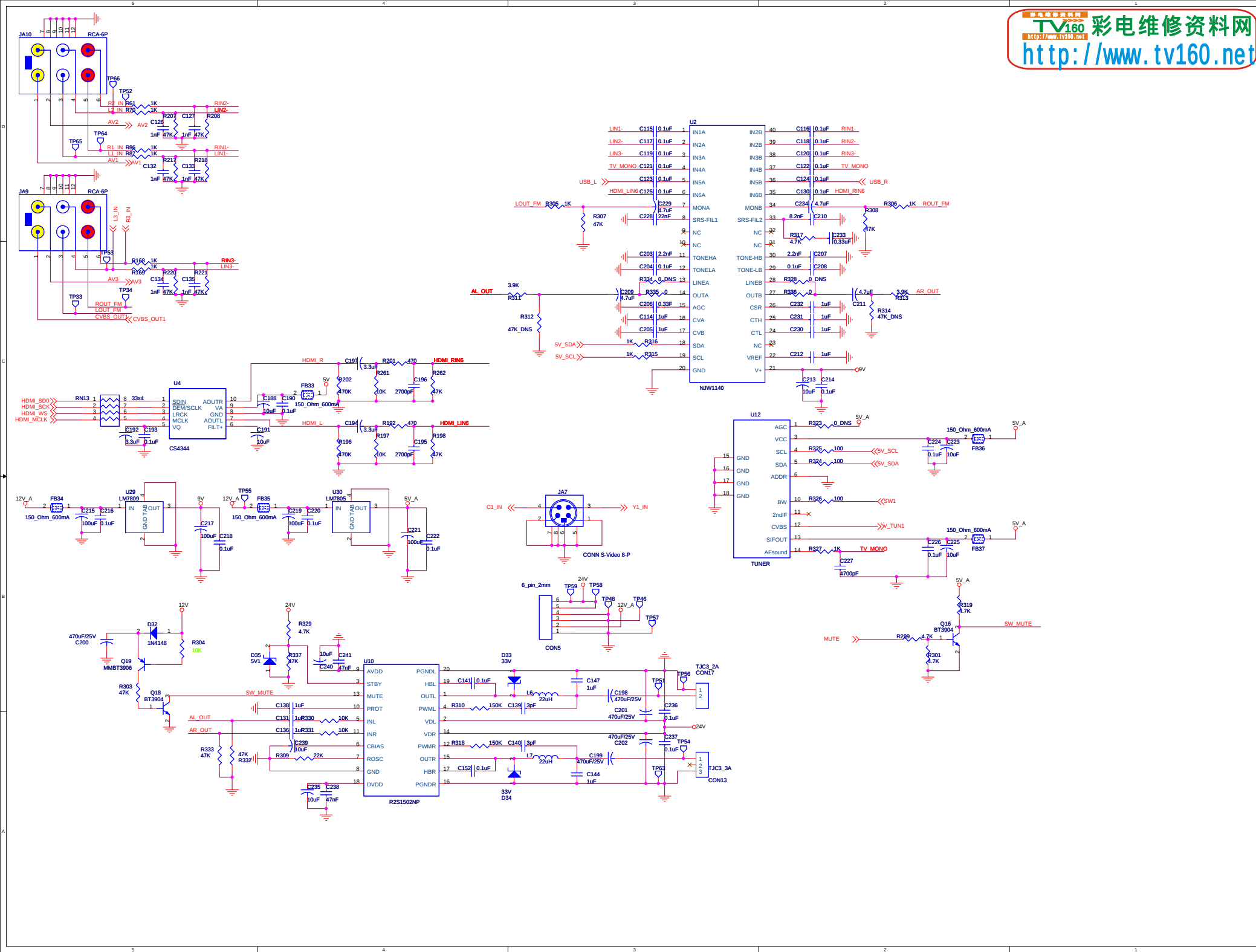




1			2			3			4			5											
REVISION HISTORY OF LCD-932 REFERENCE BOARD																							
A	REV	DATE	DESCRIPTION																				
		06.10.27	1,modify the LVDS connector pin order 2,mirror RN19~RN24 3,del C159																				
		06.11.1	1,adjust RN20,RN22 pin order: G5/G6,B5/B4 net 2, add capacitors C301 in MVREF net colse to SVP IC																				
		06.11.08	1,del con42,r201,r202 2,add mark m1-m14 3,move network moudle to tv board 4,change socket name to JA1-JA7																				
		06.11.14	1,del jp2,add r205;chang ecap decal to ecap5,6,10-22uf-470uf 2,change con_sip to my decal																				
		06.11.15	1,change tv_board interface																				
		06.11.16	1,del jp1&add r201 r202 2,change power_on logic;add r150,r206,q12																				
		06.11.17	1,add con12,con19 2,change 1501 to 1513																				
		06.11.20	1,change r160,r161,r162,r168,r169,r170(22k)to 39k,connect from 3v3 to 5v 2,change con19 pin1 and con19 pin2																				
		06.11.21	1,add r55(0_dns) 2,change c27,r21 net from PX_VDDMQ TO SVP_VDDMQ																				
		06.11.23	1,change r224,r225 from net 3.3v_sb to 5v_sb;add r263,c149																				
		06.11.24	1,change con14 to tjc3_4a;add r269,r270,r271,r272																				
		06.11.27	1,del r86,r87 2,change r215,r216 to 5v_scl,5v_sda;change con14 footprint 3,del ja3 pin11,pin4																				
		06.11.28	1,del ja6 pin4 pin5'net gnd;del mh1-mh4 pin7'gnd 2,add r273 to con15_pin2 and pwm0.																				
			NO DAVENCI																				
		06.12.01	1,del con8,con11,con7																				
		06.12.09	1,change r72//r71 1,del r229,c148,k2																				
		06.12.11	1,del r217,r218,r220,u16,c146																				
		06.12.12	1,change usb to usb_dual;add con20 2,del u12;add ja6(y/c socket)																				
		06.12.13	1,del u10;change svp hdtv1 chanel. 2,del r8																				
		06.12.19	1,MCU(add fb29,fb30,fb31,c146,c148,c159,change c104,c105,c106 to 10uf) 2,change eeprom u7 to real_time fram																				
		06.12.21	1,change eeprom epage,add flash fb32 2,del c164,add u28																				
		06.12.26	1,change 3906 pin2_c to pin2_e.(in pcb Q3 changed,q13,q14 remain)																				

5

4

3

2

1

REVISION HISTORY OF LCD-932 REFERENCE BOARD

REV	DATE	DESCRIPTION
A	06.10.27	1,modify the LVDS connector pin order 2,mirror RN19~RN24 3,del C159
	06.11.1	1,adjust RN20,RN22 pin order: G5/G6,B5/B4 net 2, add capacitors C301 in MVREF net colse to SVP IC
	06.11.08	1,del con42,r201,r202 2,add mark m1-m14 3,move network moudle to tv board 4,change socket name to JA1-JA7
	06.11.14	1,del jp2,add r205;chang ecap decal to ecap5,6,10-22uf-470uf 2,change con_sip to my decal
	06.11.15	1,change tv_board interface
	06.11.16	1,del jp1&add r201 r202 2,change power_on logic;add r150,r206,q12
	06.11.17	1,add con12,con19 2,change 1501 to 1513
	06.11.20	1,change r160,r161,r162,r168,r169,r170(22k)to 39k,connect from 3v3 to 5v 2,change con19 pin1 and con19 pin2
	06.11.21	1,add r55(0_dns) 2,change c27,r21 net from PX_VDDMQ TO SVP_VDDMQ
	06.11.23	1,change r224,r225 from net 3.3v_sb to 5v_sb;add r263,c149
	06.11.24	1,change con14 to tjc3_4a;add r269,r270,r271,r272
	06.11.27	1,del r86,r87 2,change r215,r216 to 5v_scl,5v_sda;change con14 footprint 3,del ja3 pin11,pin4
	06.11.28	1,del ja6 pin4 pin5'net gnd;del mh1-mh4 pin7'gnd 2,add r273 to con15_pin2 and pwm0.
	NO DAVENCI	
	06.12.01	1,del con8,con11,con7
	06.12.09	1,change r72//r71 1,del r229,c148,k2
	06.12.11	1,del r217,r218,r220,u16,c146
	06.12.12	1,change usb to usb_dual;add con20 2,del u12;add ja6(y/c socket)
	06.12.13	1,del u10;change svp hdtv1 chanel. 2,del r8
	06.12.19	1,MCU(add fb29,fb30,fb31,c146,c148,c159,change c104,c105,c106 to 10uf) 2,change eeprom u7 to real_time fram
	06.12.21	1,change eeprom epage,add flash fb32 2,del c164,add u28
	06.12.26	1,change 3906 pin2_c to pin2_e.(in pcb Q3 changed,q13,q14 remain)
	THE SECOND PCB	

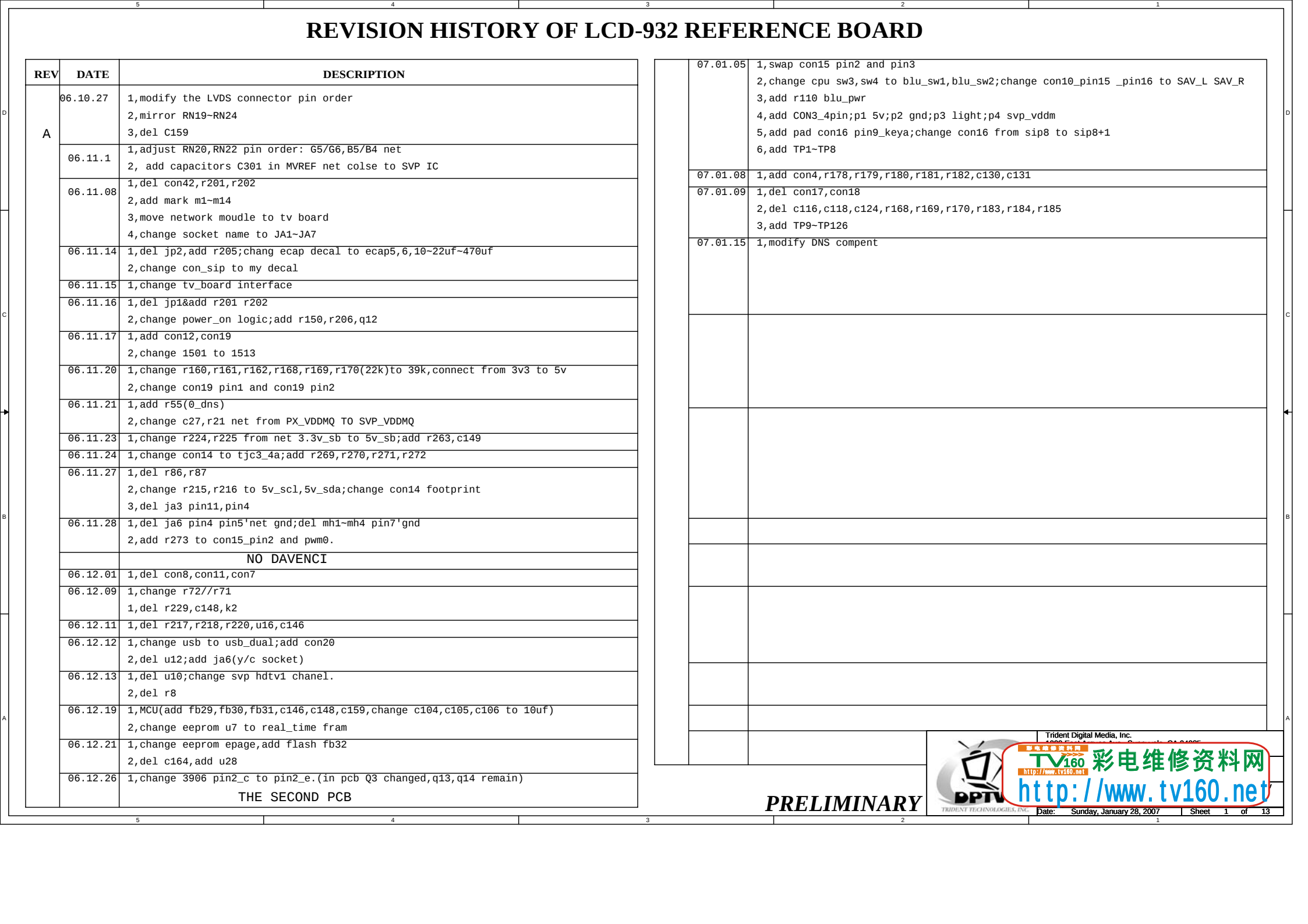
07.01.05	1,swap con15 pin2 and pin3 2,change cpu sw3,sw4 to blu_sw1,blu_sw2;change con10_pin15 _pin16 to SAV_L SAV_R 3,add r110 blu_pwr 4,add CON3_4pin;p1 5v;p2 gnd;p3 light;p4 svp_vddm 5,add pad con16 pin9_keya;change con16 from sip8 to sip8+1 6,add TP1-TP8
07.01.08	1,add con4,r178,r179,r180,r181,r182,c130,c131
07.01.09	1,del con17,con18 2,del c116,c118,c124,r168,r169,r170,r183,r184,r185 3,add TP9-TP126
07.01.15	1,modify DNS compent

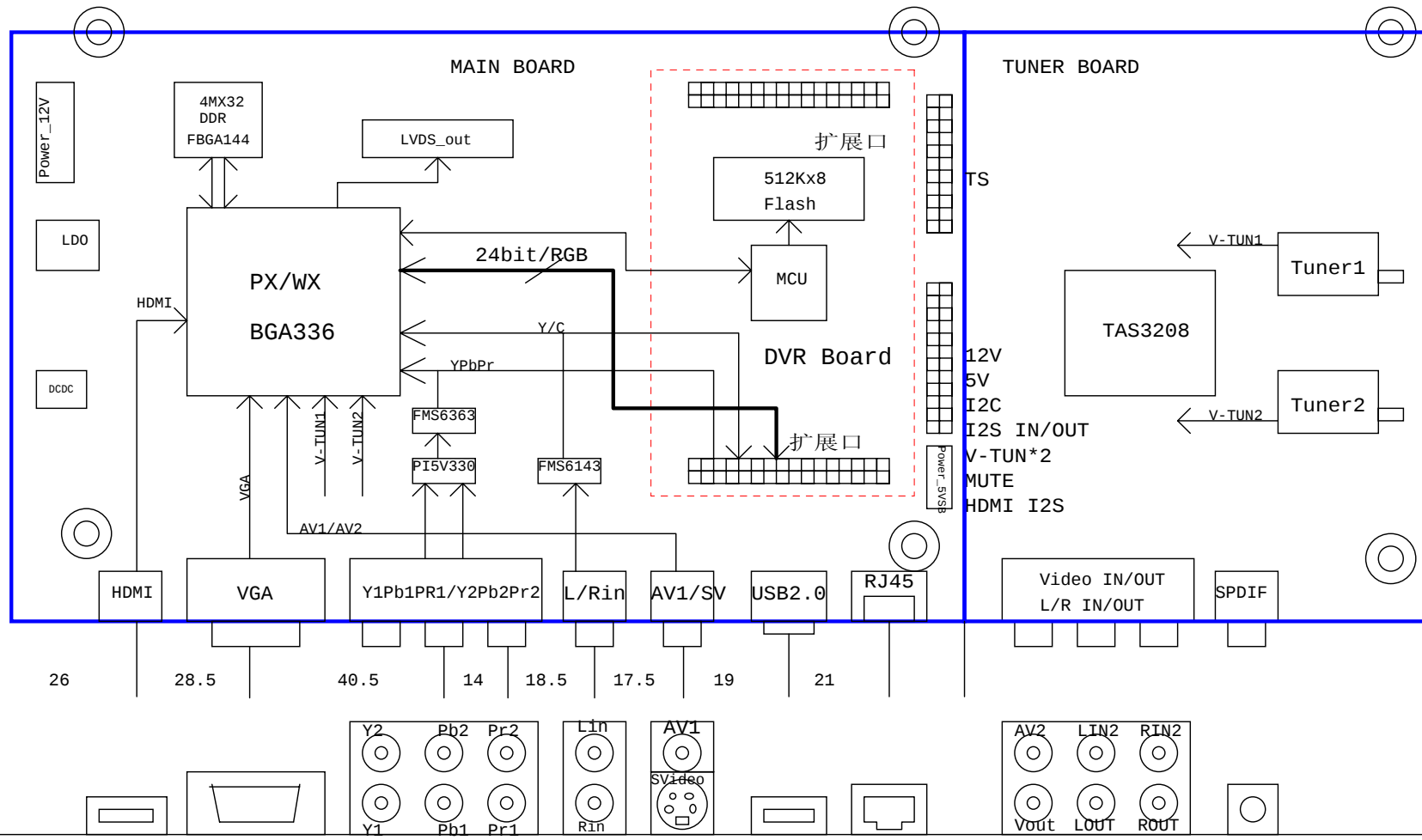
REVISION HISTORY OF LCD-932 REFERENCE BOARD

REV	DATE	DESCRIPTION
A	06.10.27	1,modify the LVDS connector pin order 2,mirror RN19~RN24 3,del C159
	06.11.1	1,adjust RN20,RN22 pin order: G5/G6,B5/B4 net 2, add capacitors C301 in MVREF net colse to SVP IC
	06.11.08	1,del con42,r201,r202 2,add mark m1-m14 3,move network moudle to tv board 4,change socket name to JA1-JA7
	06.11.14	1,del jp2,add r205;chang ecap decal to ecap5,6,10-22uf-470uf 2,change con_sip to my decal
	06.11.15	1,change tv_board interface
	06.11.16	1,del jp1&add r201 r202 2,change power_on logic;add r150,r206,q12
	06.11.17	1,add con12,con19 2,change 1501 to 1513
	06.11.20	1,change r160,r161,r162,r168,r169,r170(22k)to 39k,connect from 3v3 to 5v 2,change con19 pin1 and con19 pin2
	06.11.21	1,add r55(0_dns) 2,change c27,r21 net from PX_VDDMQ TO SVP_VDDMQ
	06.11.23	1,change r224,r225 from net 3.3v_sb to 5v_sb;add r263,c149
	06.11.24	1,change con14 to tjc3_4a;add r269,r270,r271,r272
	06.11.27	1,del r86,r87 2,change r215,r216 to 5v_scl,5v_sda;change con14 footprint 3,del ja3 pin11,pin4
	06.11.28	1,del ja6 pin4 pin5'net gnd;del mh1-mh4 pin7'gnd 2,add r273 to con15_pin2 and pwm0.
		NO DAVENCI
	06.12.01	1,del con8,con11,con7
	06.12.09	1,change r72//r71 1,del r229,c148,k2
	06.12.11	1,del r217,r218,r220,u16,c146
	06.12.12	1,change usb to usb_dual;add con20 2,del u12;add ja6(y/c socket)
	06.12.13	1,del u10;change svp hdtv1 chanel. 2,del r8
	06.12.19	1,MCU(add fb29,fb30,fb31,c146,c148,c159,change c104,c105,c106 to 10uf) 2,change eeprom u7 to real_time fram
	06.12.21	1,change eeprom epage,add flash fb32 2,del c164,add u28
	06.12.26	1,change 3906 pin2_c to pin2_e.(in pcb Q3 changed,q13,q14 remain)
		THE SECOND PCB

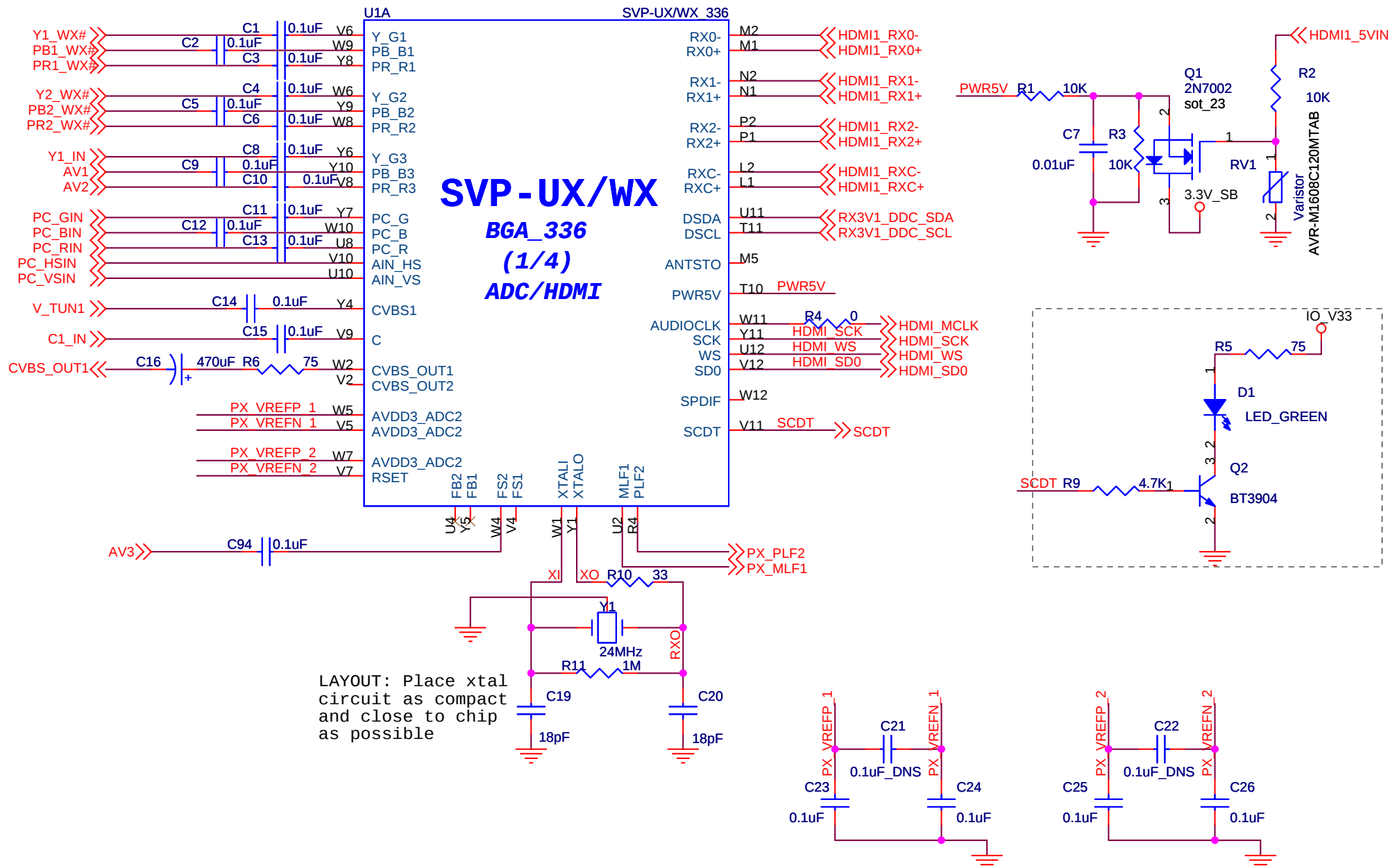
07.01.05	1,swap con15 pin2 and pin3 2,change cpu sw3,sw4 to blu_sw1,blu_sw2;change con10_pin15 _pin16 to SAV_L SAV_R 3,add r110 blu_pwr 4,add CON3_4pin;p1 5v;p2 gnd;p3 light;p4 svp_vddm 5,add pad con16 pin9_keya;change con16 from sip8 to sip8+1 6,add TP1-TP8
07.01.08	1,add con4,r178,r179,r180,r181,r182,c130,c131
07.01.09	1,del con17,con18 2,del c116,c118,c124,r168,r169,r170,r183,r184,r185 3,add TP9-TP126
07.01.15	1,modify DNS compent

1			2			3			4			5											
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A	REV	DATE	DESCRIPTION																				
		06.10.27	1,modify the LVDS connector pin order 2,mirror RN19~RN24 3,del C159																				
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		06.11.27	1,del r86,r87 2,change r215,r216 to 5v_scl,5v_sda;change con14 footprint 3,del ja3 pin11,pin4																				
		06.11.28	1,del ja6 pin4 pin5'net gnd;del mh1-mh4 pin7'gnd 2,add r273 to con15_pin2 and pwm0.																				
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		06.12.13	1,del u10;change svp hdtv1 chanel. 2,del r8																				
		06.12.19	1,MCU(add fb29,fb30,fb31,c146,c148,c159,change c104,c105,c106 to 10uf) 2,change eeprom u7 to real_time fram																				
		06.12.21	1,change eeprom epage,add flash fb32 2,del c164,add u28																				
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Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com		
Title PLACEMENT		
Size B	Schematic Name LCD-932	Rev A
Date: Sunday, January 28, 2007	Sheet 2	of 13

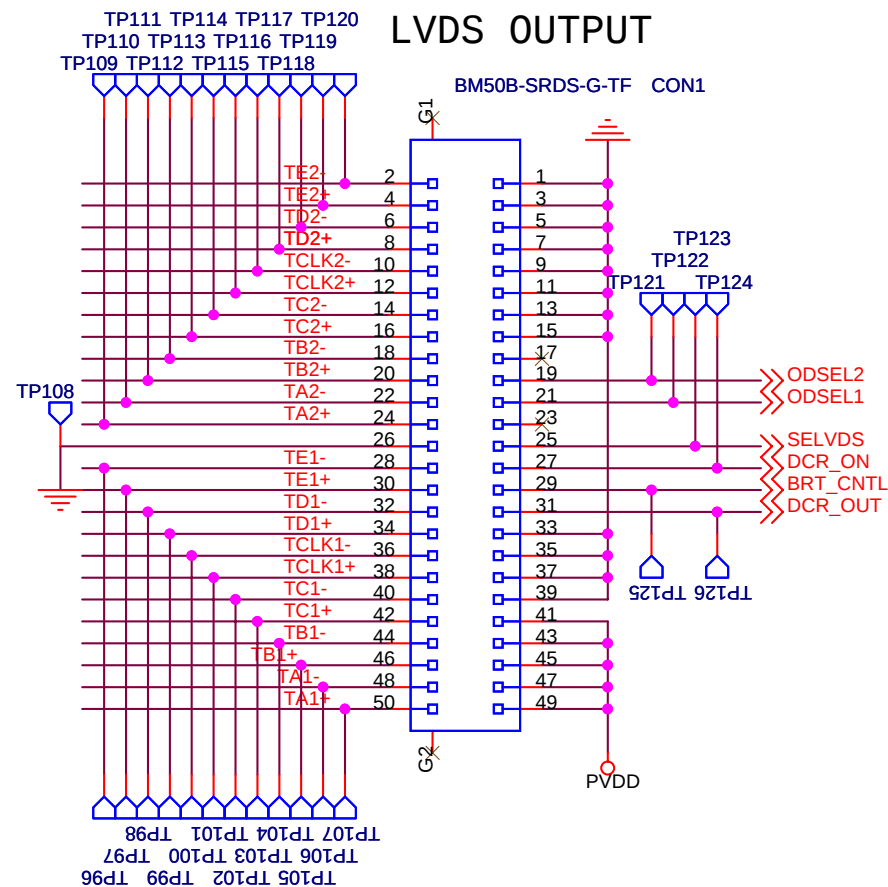
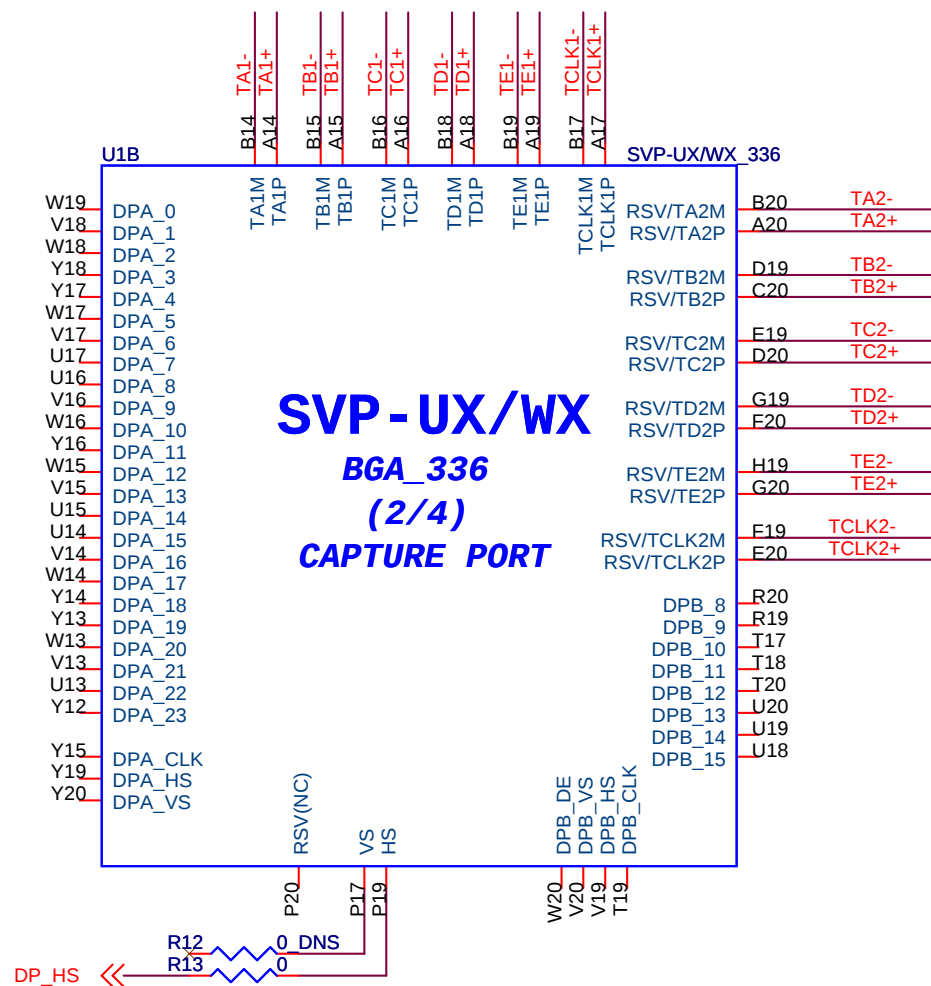


	SVP-PX/LX66	SVP-UX/WX
Y1	28.322MHz	24MHz



Trident Digital Media, Inc.
1090 East Arques Ave. Sunnyvale, CA 94085
<http://www.tridentmicro.com>

Title SVP-LX/PX66-1		
Size A	Schematic Name LCD-932	Rev A
Date: Thursday, March 01, 2007	Sheet 3	of 13



彩电维修资料网
TV160 彩电维修资料网
<http://www.tv160.net>
<http://www.tv160.net>

		Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com	
		Title SVP-LS/PX66-2	
Size A	Schematic Name LCD-932		Rev A
Date:	Sunday, January 28, 2007	Sheet	4 of 13

3V_SDA >> R14 10 PX_SDA
3V_SCL >> R15 10 PX_SCL

3.3V_SB
DP_HS >> R16 4.7K DNS
R17 4.7K

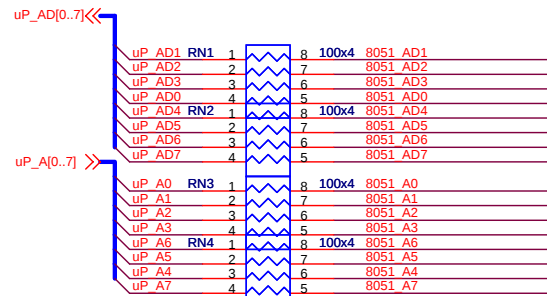
3.3V_SB
HDMI_WS >> R19 4.7K DNS
R20 4.7K

3.3V_SB
HDMI_SD0 >> R26 4.7K DNS
R27 4.7K

3.3V_SB
HDMI_SCK >> R30 4.7K DNS
R32 4.7K

Place close to SVP-PX

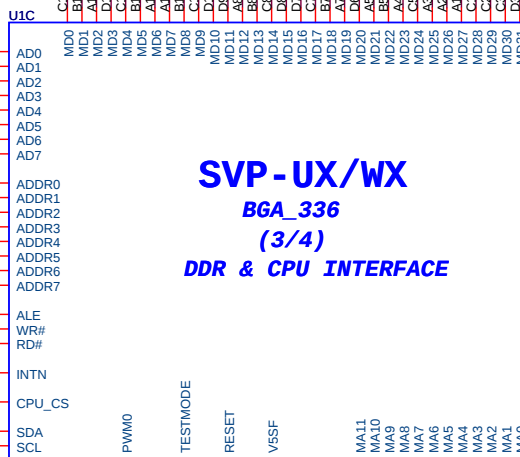
Pin Name	Pin No.	1 (HIGH)	0 (LOW)
DP_HS	P19	MPU in A/D Multiplex Mode	MPU in A/D Separate Mode
WS	U12	Use ALE to latch Address	Use Falling Edge of WR# & RD# to latch Address
SD0	V12	Use Rising Edge of WR# to latch data	Use Falling Edge of WR# to latch data
SCK	Y11	I2C Slave Address = 0x7E/7F	I2C Slave Address = 0x7C/7D



8051 ALE >> 8051 ALE
8051 WR# >> 8051 WR#
8051 RD# >> 8051 RD#

PX_INT# >> PX_INT#
8051_CS2PX >> R18 0 PX_CPUCS

8051 A0 N17
8051 A1 N18
8051 A2 N19
8051 A3 N20
8051 A4 M20
8051 A5 M19
8051 A6 M18
8051 A7 M17



ADDR0
ADDR1
ADDR2
ADDR3
ADDR4
ADDR5
ADDR6
ADDR7

ALE
WR#
RD#

INTN
CPU_CS

SDA
SCL

PWM0
TESTMODE
RESET
VSSF

PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
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PX_MA11
PX_MA10
PX_MA9
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PX_MA0

PX_MA11
PX_MA10
PX_MA9
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PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
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PX_MA11
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PX_MA6
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PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

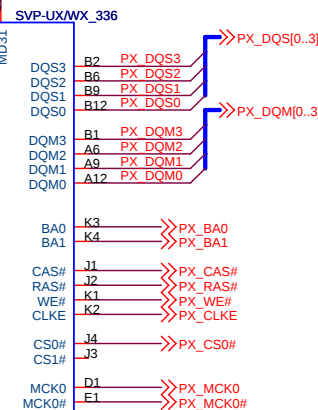
PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
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PX_MA7
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PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0

PX_MA11
PX_MA10
PX_MA9
PX_MA8
PX_MA7
PX_MA6
PX_MA5
PX_MA4
PX_MA3
PX_MA2
PX_MA1
PX_MA0



QDS3
QDS2
QDS1
QDS0

DQM3
DQM2
DQM1
DQM0

BA0
BA1

CAS#
RAS#
WE#
CLKE

CS0#
CS1#

MCK0
MCK0#

MVREF

SVP_VDDM
SVP_VDDM

C27 0.1uF
R21 1K

C29 0.1uF
R24 1K

C301 0.1uF
C29 0.1uF

R28 1.2K
R29 4.7K

R31 1K
R33 100

Q3 MMBT3906
C30 100uF
C31 0.01uF

BRT_CNTL

TV160 彩电维修资料网
http://www.tv160.net

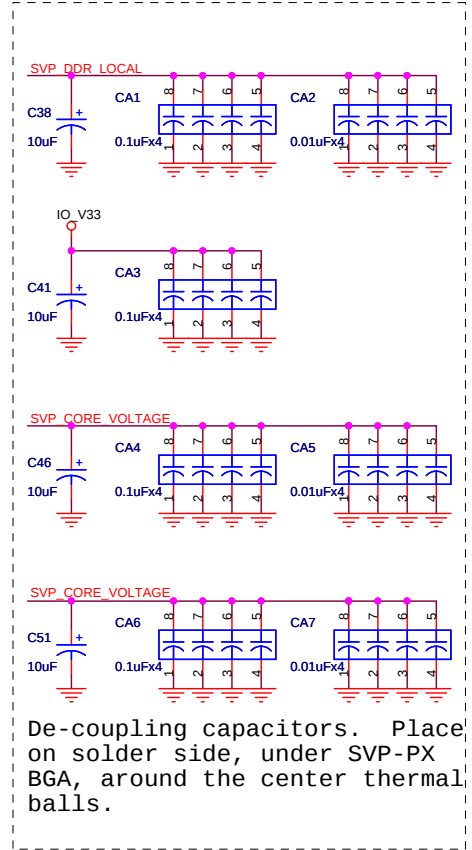
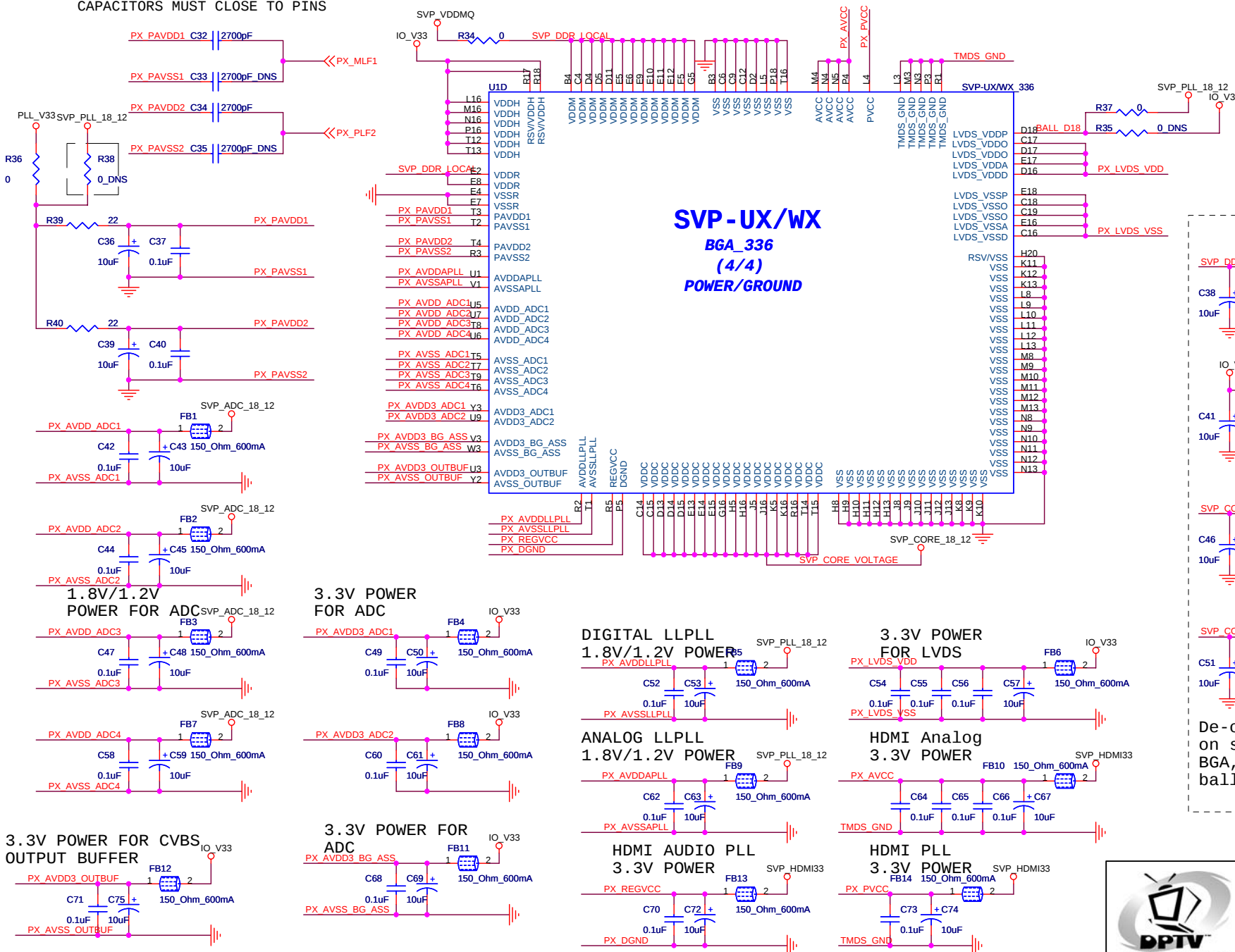
PRELIMINARY



Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com		
Title SVP-LX/PX66-3		
Size B	Schematic Name LCD-932	Rev A
Date: Sunday, January 28, 2007	Sheet 5	of 13

CAPACITORS MUST CLOSE TO PINS

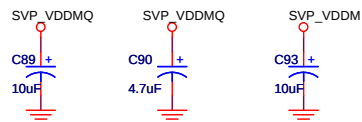
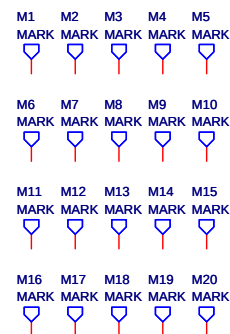
	SVP-PX/LX66	SVP-UX/WX
R36,R37	OFF	ON
R35,R38	ON	OFF
C32,C34	OFF	ON
C33,C35	ON	OFF



De-coupling capacitors. Place on solder side, under SVP-PX BGA, around the center thermal balls.

PRELIMINARY

			Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com		
Title			SVP-UX/WX_336-4		
Size B	Schematic Name LCD-932				Rev A
Date:	Sunday, January 28, 2007		Sheet	6	of 13



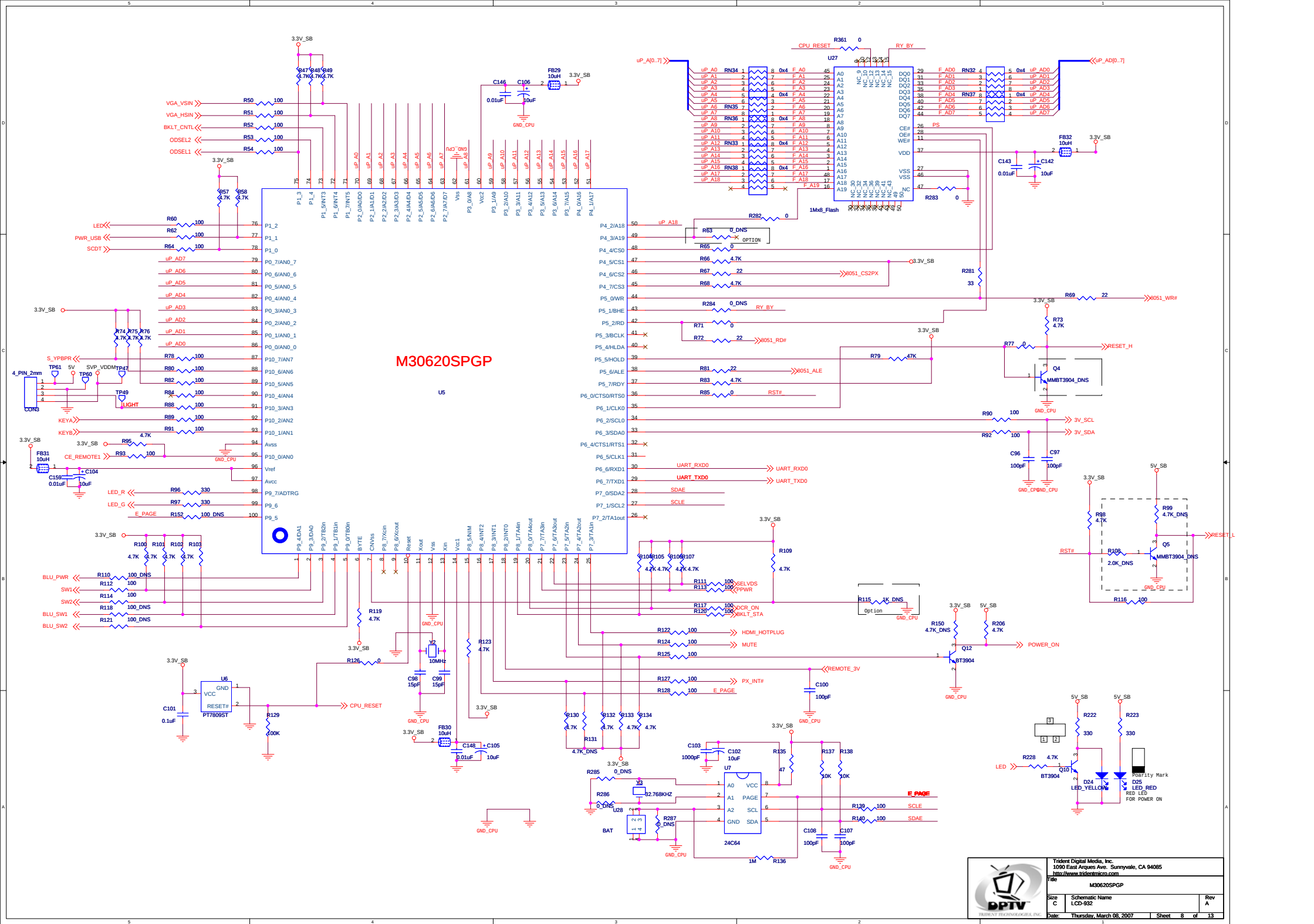
VDDMQ / VDDM de-caps

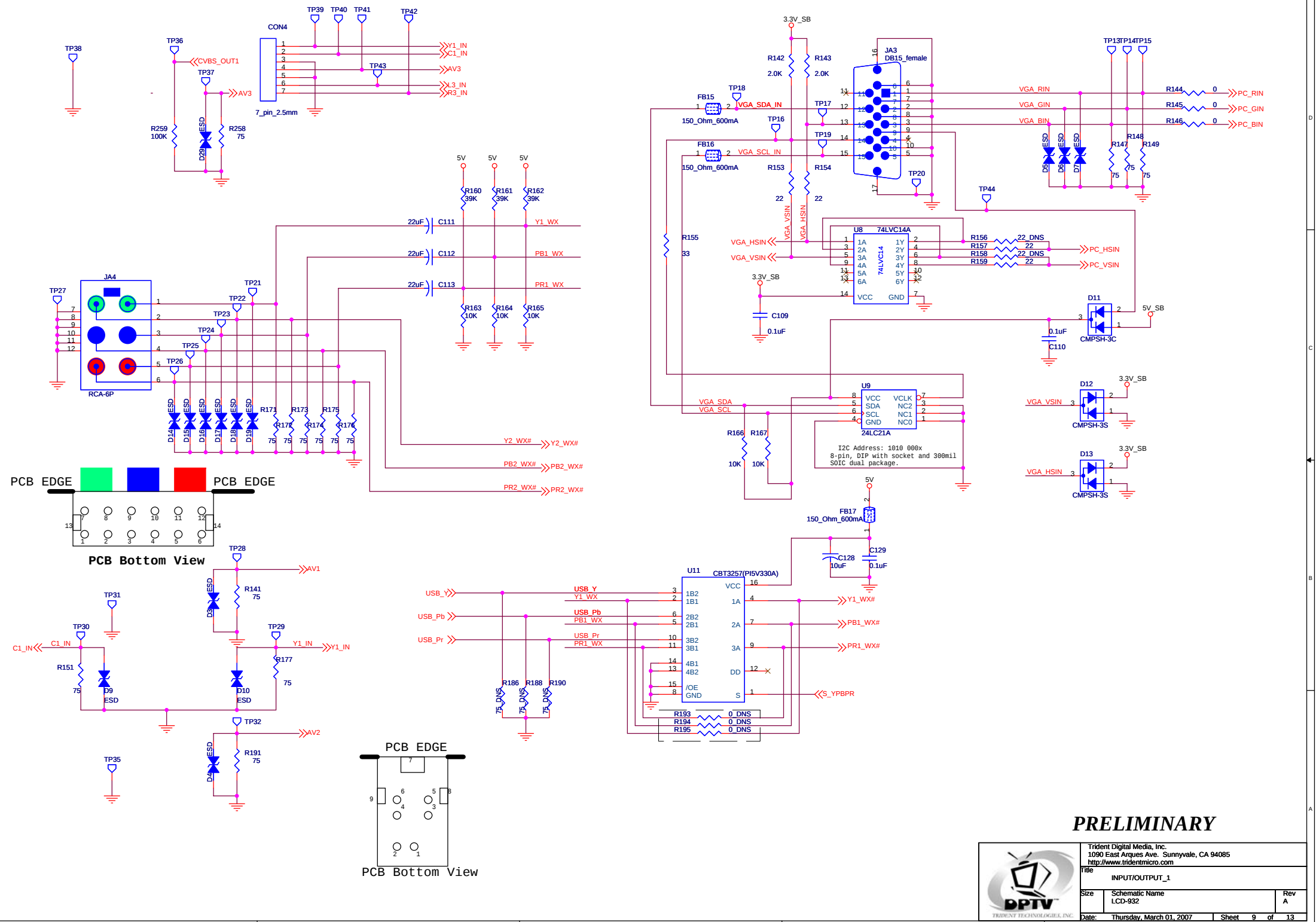
C77 0.1uF C78 0.1uF C79 0.01uF C80 0.01uF C81 0.01uF C82 0.01uF C83 0.01uF C84 4700pF C85 4700pF C86 4700pF

Diagram illustrating the Memory Data Bus Swapping Scheme for Optimal Routing. The diagram shows a central vertical bus structure with multiple horizontal connections to memory modules. The bus is divided into sections labeled DQM0, DQM1, DQM2, and DQM3. Each section contains a set of memory modules (RN5, RN6, RN7, RN8, RN9, RN10, RN11, RN12) and their corresponding data bus connections (PX_MCK0, PX_MCK0#, PX_DQS0, PX_DQS1, PX_DQS2, PX_DQS3, PX_MD0, PX_MD1, PX_MD2, PX_MD3, PX_MD4, PX_MD5, PX_MD6, PX_MD7, PX_MD8, PX_MD9, PX_MD10, PX_MD11, PX_MD12, PX_MD13, PX_MD14, PX_MD15, PX_MD16, PX_MD17, PX_MD18, PX_MD19, PX_MD20, PX_MD21, PX_MD22, PX_MD23, PX_MD24, PX_MD25, PX_MD26, PX_MD27, PX_MD28, PX_MD29, PX_MD30, PX_MD31). The diagram also shows the connection of the bus to the memory modules via a 15x4 multiplexer. The bus is labeled with signals like <<PX_MCK0, <<PX_MCK0#, <<PX_DQS[0..3], <<PX_MD[0..31], <<DQM0, <<DQS0, <<DQM1, <<DQS1, <<DQM2, <<DQS2, <<DQM3, <<DQS3.



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Title			
SDRAM 8MX16			
Size B	Schematic Name LCD-932		Rev A
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Title

INPUT/OUTPUT_1

Size

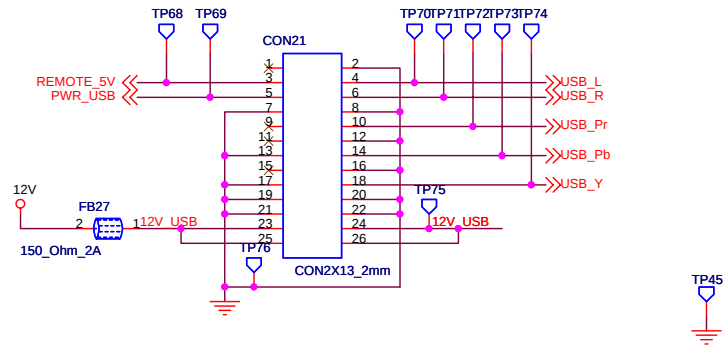
Schematic Name
LCD-832

Rev
A

Date:

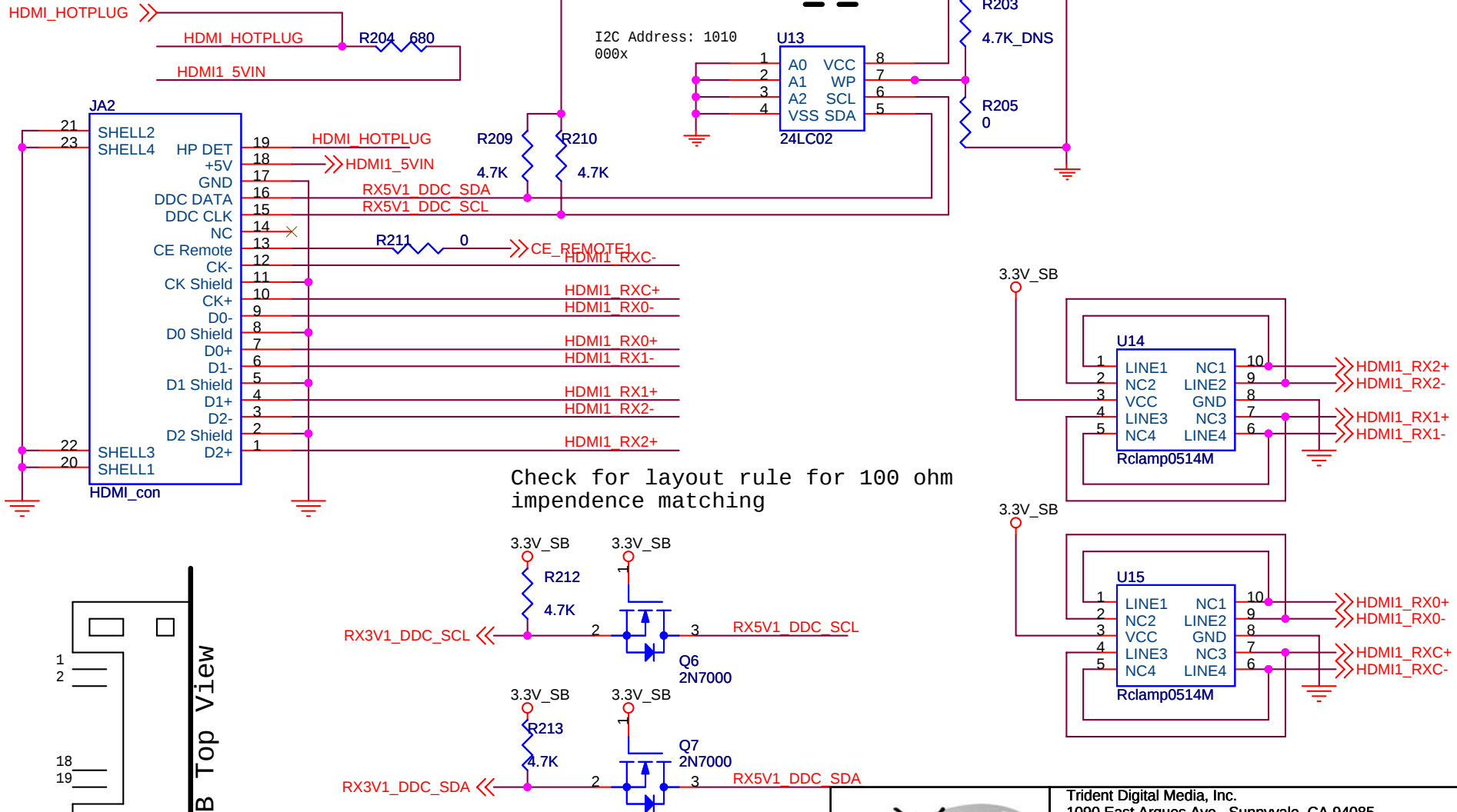
Thursday, March 01, 2007

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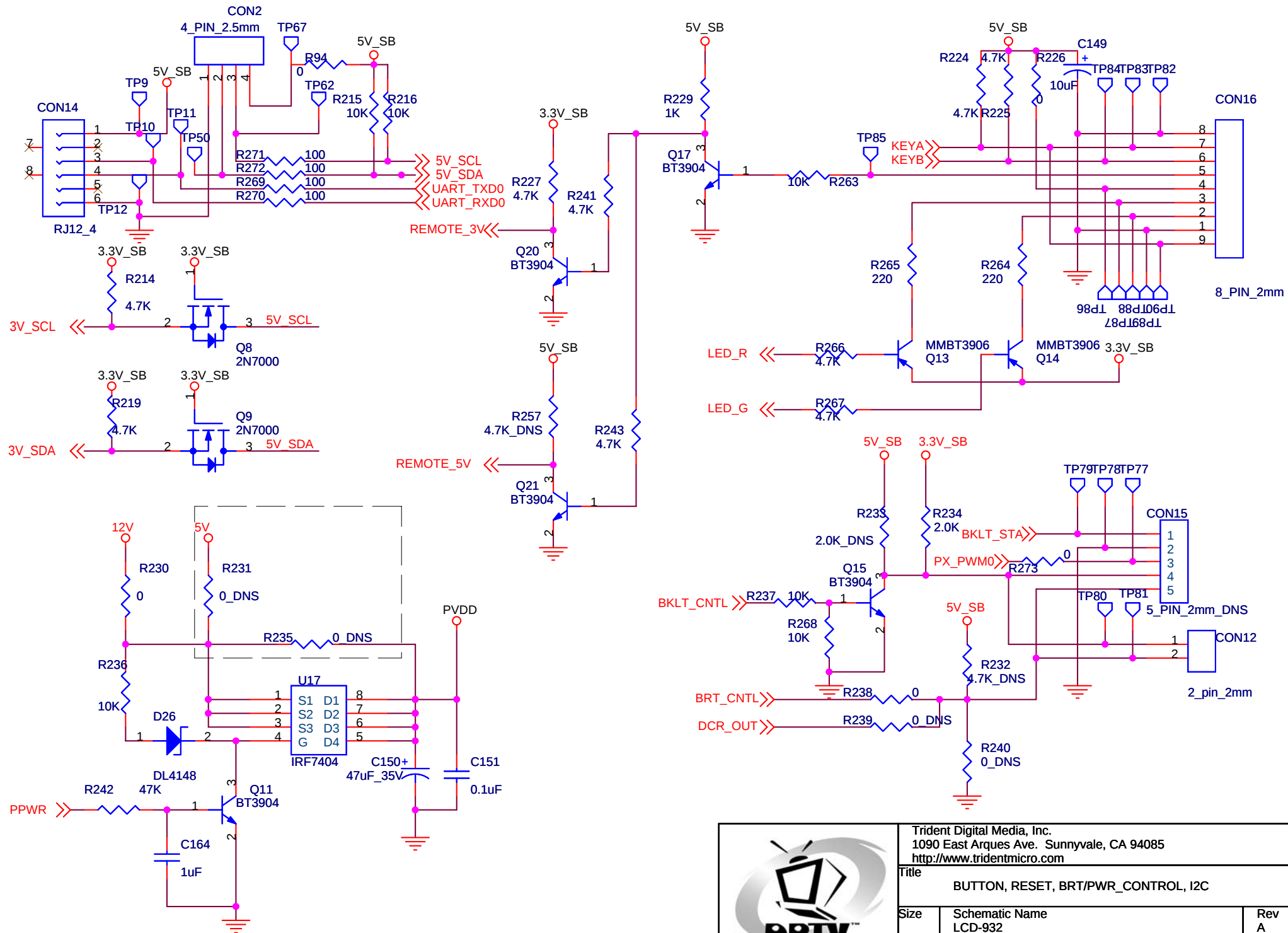
		Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com	
		Title Audio_INPUT/OUTPUT_2	
Size	Schematic Name LCD-932		Rev A
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HDMI INPUT

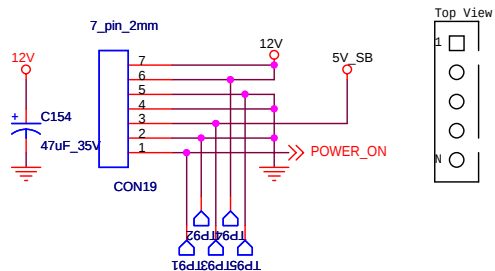


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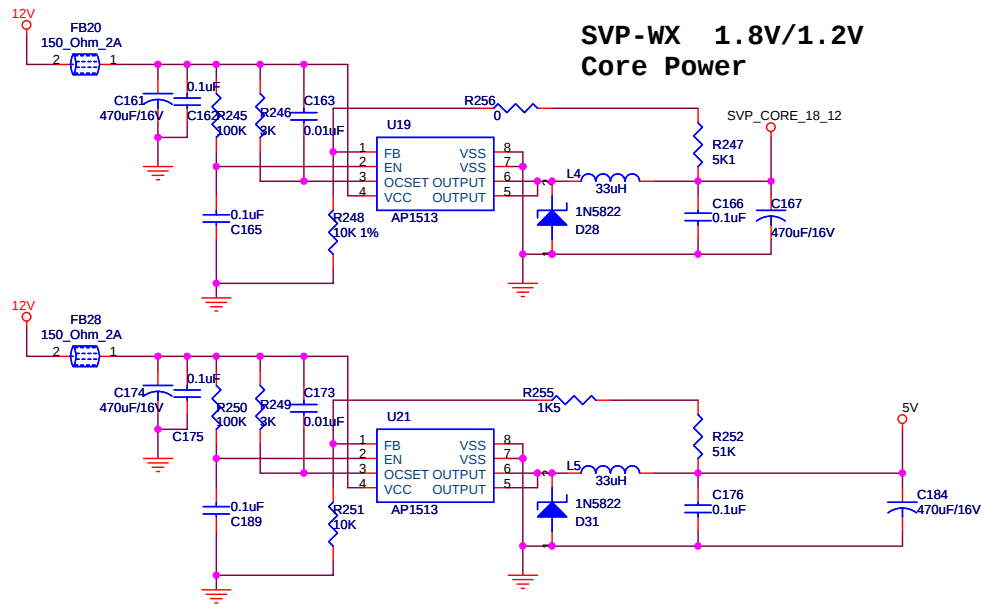
Title HDMI INPUT		
Size A	Schematic Name LCD-932	Rev A
Date:	Thursday, March 01, 2007	Sheet 11 of 13



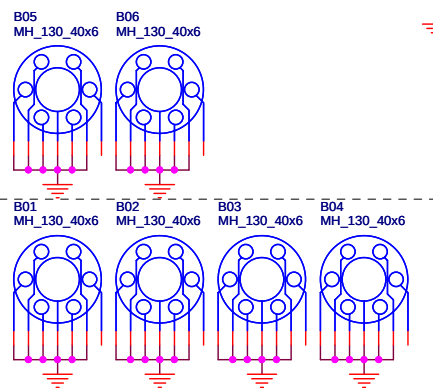
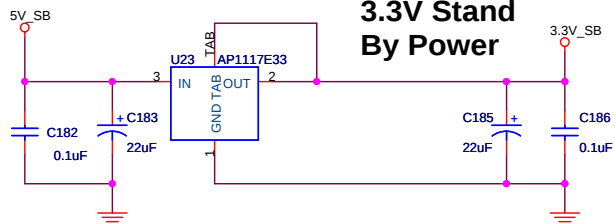
Trident Digital Media, Inc. 1090 East Arques Ave. Sunnyvale, CA 94085 http://www.tridentmicro.com		
Title BUTTON, RESET, BRT/PWR_CONTROL, I2C		
Size	Schematic Name LCD-932	Rev A
Date:	Thursday, February 01, 2007	Sheet 12 of 13



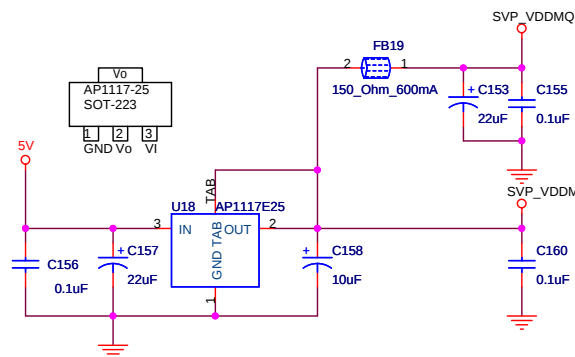
SVP-WX 1.8V/1.2V Core Power



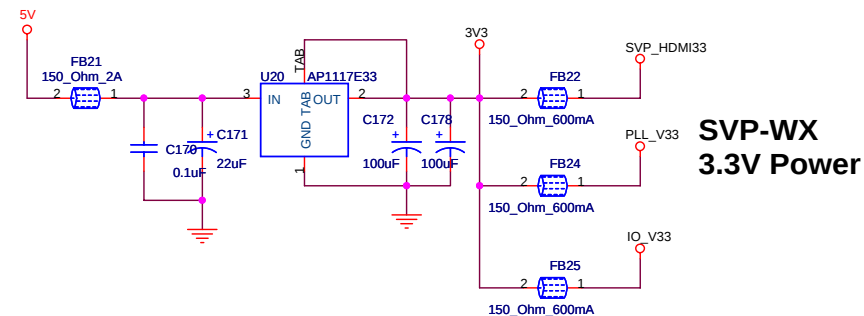
3.3V Stand By Power



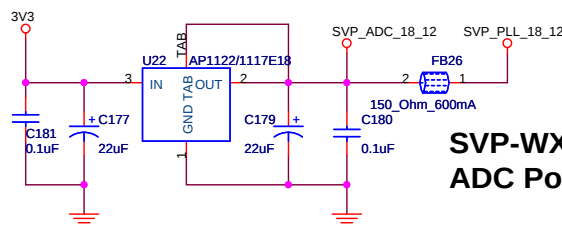
Power for DDR IO PADS



Power for DDR Core Logic



SVP-WX 1.8V/1.2V ADC Power



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	Title POWER			
	Size B	Schematic Name LCD-932		Rev A
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