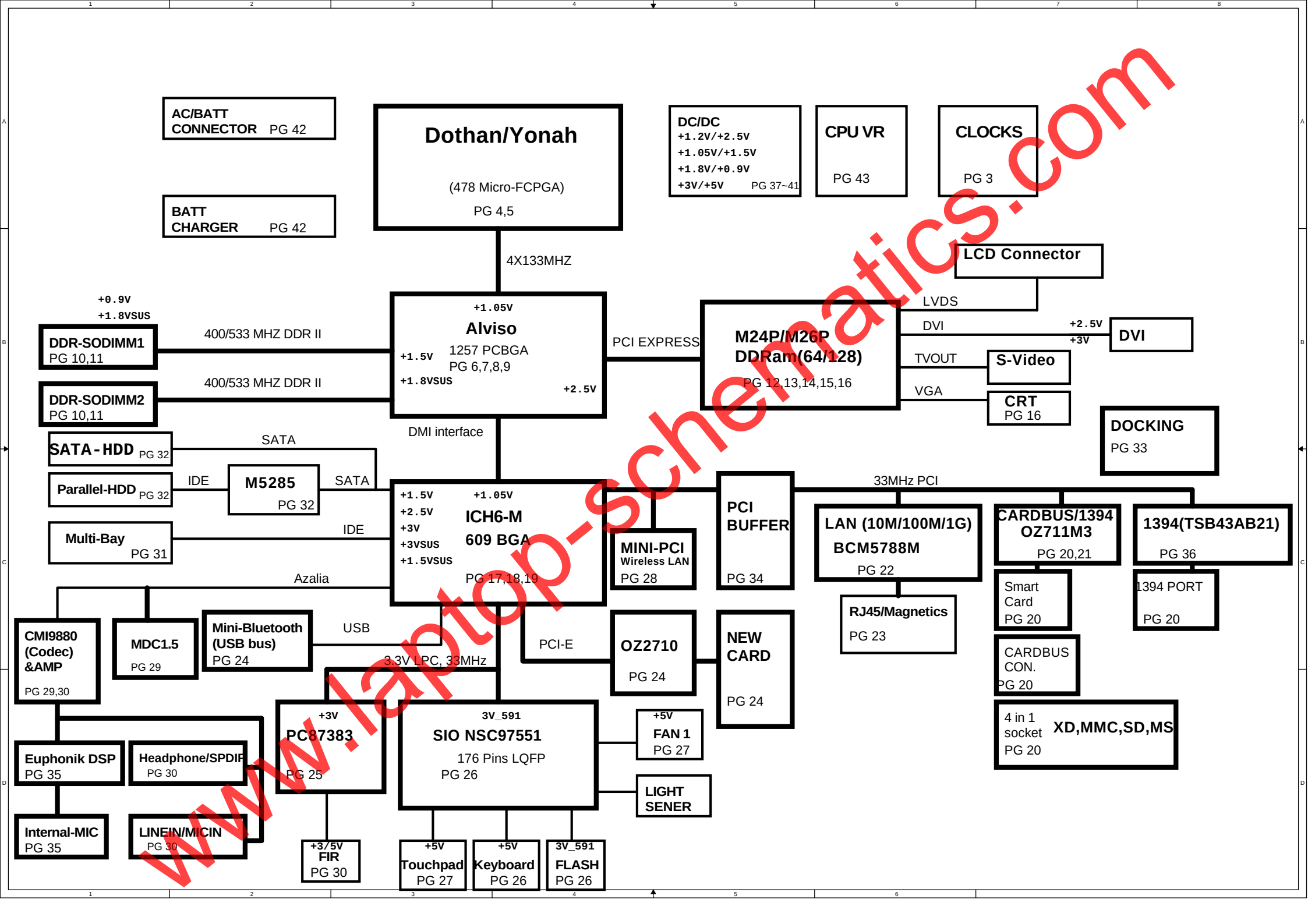


Check again

Voltage Rails		ON S0~S1	ON S3	ON S4	ON S5	Control signal
12VOUT		X	X	X	X	
3V_591		X	X	X	X	
5VPCU		X	X	X	X	
+3V_S5		X	X	X	X	S5_ON
3V_LAN		X	X	X	X	
+1.5V_S5		X	X	X	X	S5_ON
+1.8VSUS		X	X			SUSON
+3VSUS		X	X			SUSD
+5VSUS		X	X			SUSD
SMDDR_VTERM	DDR Termination voltage	X	X			MAINON
SMDDR_VREF		X				MAINON
VGA_PCIE_1.2V		X				MAINON
VCC_CORE	Core voltage for Processor	X				VR_ON
+VCCP	1.05V rail for Processor I/O	X				MAINON
+1.5V		X				MAINON
+1.8V		X				MAIND
+2.5V		X				MAIND
+3V		X				MAIND
+5V						MAIND
+12V		X				MAINON
+3VRUN		X				PCI_Switch_Power_ON
+5VRUN		X				PCI_Switch_Power_ON

Change History

5/28
1.System_DVI DET function move in EZ port , So,Del Q47,R557
2.Addition AND gate for DOCKING Power Good AND DockingIN Singal combine Circuit
3.Addition Power led circuit for system
4.Change D34 AND D35 + -
5.Addition LID Switch and LID connector
6.Addition RC Delay for PCIE1.2V
7.Change EC Three GPIO port same to ZL2
5/31
1.Change C145 PCB Footprint to 3528
2.Combine USB and bluetooth connector to 19pin connector 87212-1900
3.Change PCBFootprint 88216-1200 to 88213-1200
4.Change USB connector bypass C to 0805 10u
5.Adujst 80pin connector 3 singal
6/1
1.Update power all circuit for GND name
2.Addition OR to PRST
3.Change IDE RST

6/2
1.Change ICH-6 USB Port
2.Del CDR,CDL,CDGND Singal and DEL prevent CDR,CDL,CDGND noise circuit
6/4
1.U49,U50, Form 3VRUN change to +3V AND CHANGE MINPCI connector to PCI BUS,And addition PCI_SWRST # AND PCI_SWRST1#
2.Change BT_POWER NAME
3.Change VOIP AGND

6/7
1.Change VOIP AGND TO AGND2 for Layout

External PCI Devices

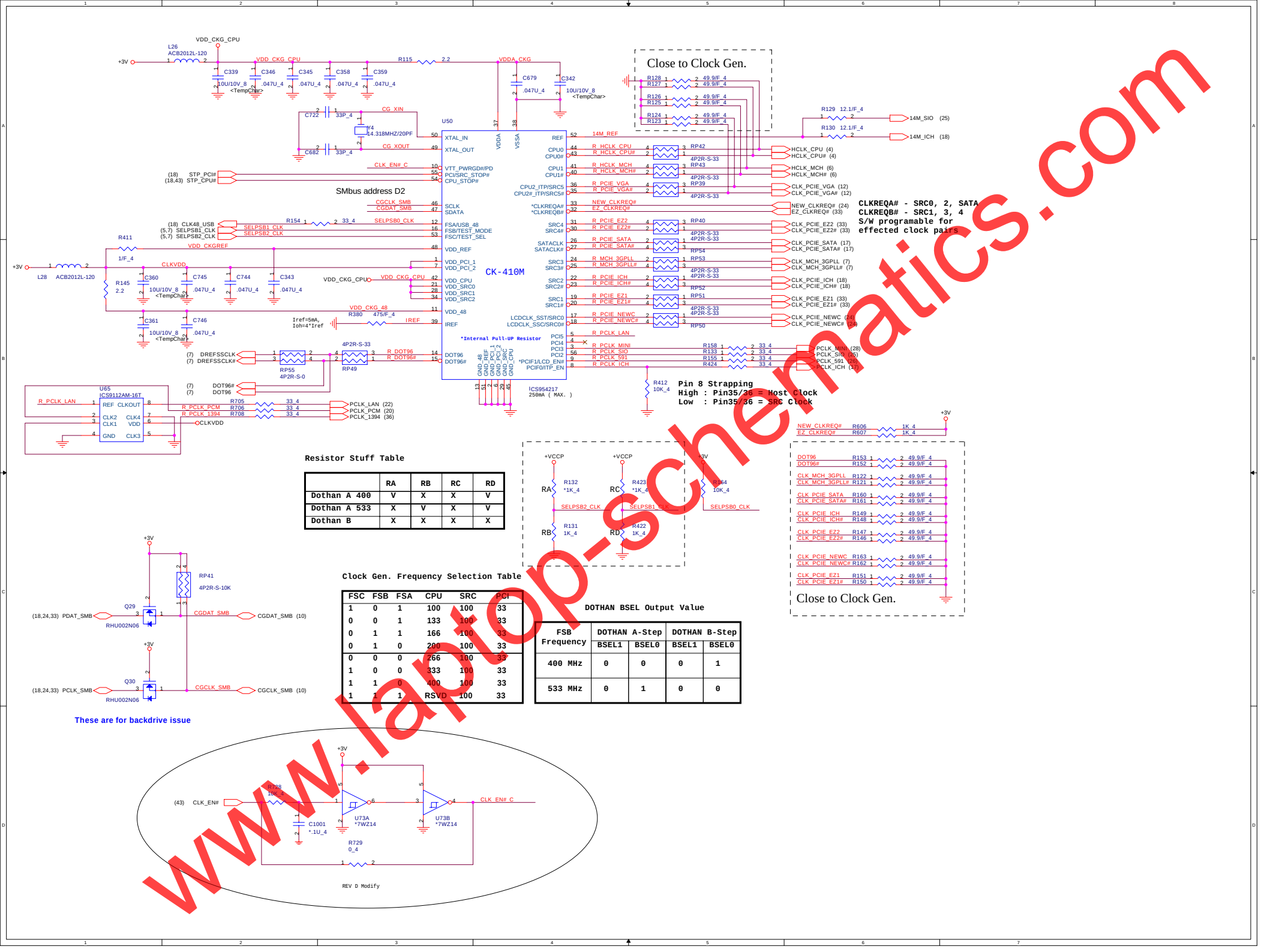
Device	IDSEL#	REQ#/GNT#	Interrupts
CardBus+Smart Card	AD25	1	PIRQC/B
Mini-PCI	AD19	2	PIRQB/D
LAN	AD22	0	PIRQA
1394	AD23	3	PIRQD

EC SM Bus1 address

Device
Smart Battery
THERMAL SENSOR
LIGHT SENER
VOIP FLASH ROM

ICH6-M SM Bus address

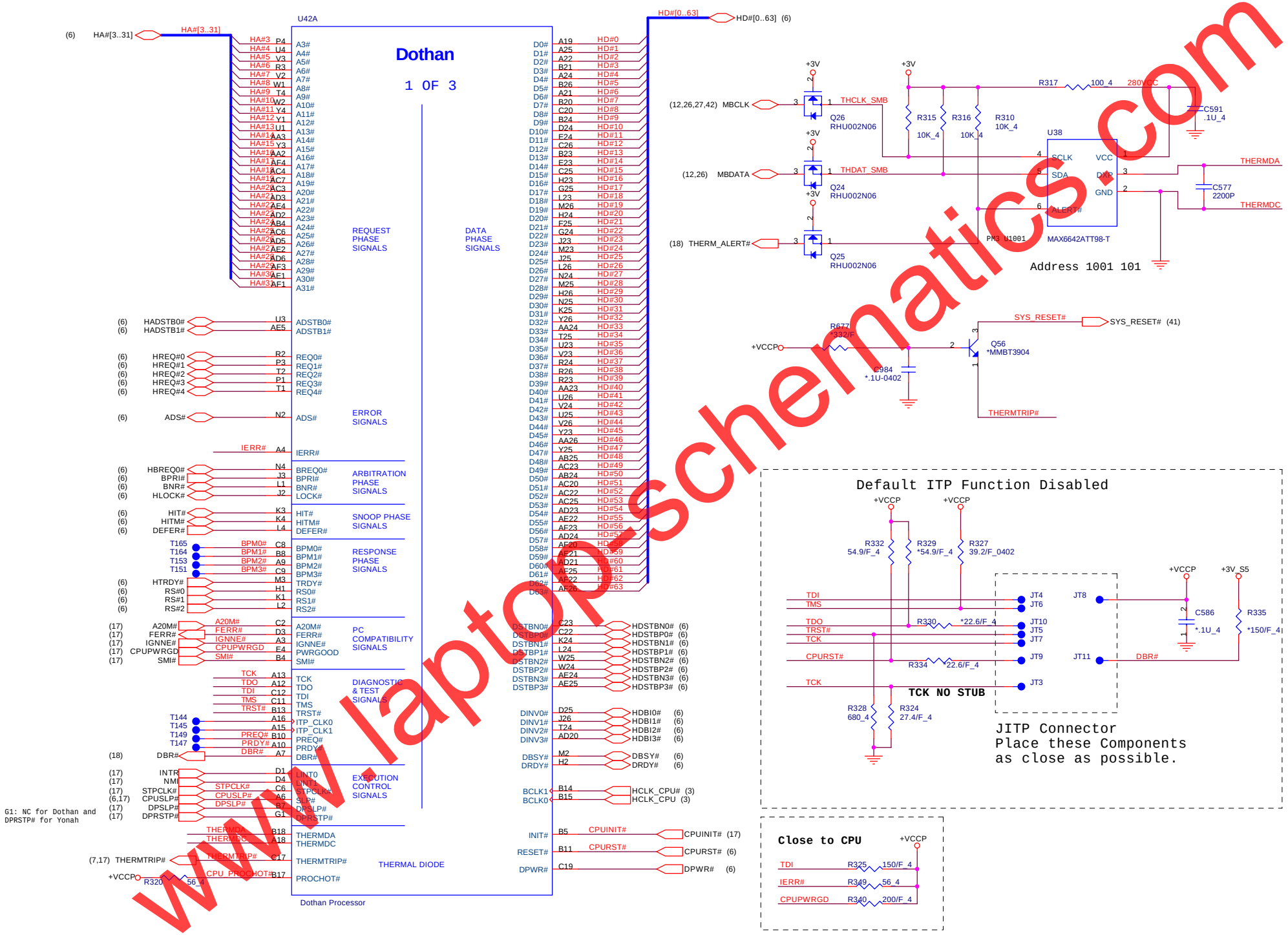
Device	
SODIMM	**1010 000X b**
Clock Gen	**1101 001x b**

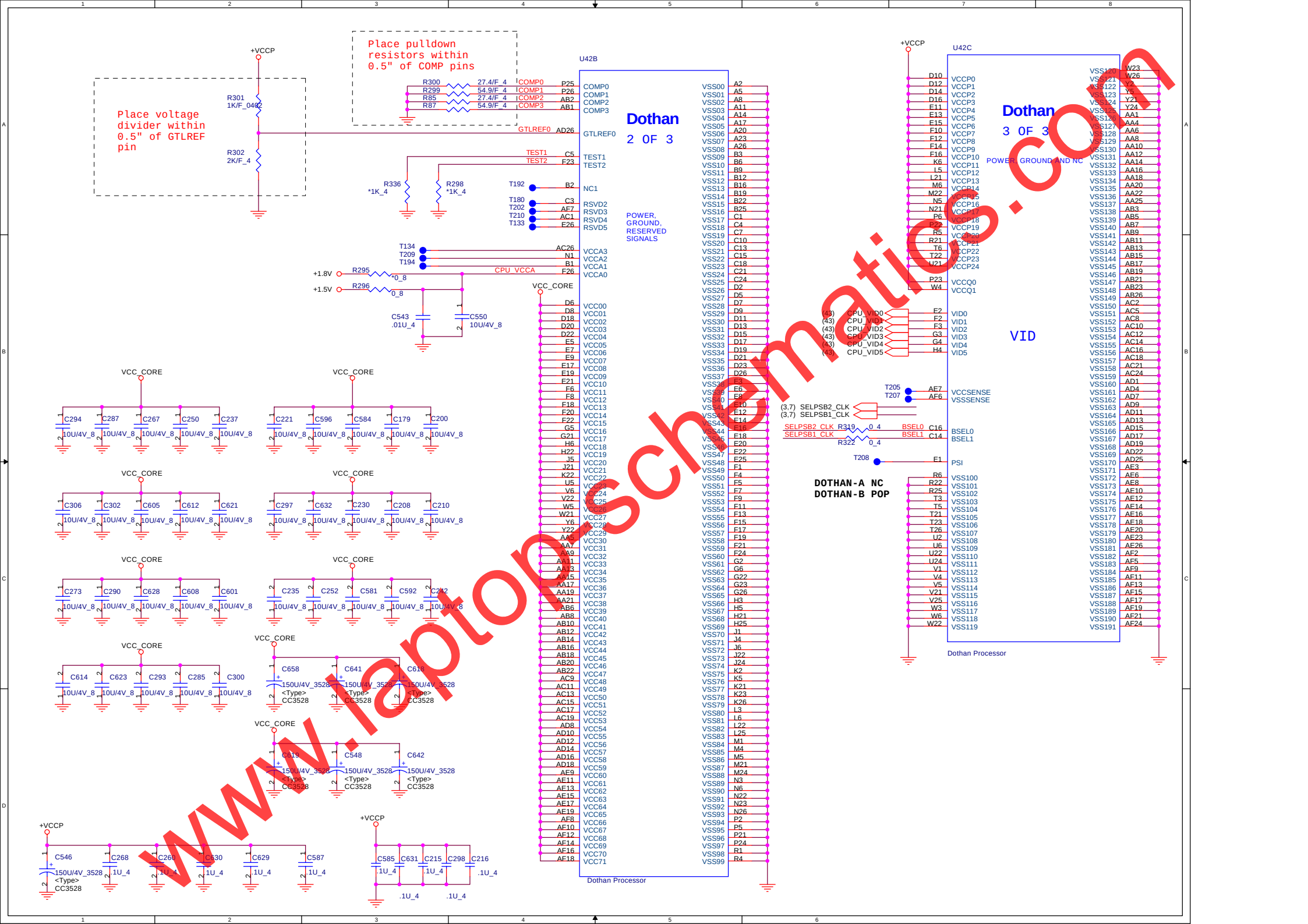


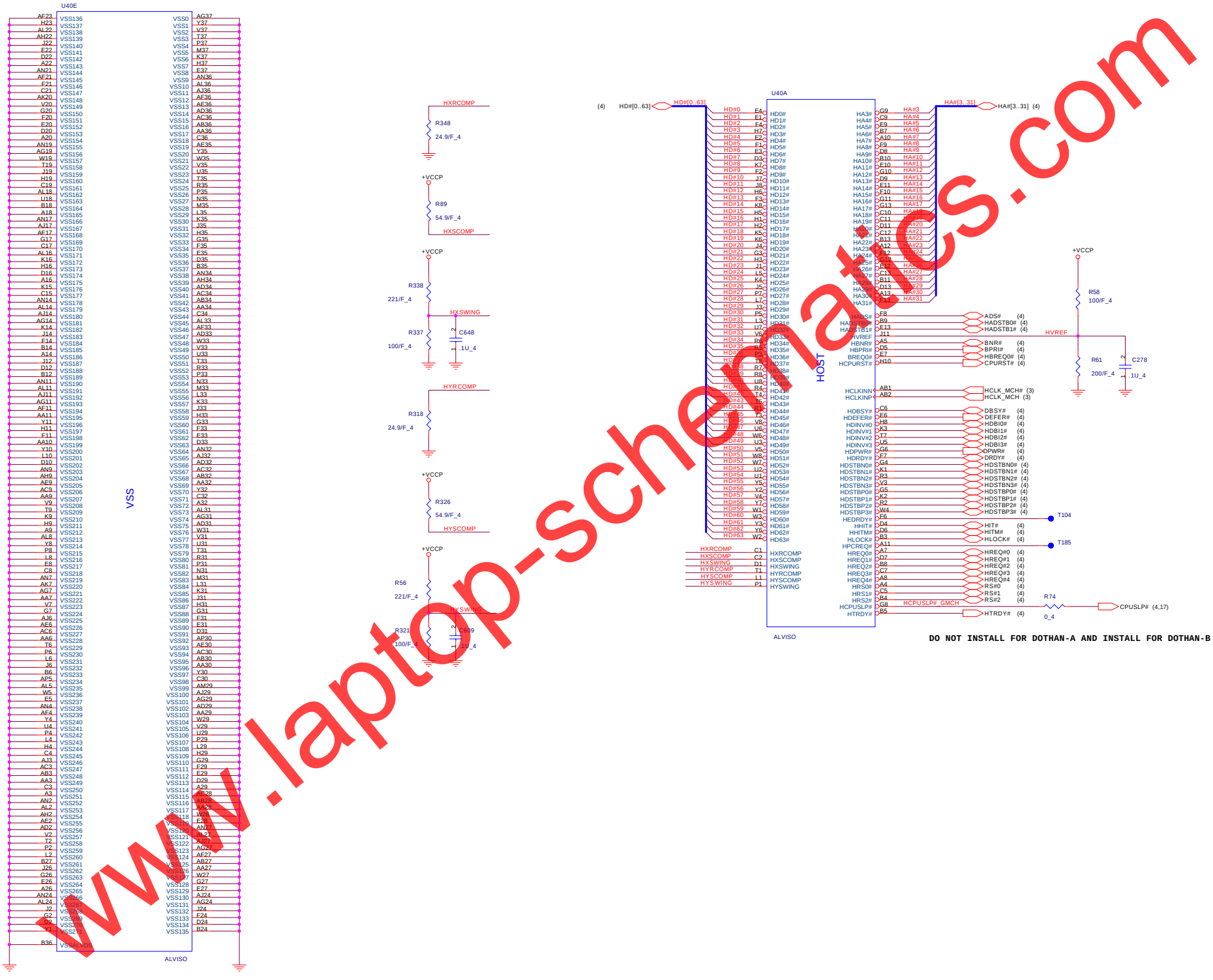
	RA	RB	RC	RD
Dothan A 400	V	X	X	V
Dothan A 533	X	V	X	V
Dothan B	X	X	X	X

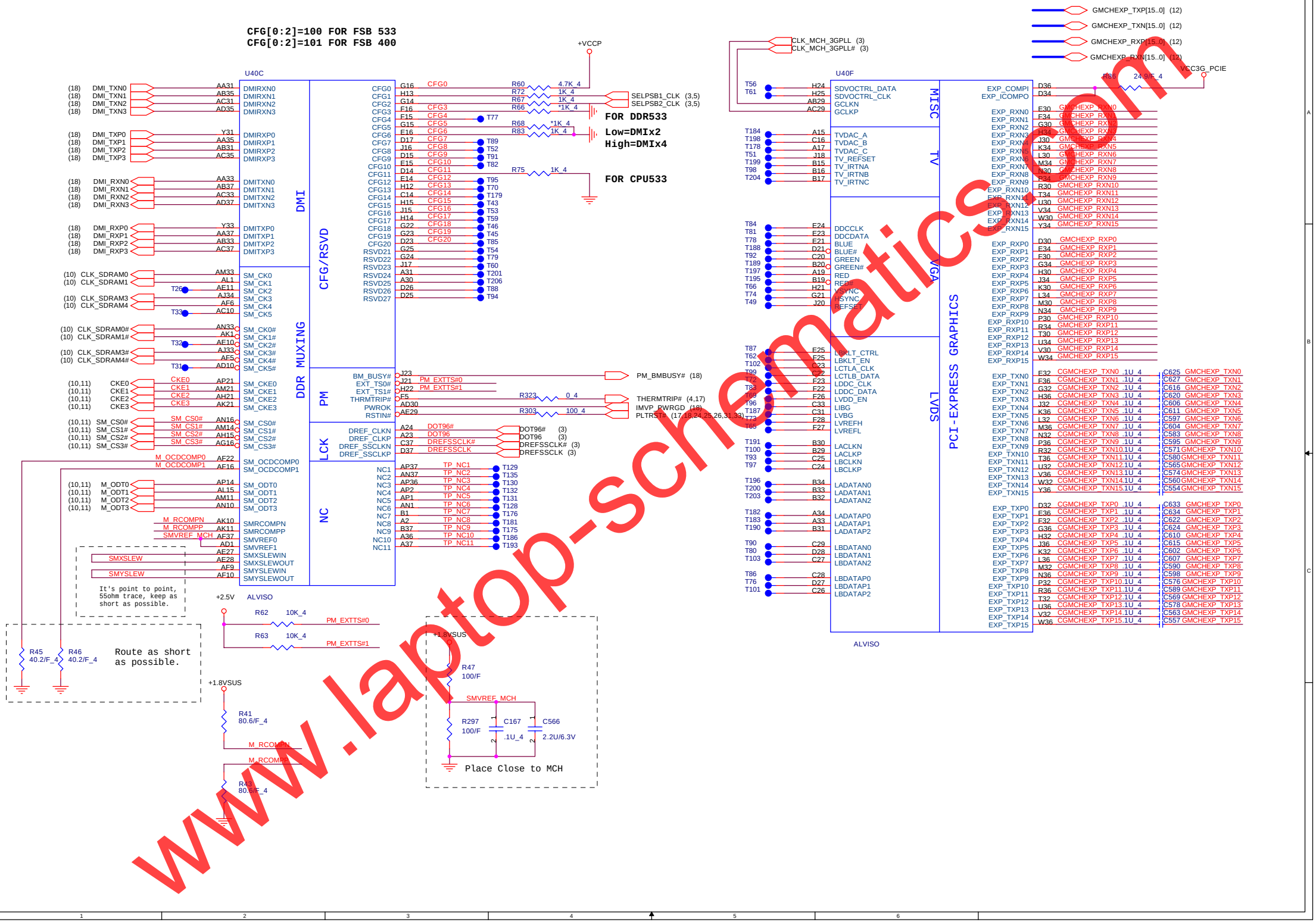
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

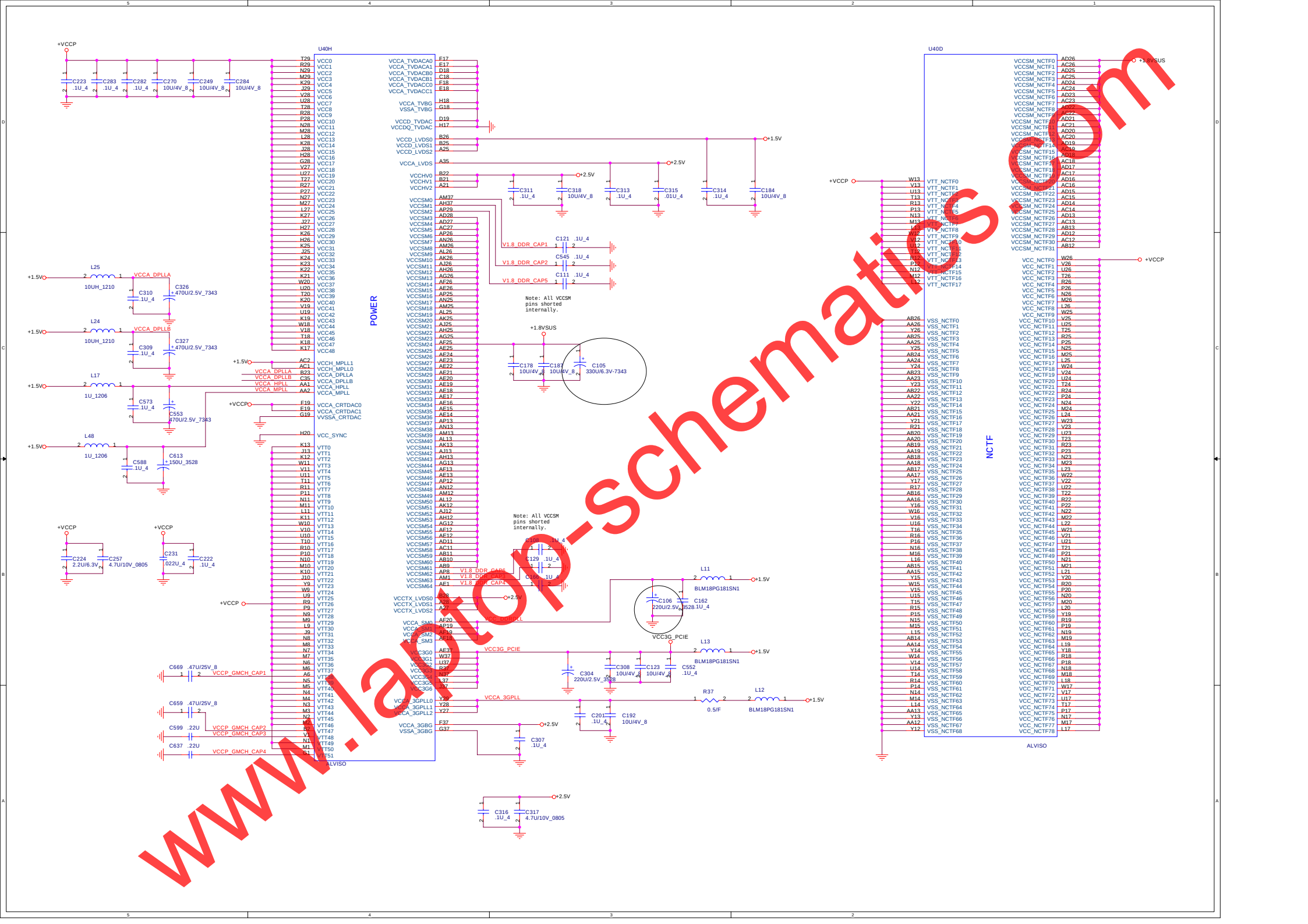
FSB Frequency	DOTHAN A-Step		DOTHAN B-Step	
	BSEL1	BSEL0	BSEL1	BSEL0
400 MHz	0	0	0	1
533 MHz	0	1	0	0

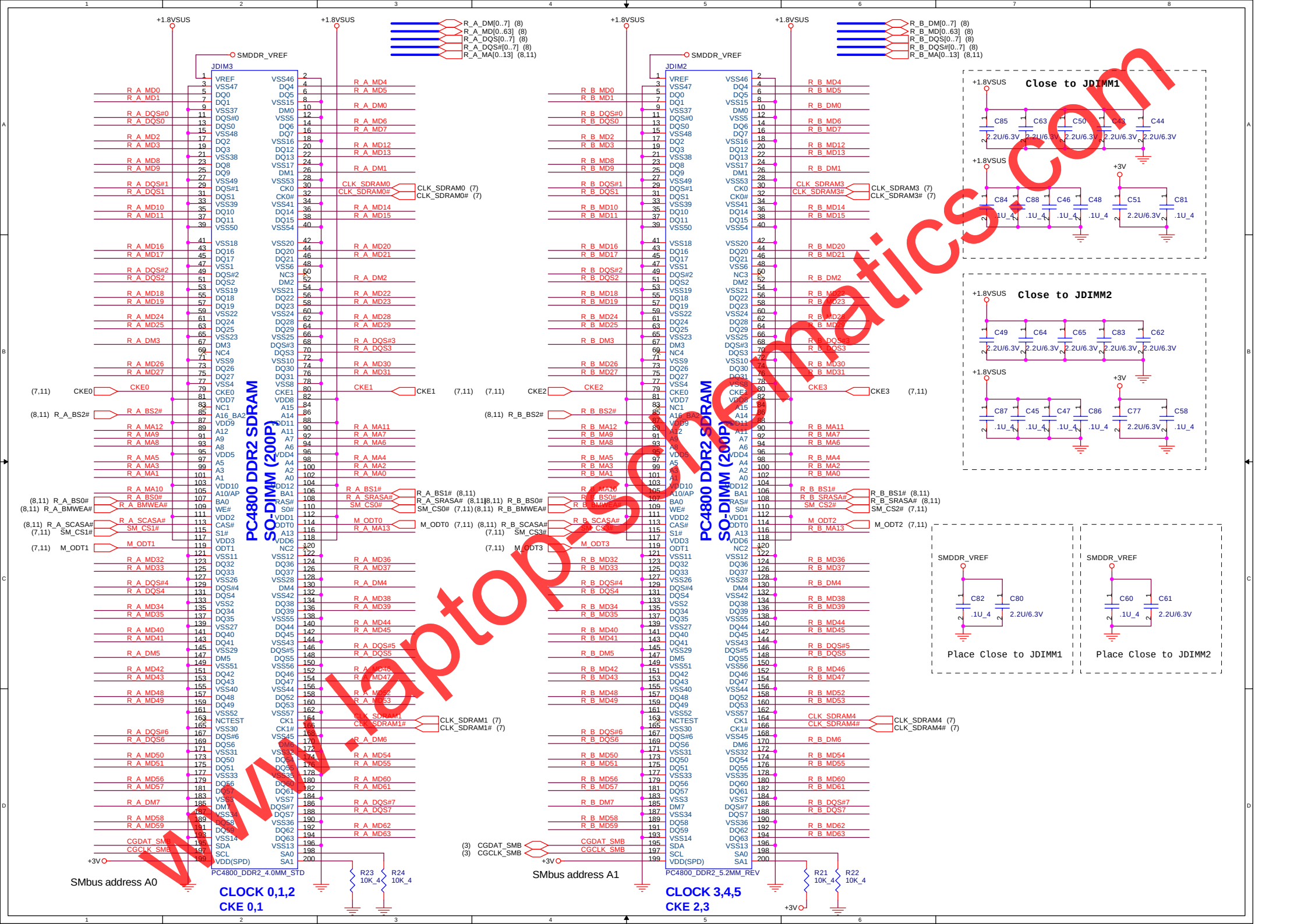


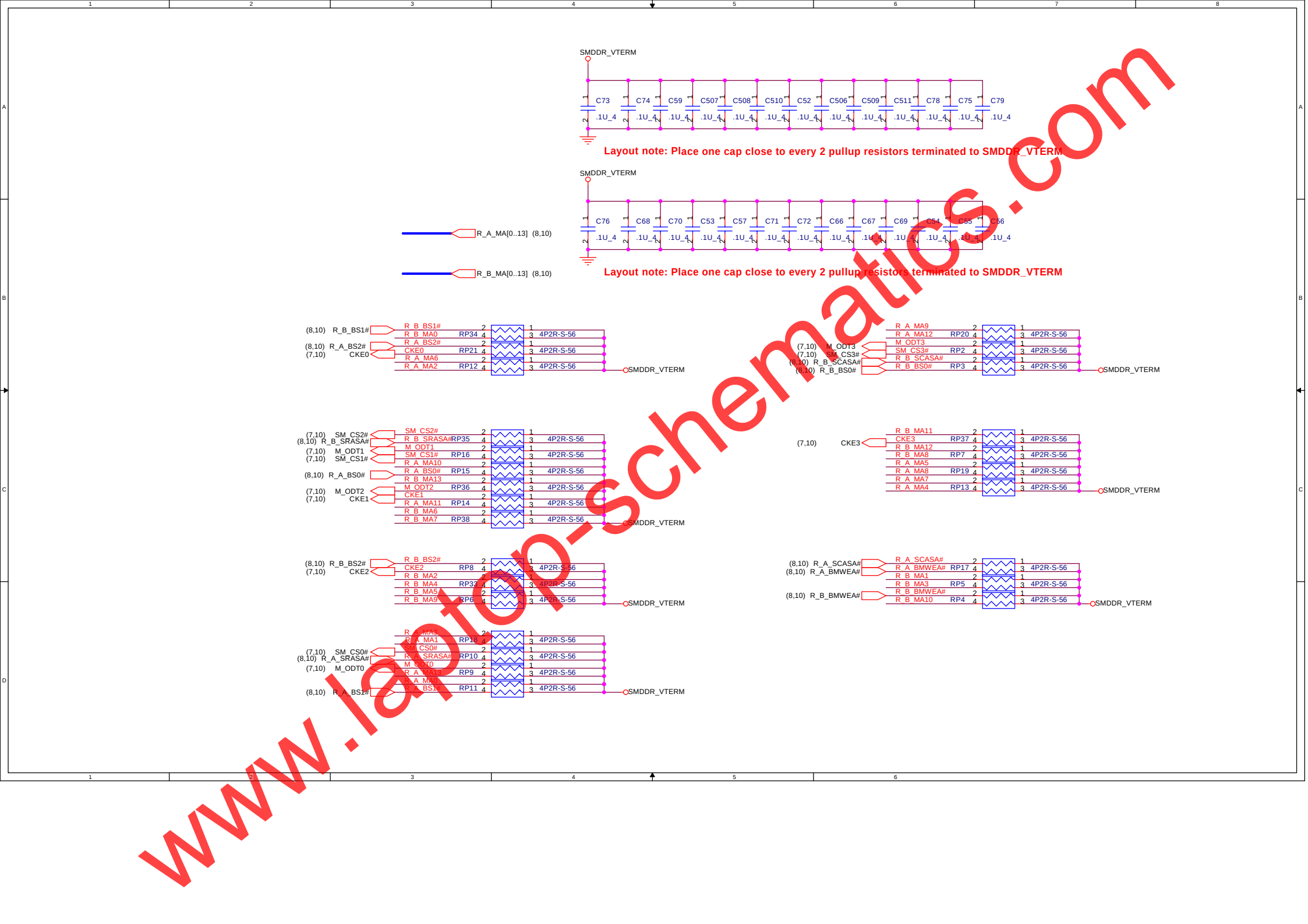

Place pulldown resistors within 0.5" of COMP pins
Place voltage divider within 0.5" of GTLREF pin
U42B
Dothan 2 OF 3
POWER, GROUND, RESERVED SIGNALS
Dothan Processor
U42C
Dothan 3 OF 3
POWER, GROUND AND NC
VID
Dothan Processor
DOTHAN-A NC
DOTHAN-B POP
VCC_CORE
+VCCP
+1.8V
+1.5V
www.laptopschematics.com

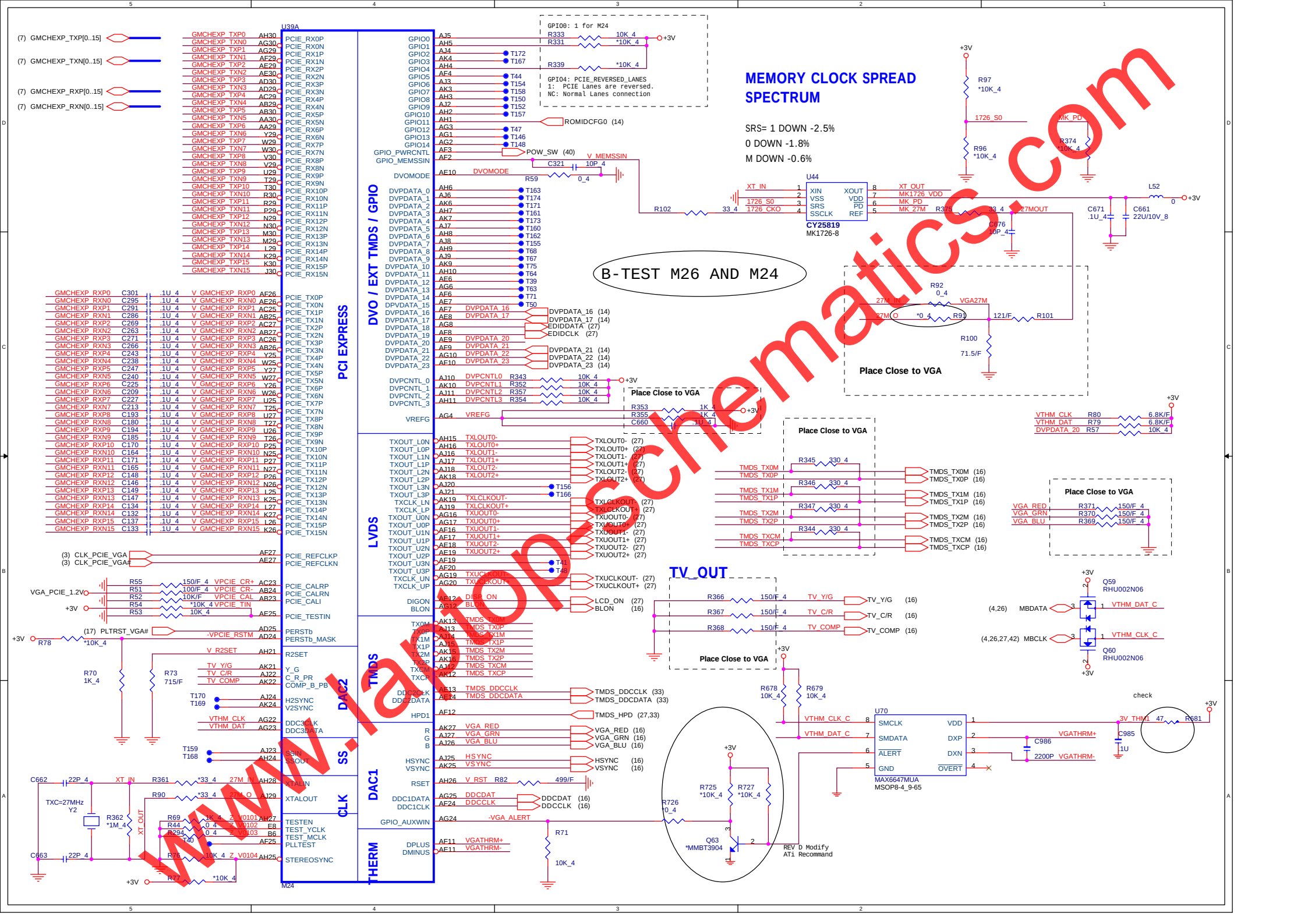


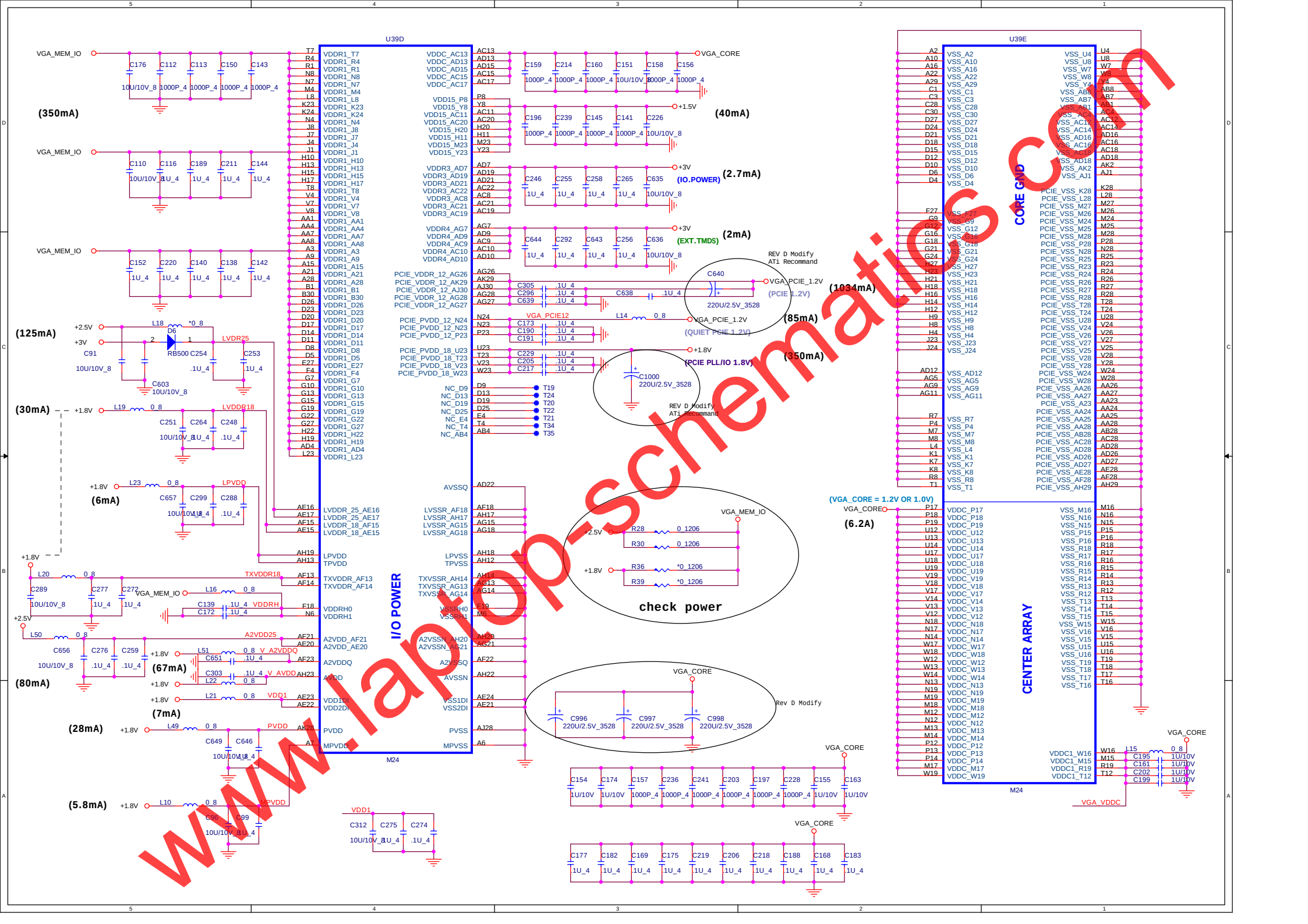


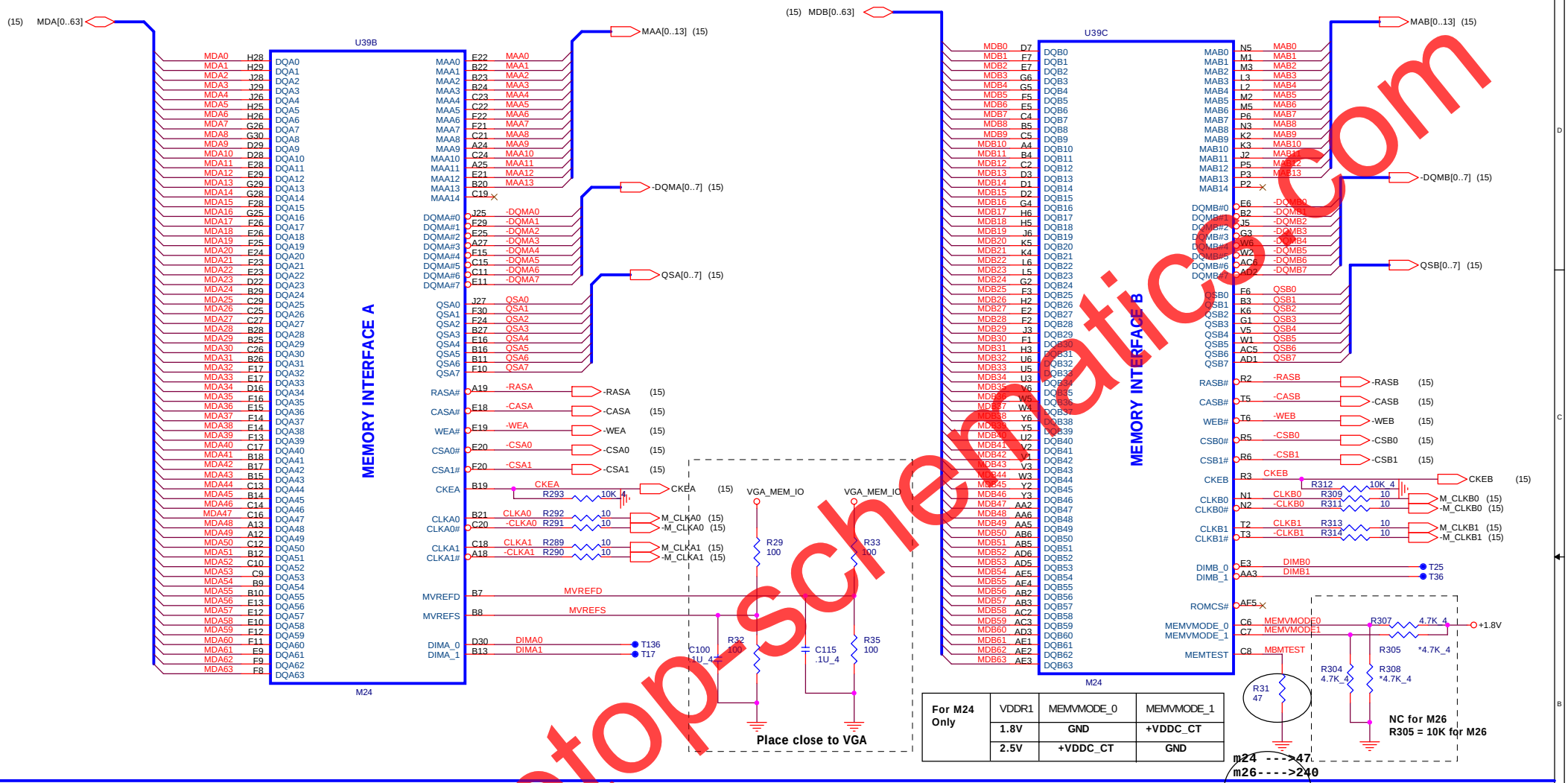








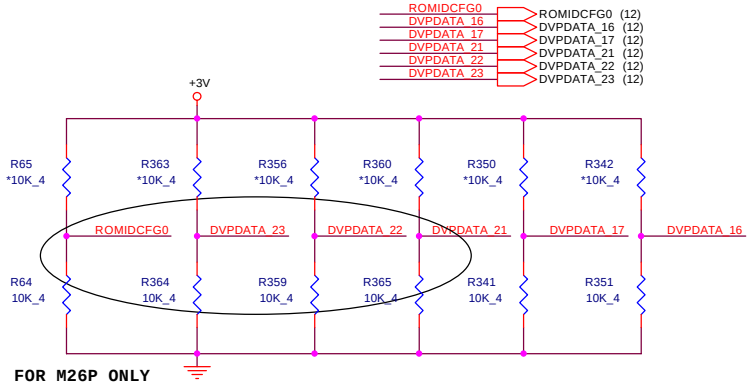




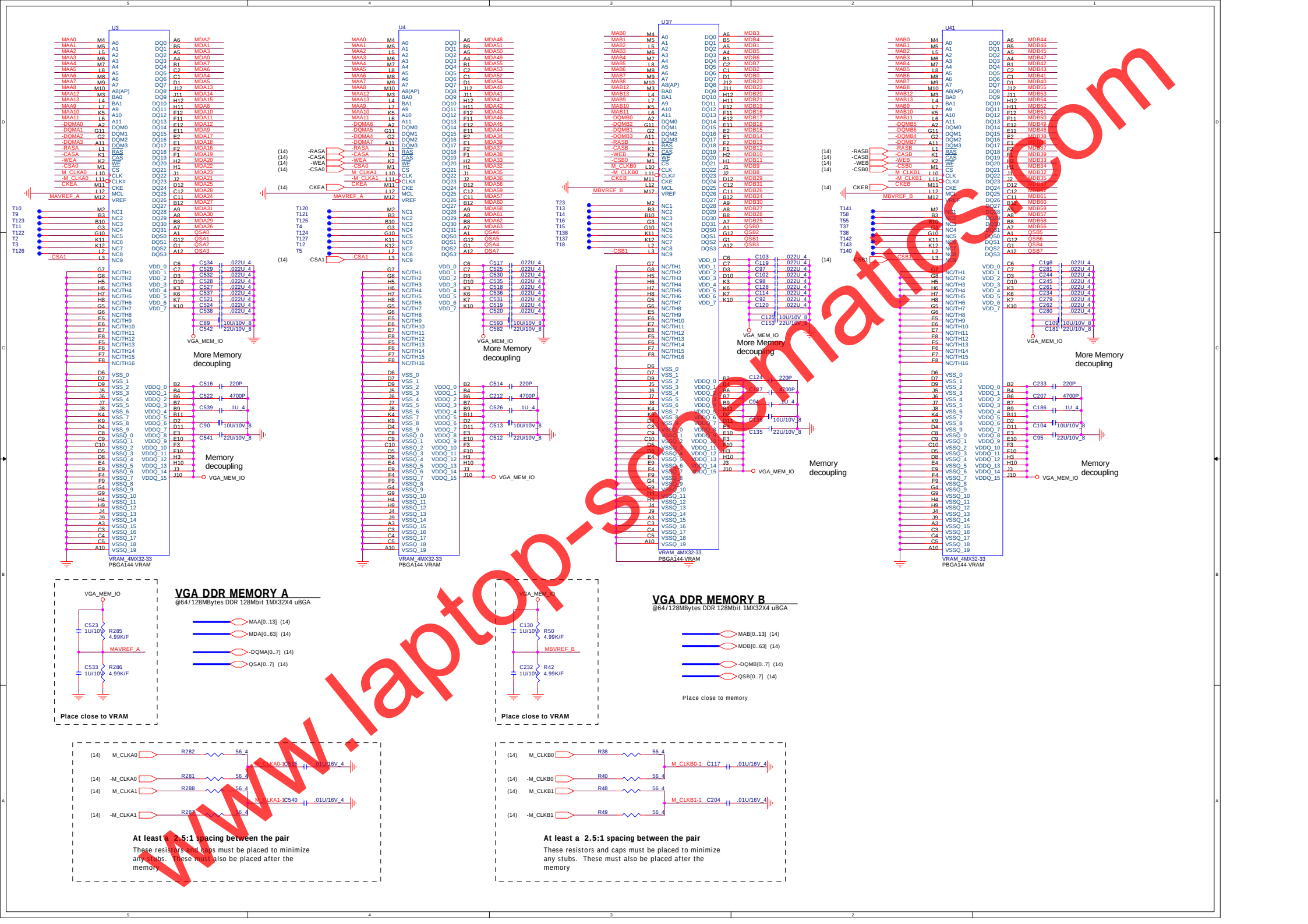
For M24 Only	VDDR1	MEMVMODE_0	MEMVMODE_1
	1.8V	GND	+VDDC_CT
	2.5V	+VDDC_CT	GND

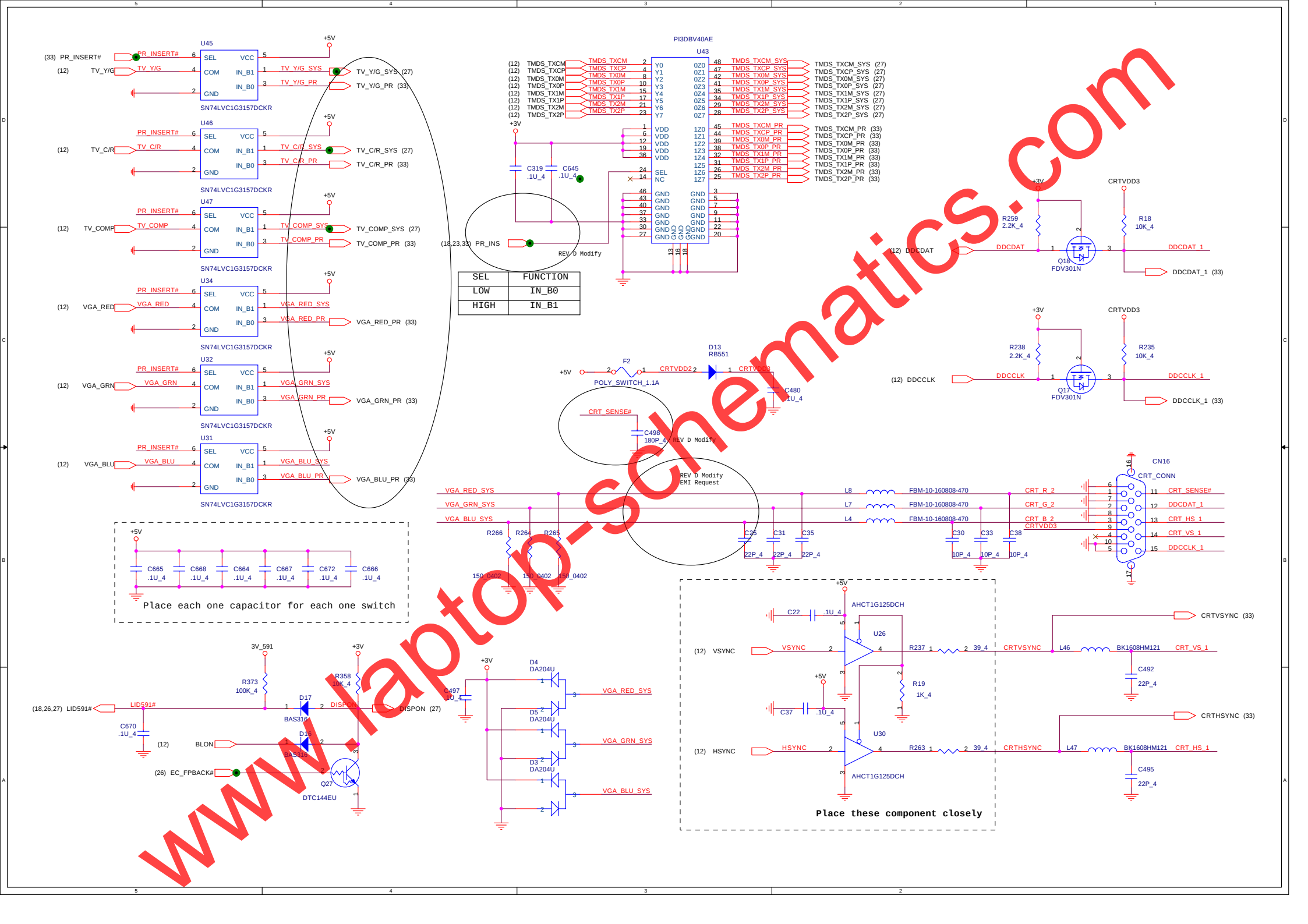
STRAPS PIN

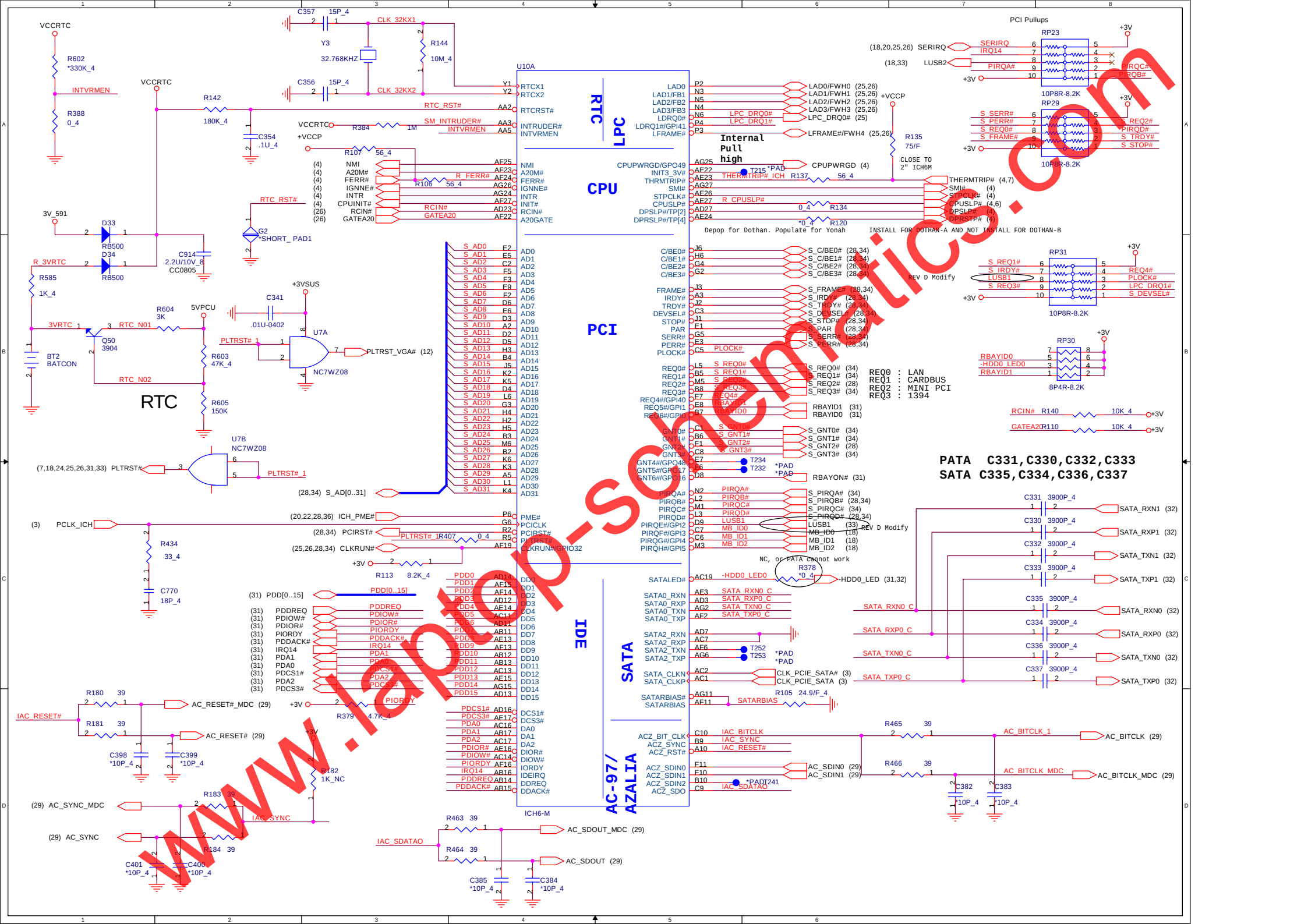
GPIO(9,13:11) INT P/D	ROMIDCFG **0x0x: No ROM, CHG_ID=0** 0x1x: No Rom, CHG_ID=1 1000: Parallel ROM, Chip ID'S from ROM 1000: Parallel ROM, Chip ID'S from ROM
DVPDATA_21~23 MEM TYPE	DVPDATA_21: 0=4Mx32 1=8Mx32 DVPDATA_22: 0=128M 1=64M DVPDATA_23: 0=Hynix 1=Samsung

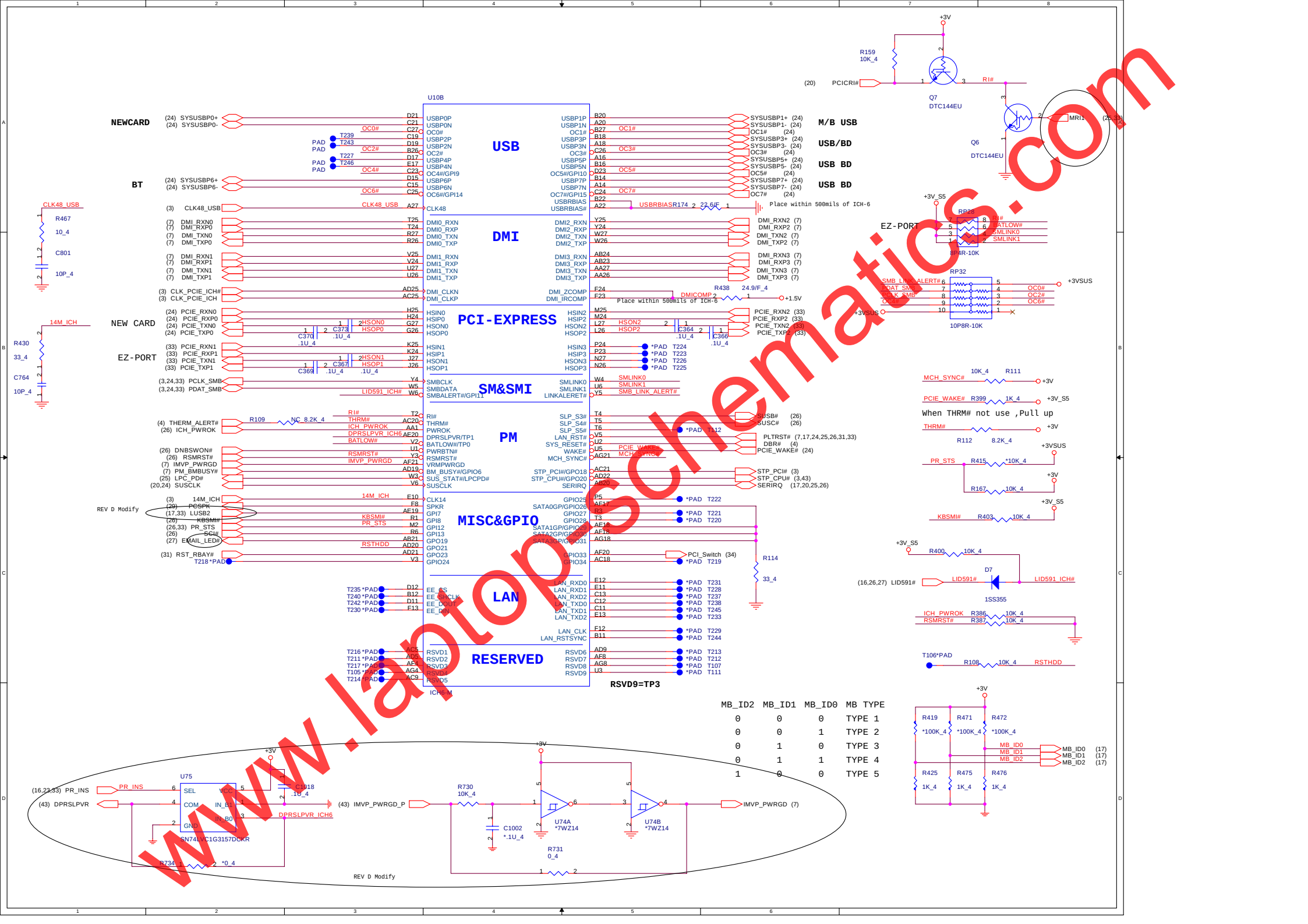


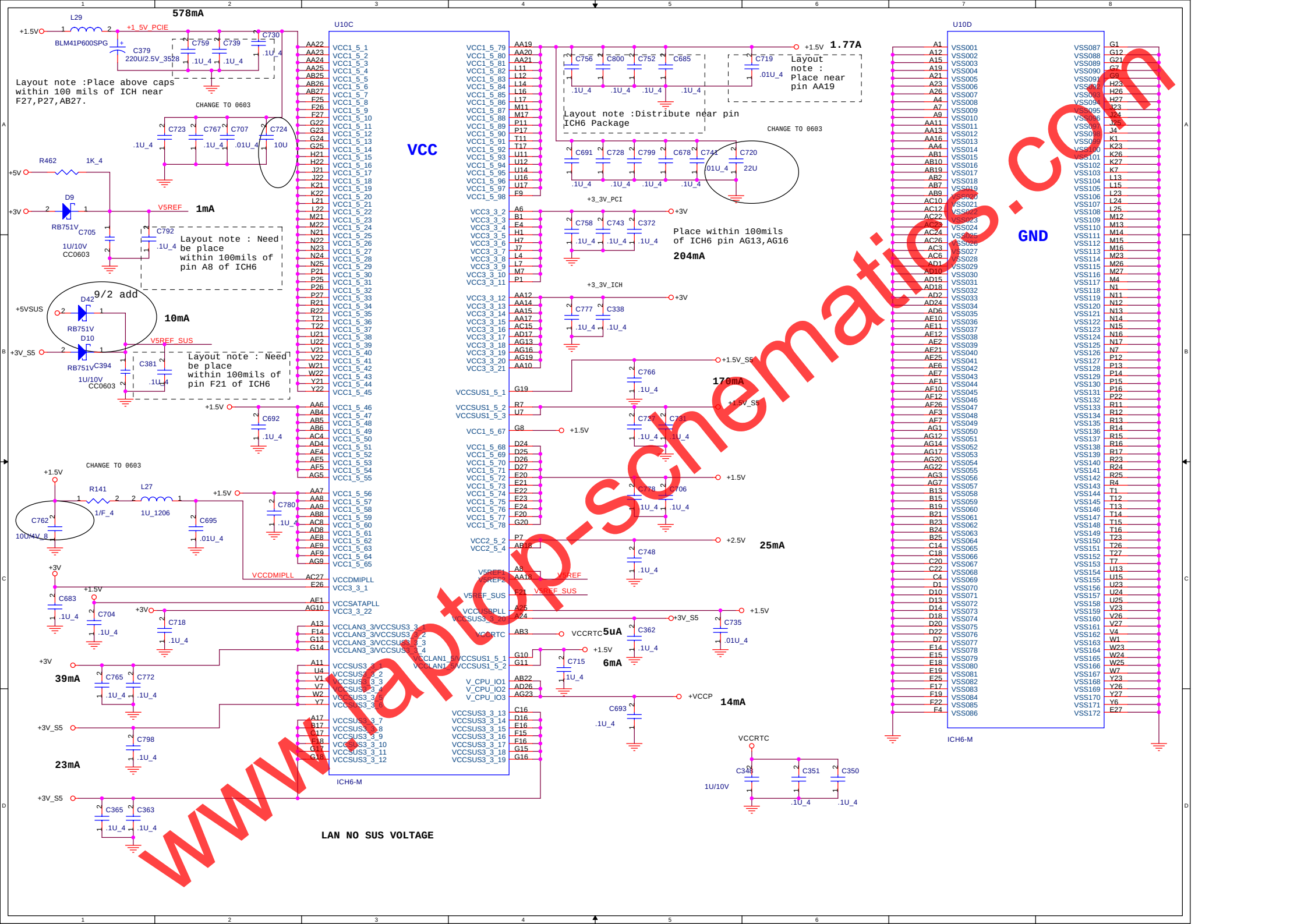
FOR M26P ONLY
0: 128M
1: 256M

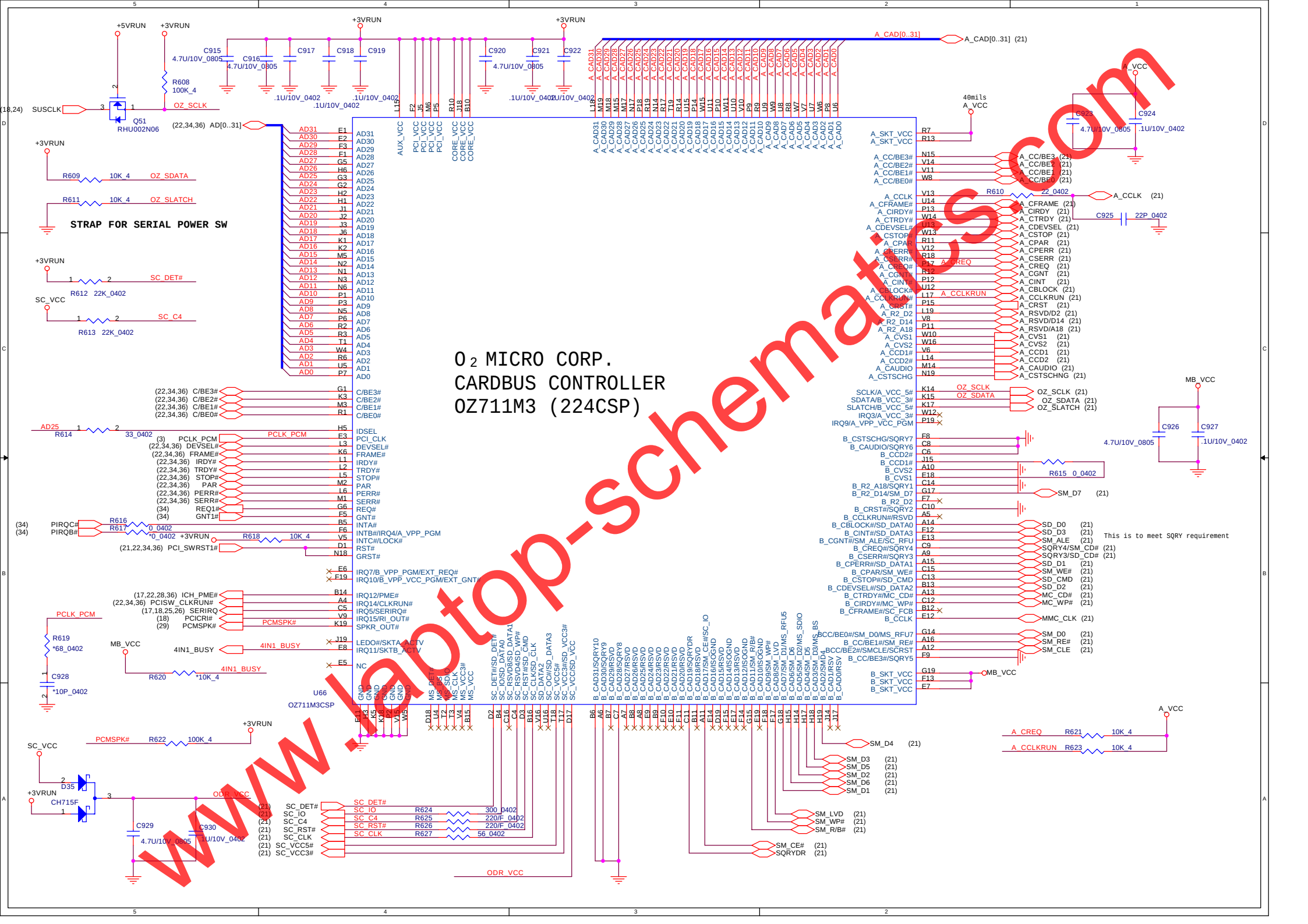


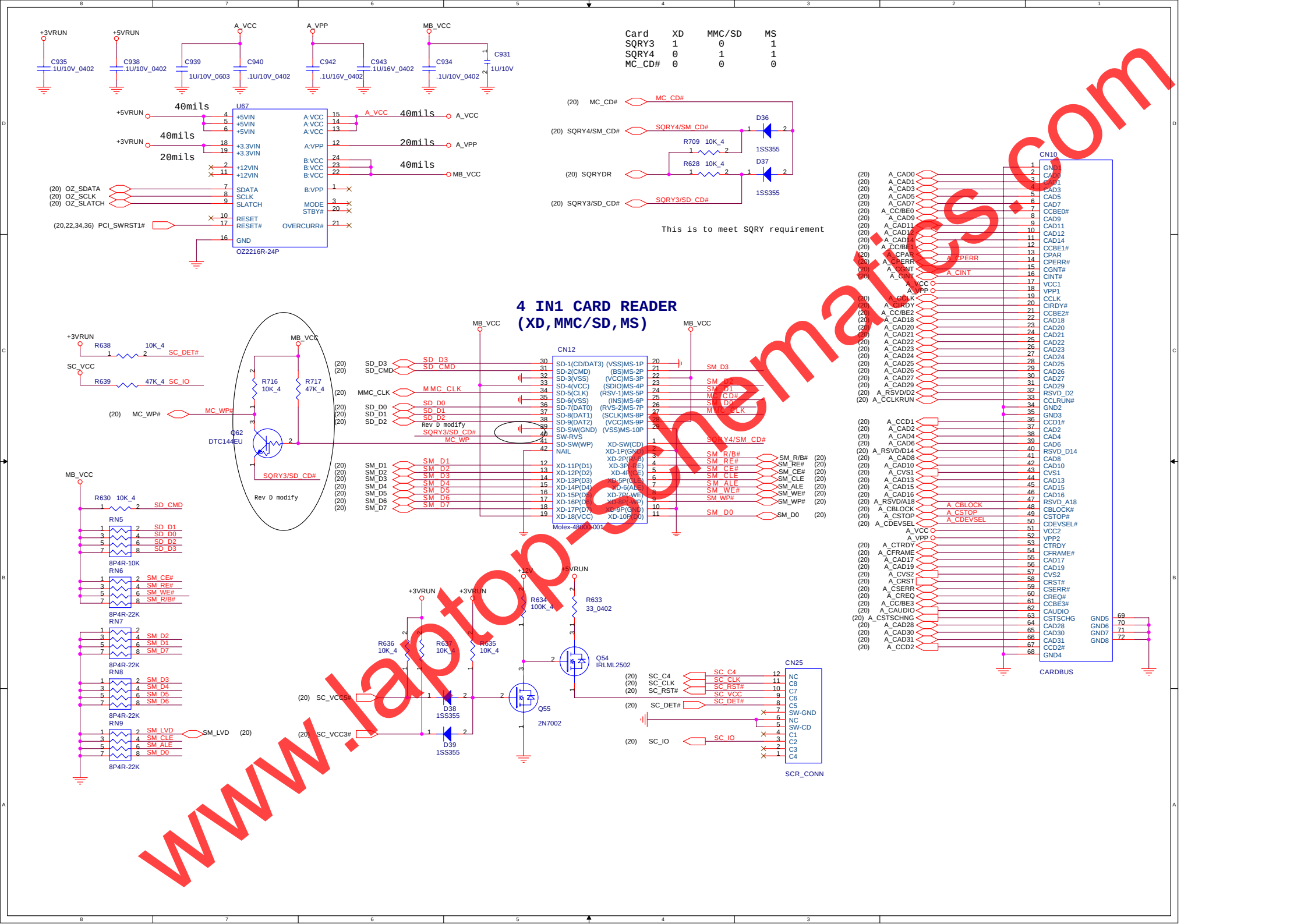


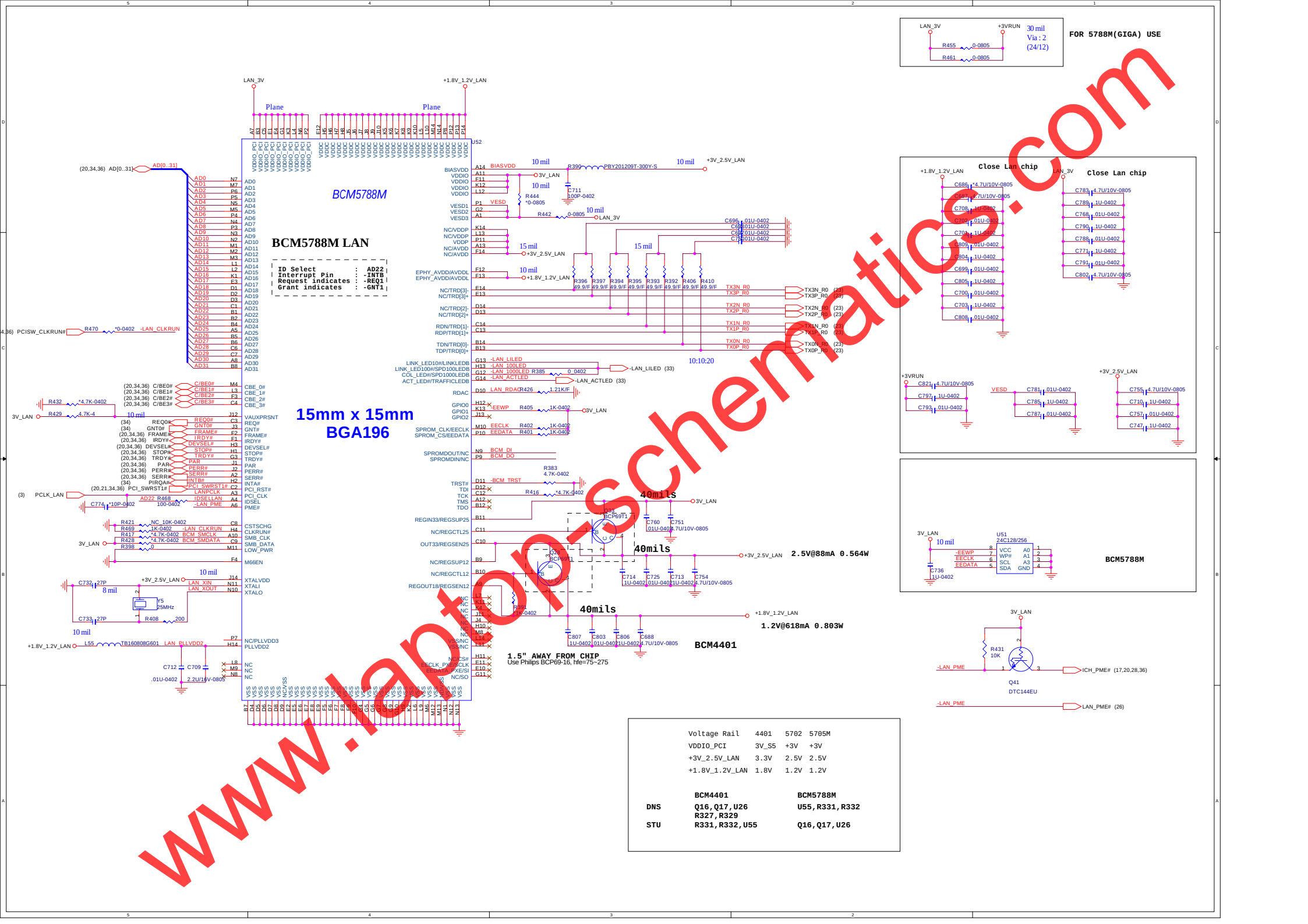

U10A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/ AZALIA
ICH6-M
RTC
Internal Pull high
Depop for Dothan. Populate for Yonah
INSTALL FOR DOTHAN-A AND NOT INSTALL FOR DOTHAN-B
REV D Modify
REQ0 : LAN
REQ1 : CARDBUS
REQ2 : MINI PCI
REQ3 : 1394
PATA C331,C330,C332,C333
SATA C335,C334,C336,C337
PCI Pullups
NC, or PATA cannot work
CLOSE TO 2" ICH6M
www.laptop-schematics.com


U10B
USB
DMI
PCI-EXPRESS
SM&SMI
PM
MISC&GPIO
LAN
RESERVED
ICH6-M
NEWCARD
BT
NEW CARD
EZ-PORT
M/B USB
USB/BD
USB BD
USB BD
USBRBIAS
Place within 500mils of ICH-6
DMICOMP
+1.5V
SMLINK0
SMLINK1
SMB_LINK_ALERT#
RSVD9=TP3
REV D Modify
When THRM# not use ,Pull up
MB_ID2 MB_ID1 MB_ID0 MB TYPE
0 0 0 TYPE 1
0 0 1 TYPE 2
0 1 0 TYPE 3
0 1 1 TYPE 4
1 0 0 TYPE 5
SN74LVC1G3157DCKR
U74A *7WZ14
U74B *7WZ14
Q7 DTC144EU
Q6 DTC144EU
10P8R-10K
8P4R-10K
1SS355
www.laptopschematics.com

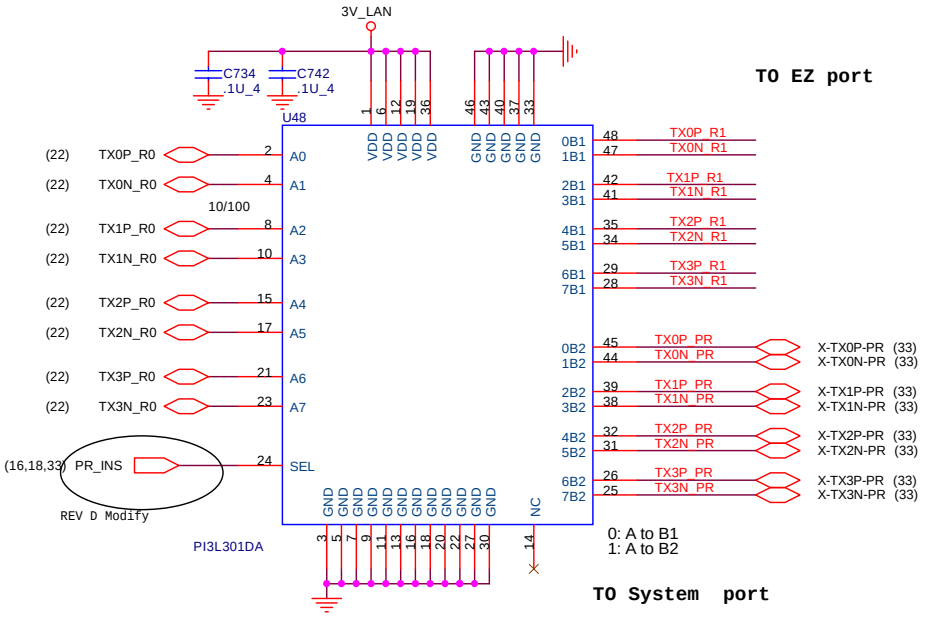



O2 MICRO CORP.
CARDBUS CONTROLLER
OZ711M3 (224CSP)
STRAP FOR SERIAL POWER SW
OZ711M3CSP
U66
Q51
RHU002N06
www.laptop-schematics.com


Card XD MMC/SD MS
SQRY3 1 0 1
SQRY4 0 1 1
MC_CD# 0 0 0
This is to meet SQRY requirement
4 IN1 CARD READER
(XD,MMC/SD,MS)
OZ2216R-24P
Molex-48000-001
CARDBUS
SCR_CONN
2N7002
IRLML2502
DTC144EU
1SS355
8P4R-10K
8P4R-22K
www.laptop-schematics.com



Lan Switch

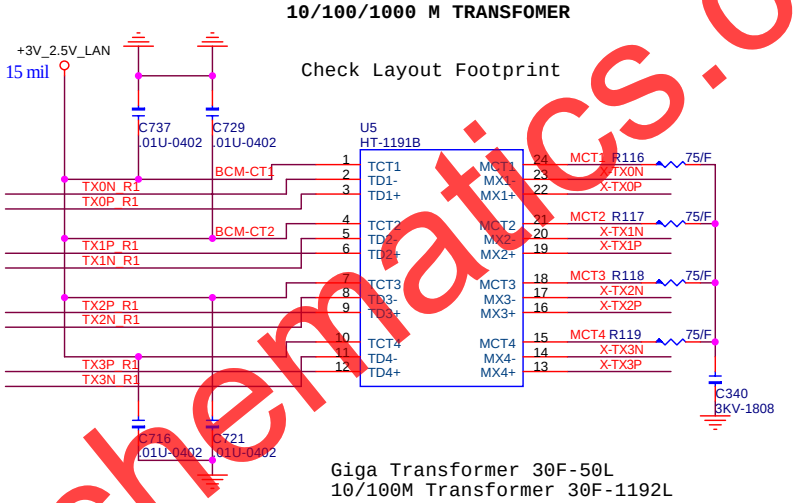


TO EZ port

TO System port

10/100/1000 M TRANSFOMER

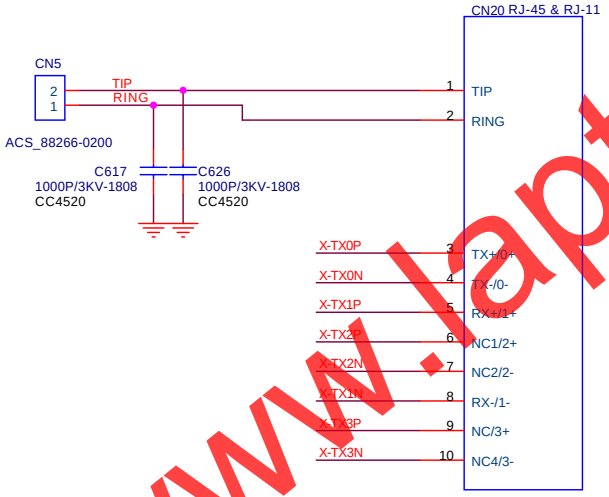
Check Layout Footprint

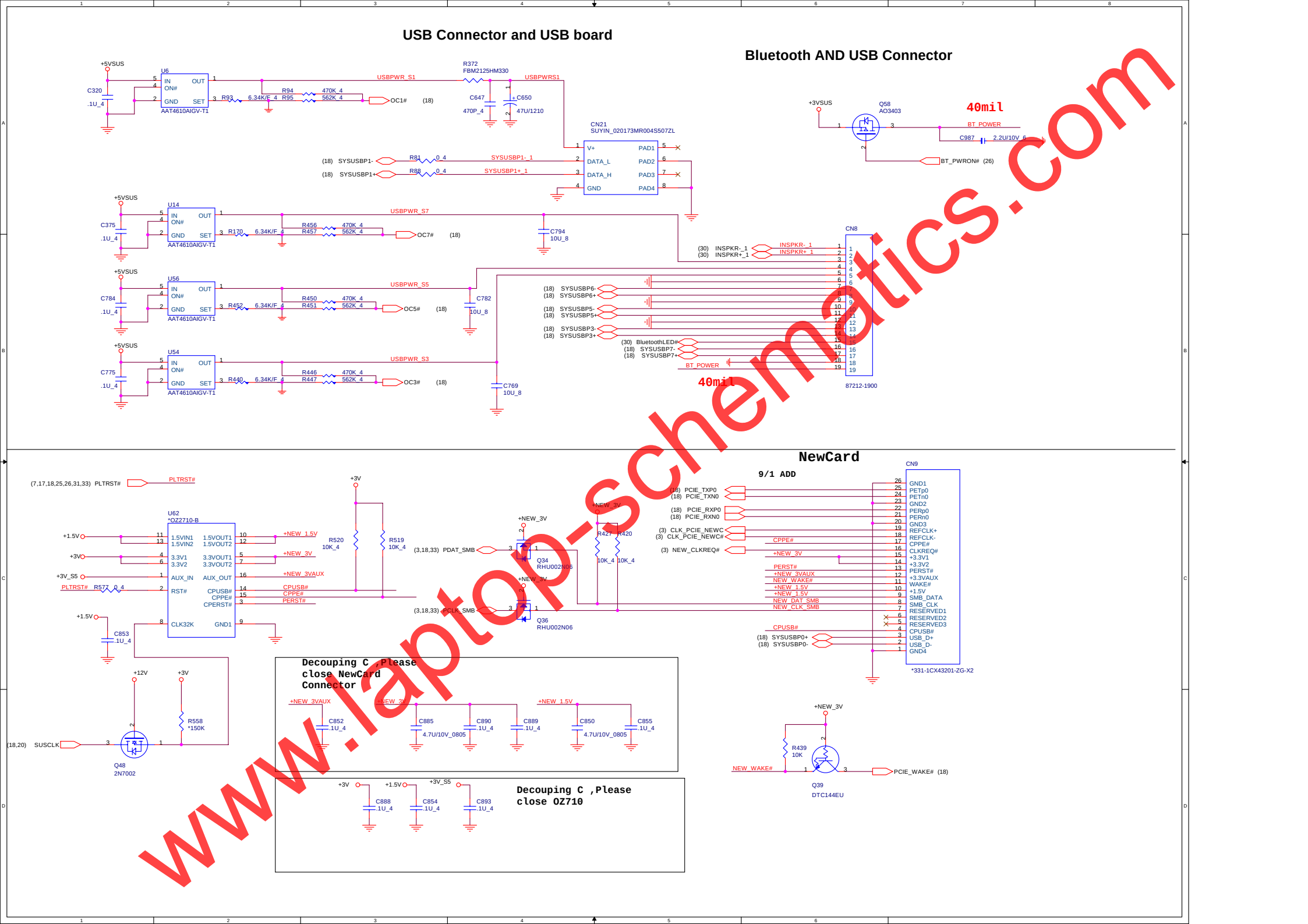


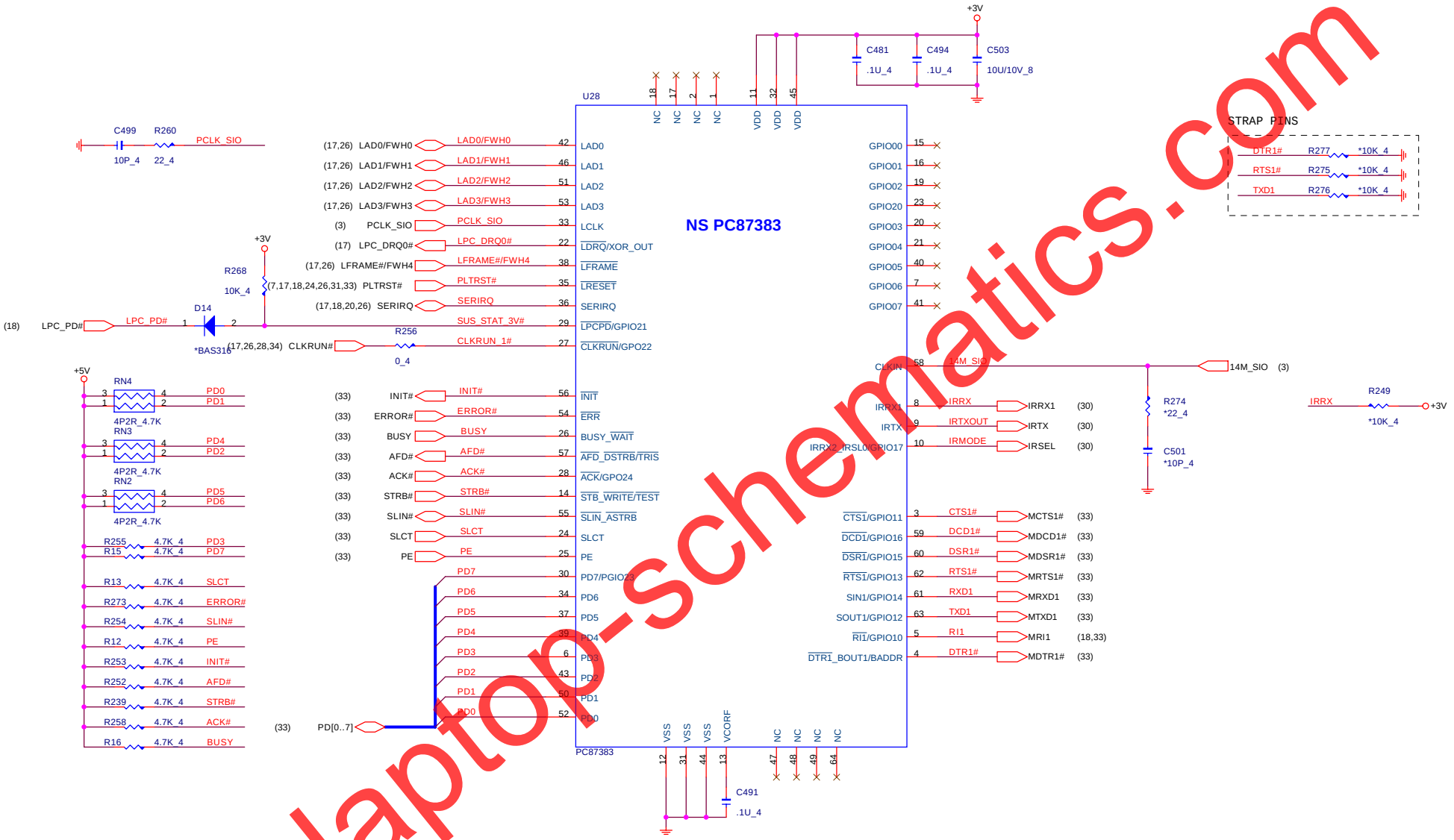
Giga Transformer 30F-50L
10/100M Transformer 30F-1192L

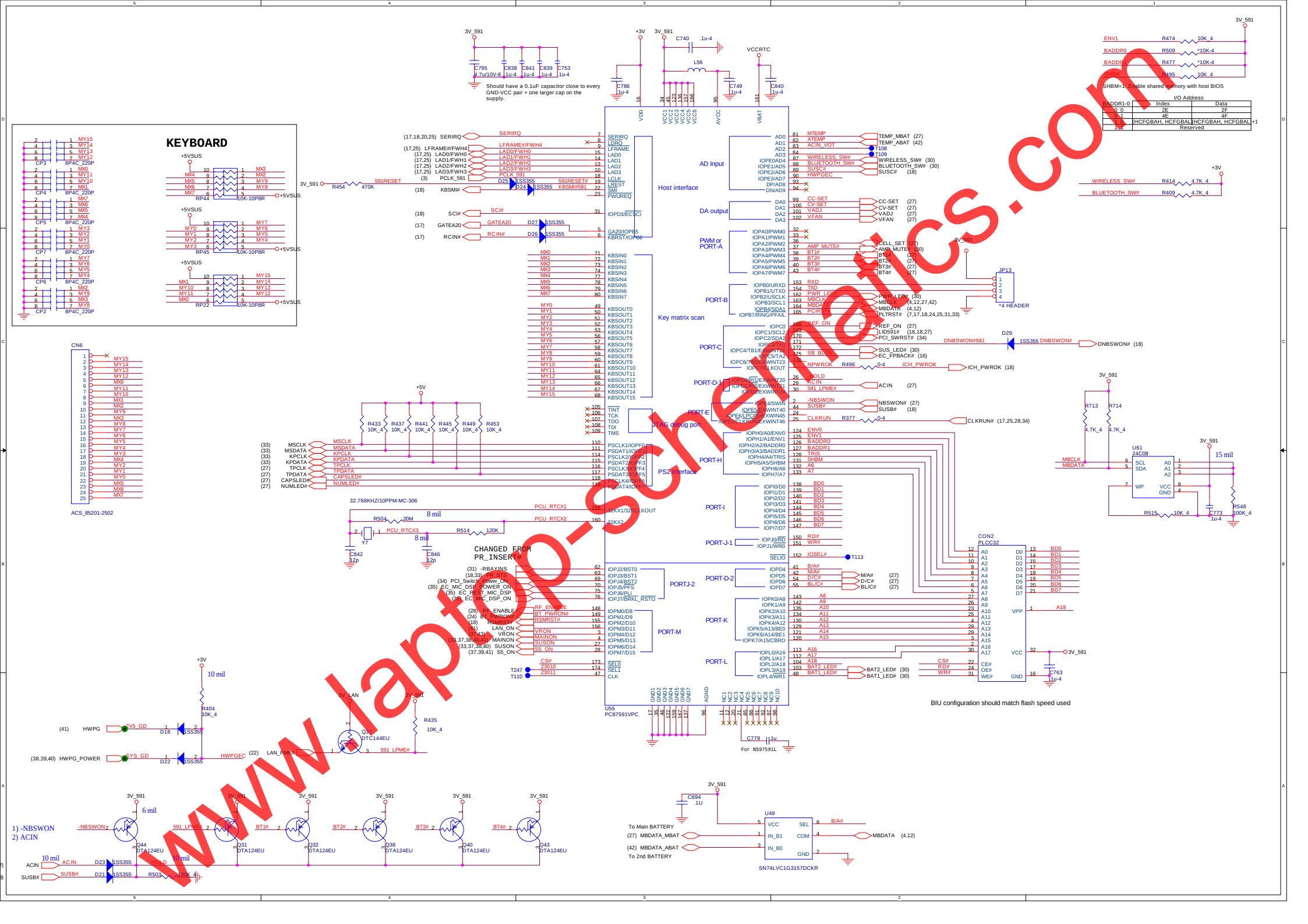
LAN and RJ11 Jack

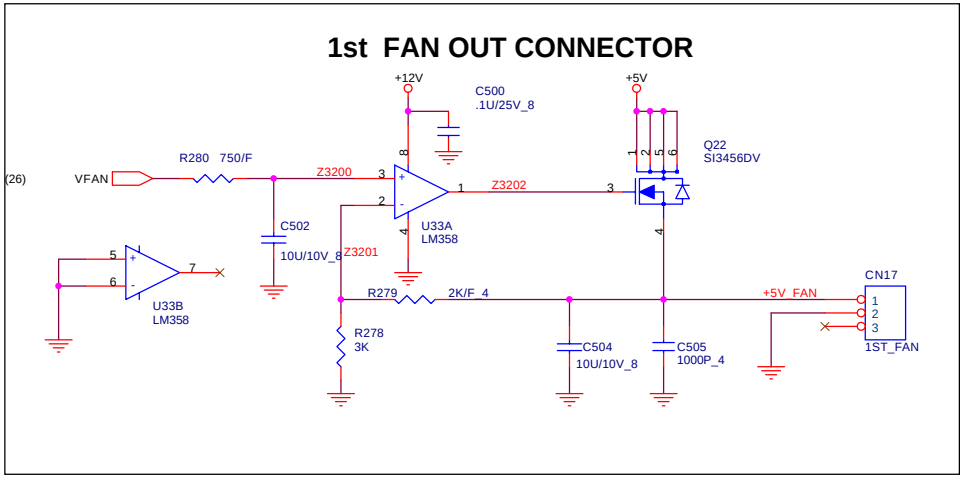
Check Layout Footprint

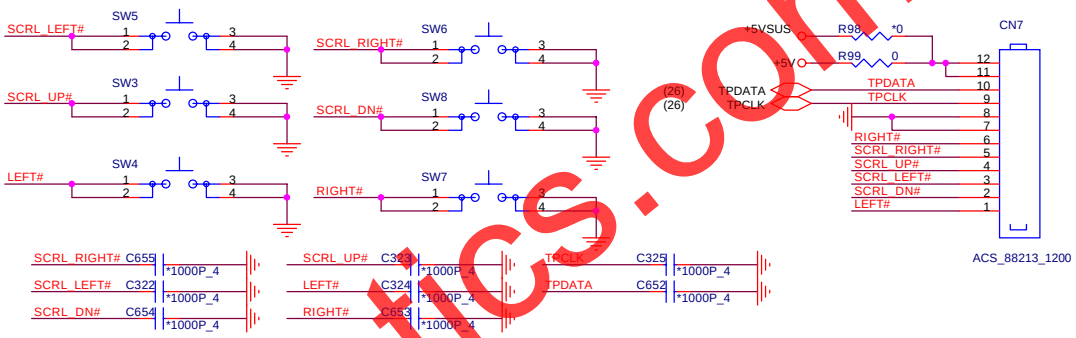


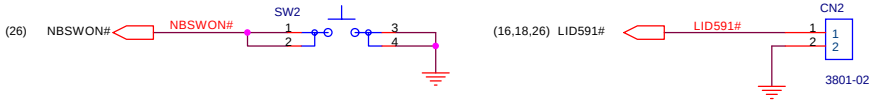

USB Connector and USB board
Bluetooth AND USB Connector
NewCard
9/1 ADD
Decouping C ,Please close NewCard Connector
Decouping C ,Please close OZ710
U6
AAT4610AIGV-T1
U14
AAT4610AIGV-T1
U56
AAT4610AIGV-T1
U54
AAT4610AIGV-T1
U62
*OZ2710-B
CN21
SUYIN_020173MR004S507ZL
CN8
87212-1900
CN9
*331-1CX43201-ZG-X2
Q58
AO3403
Q34
RHU002N06
Q36
RHU002N06
Q48
2N7002
Q39
DTC144EU
40mil
40mil
USBPWR_S1
USBPWR_S7
USBPWR_S5
USBPWR_S3
USBPWRS1
BT_POWER
BT_PWRON#
PLTRST#
SUSCLK
PCIE_WAKE#
www.laptop-schematics.com

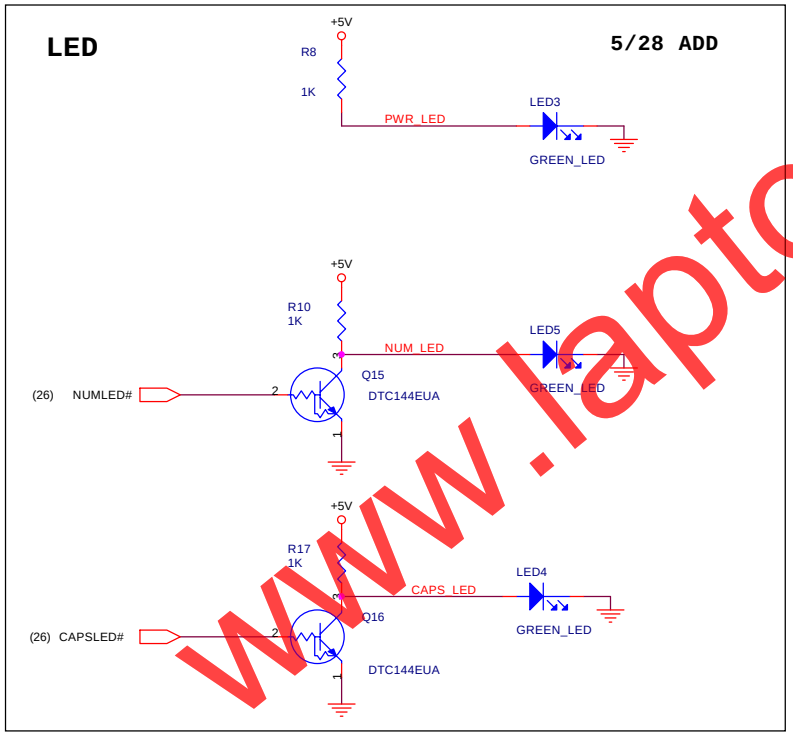


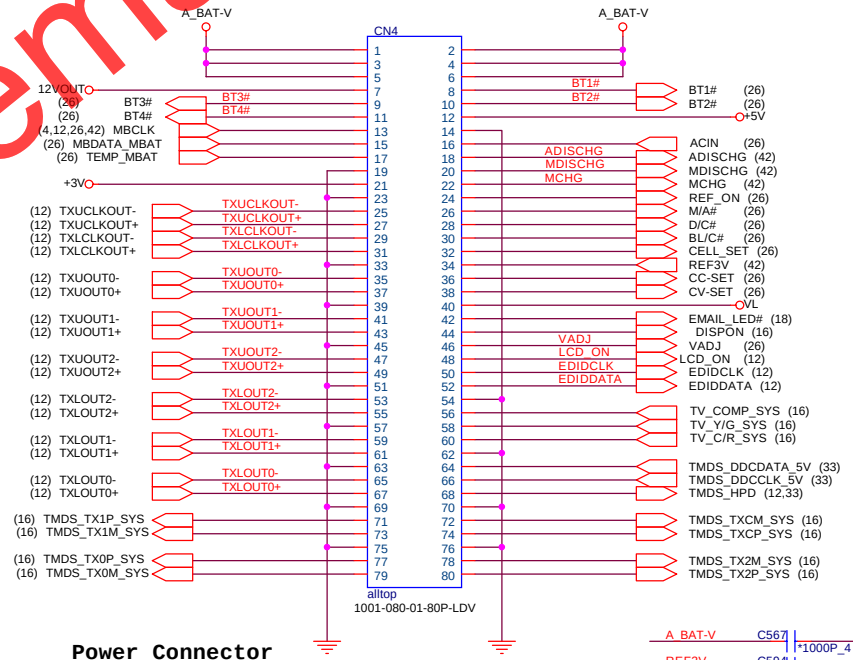


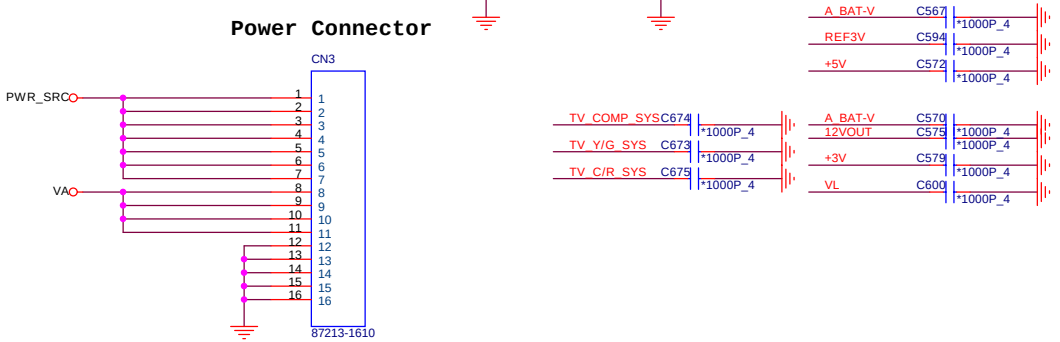


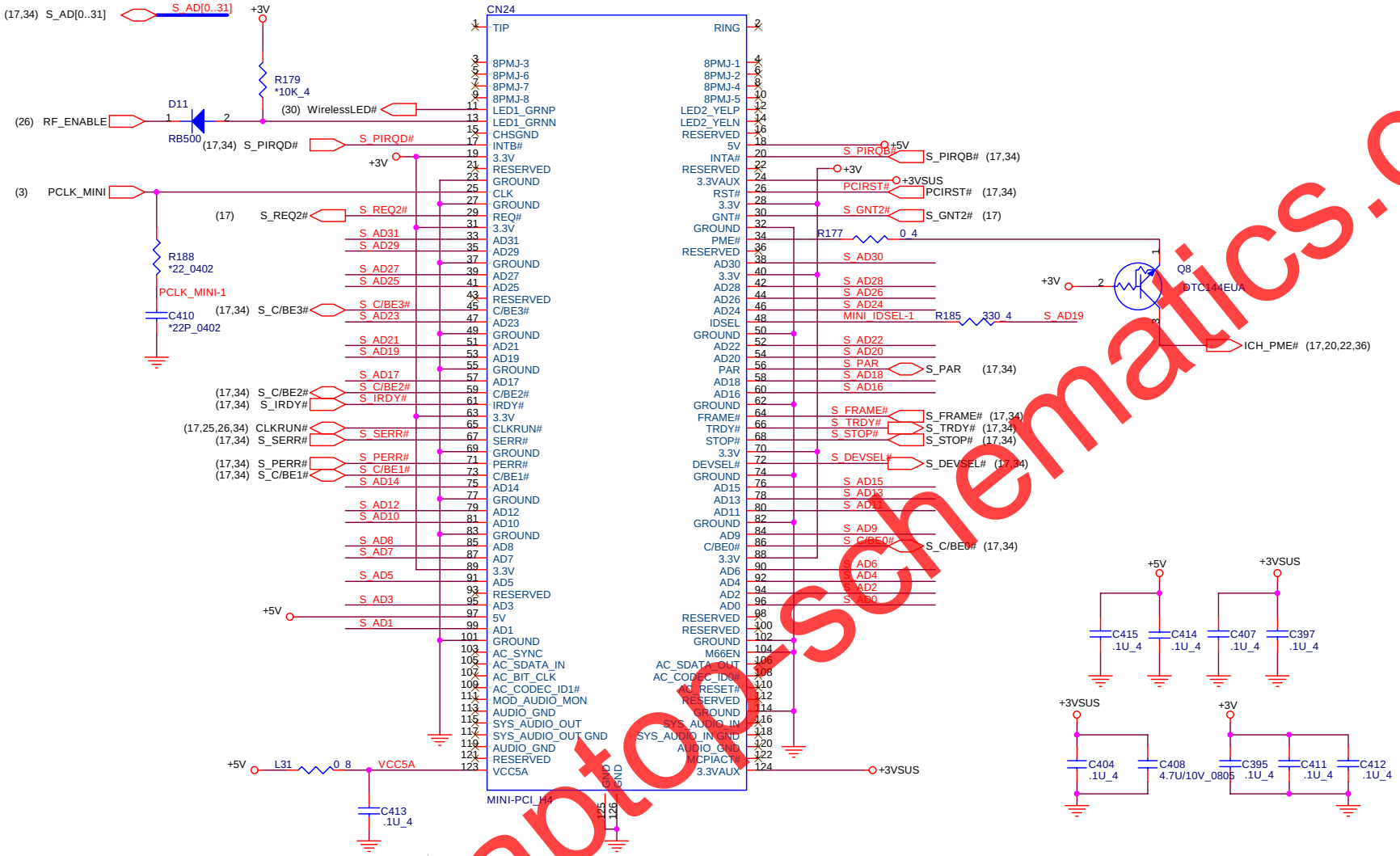


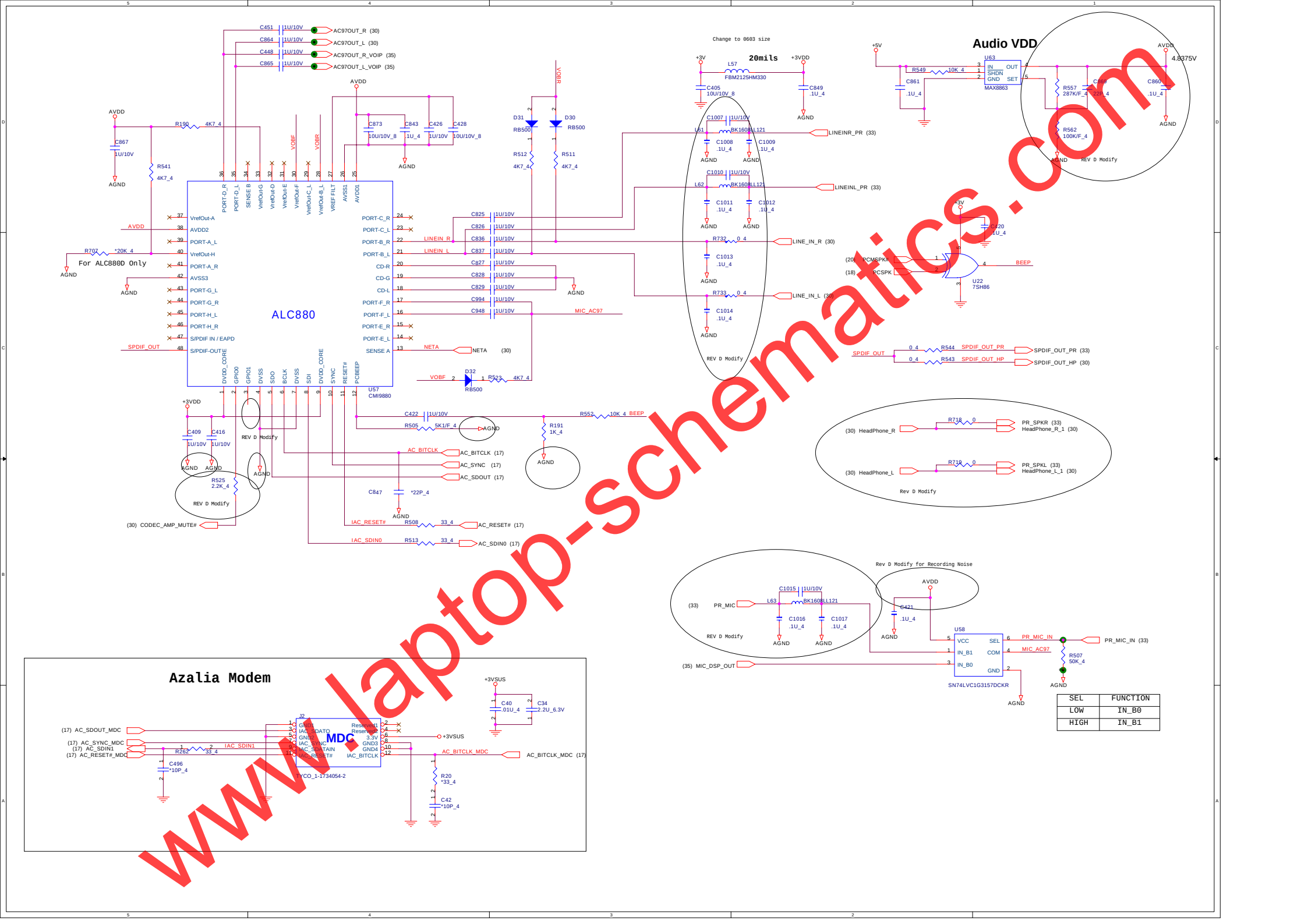




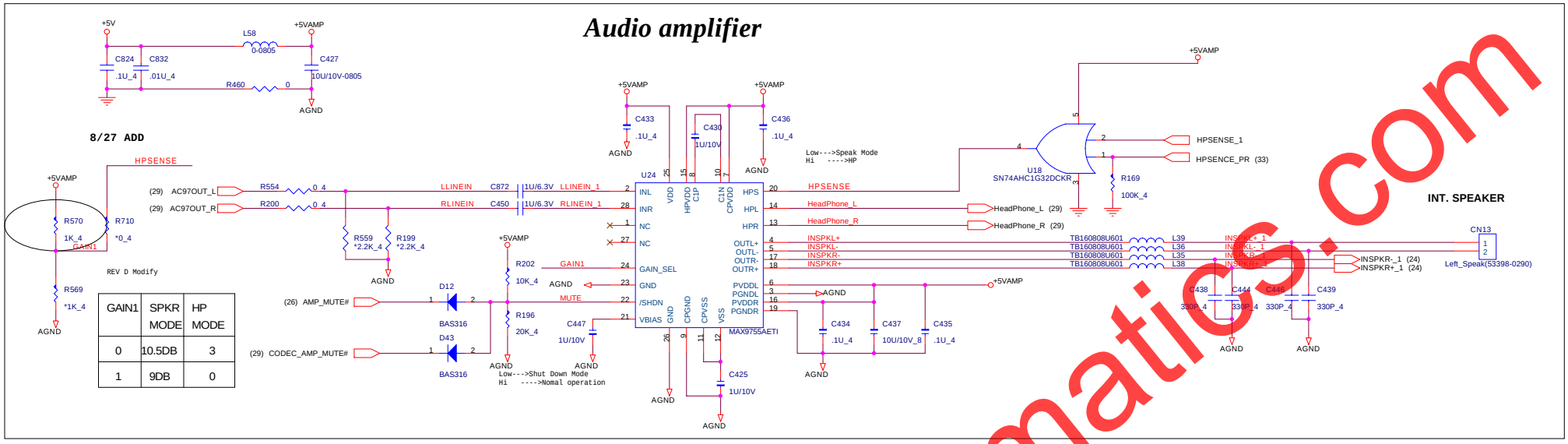




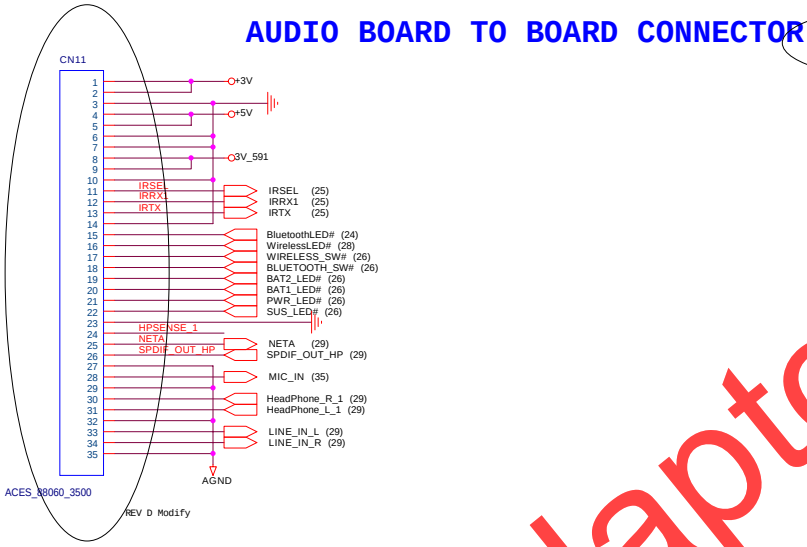


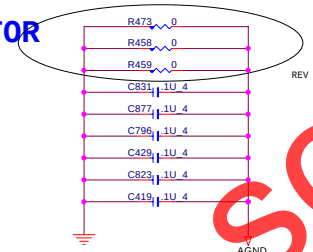

ALC880
U57
CMI9880
For ALC880D Only
REV D Modify
Change to 0603 size
20mils
Audio VDD
MAX8863
U22
7SH86
Azalia Modem
MDC
TYCO_1-1734054-2
Rev D Modify for Recording Noise
U58
SN74LVC1G3157DCKR
SEL | FUNCTION
LOW | IN_B0
HIGH | IN_B1
www.laptop-schematics.com

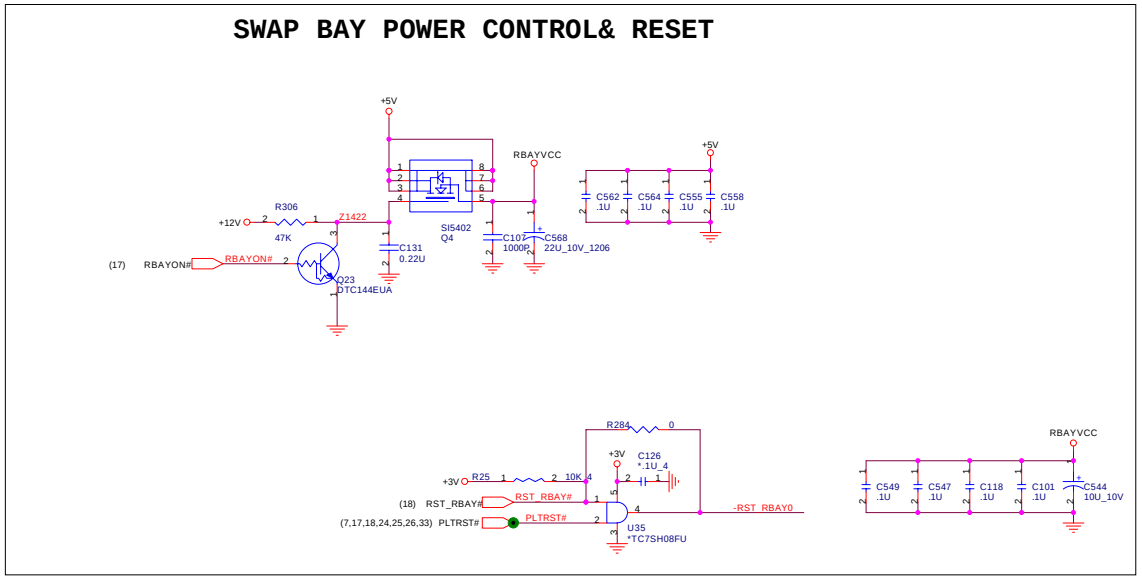
Audio amplifier

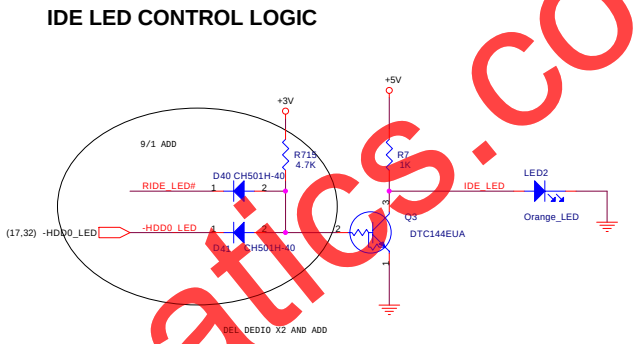


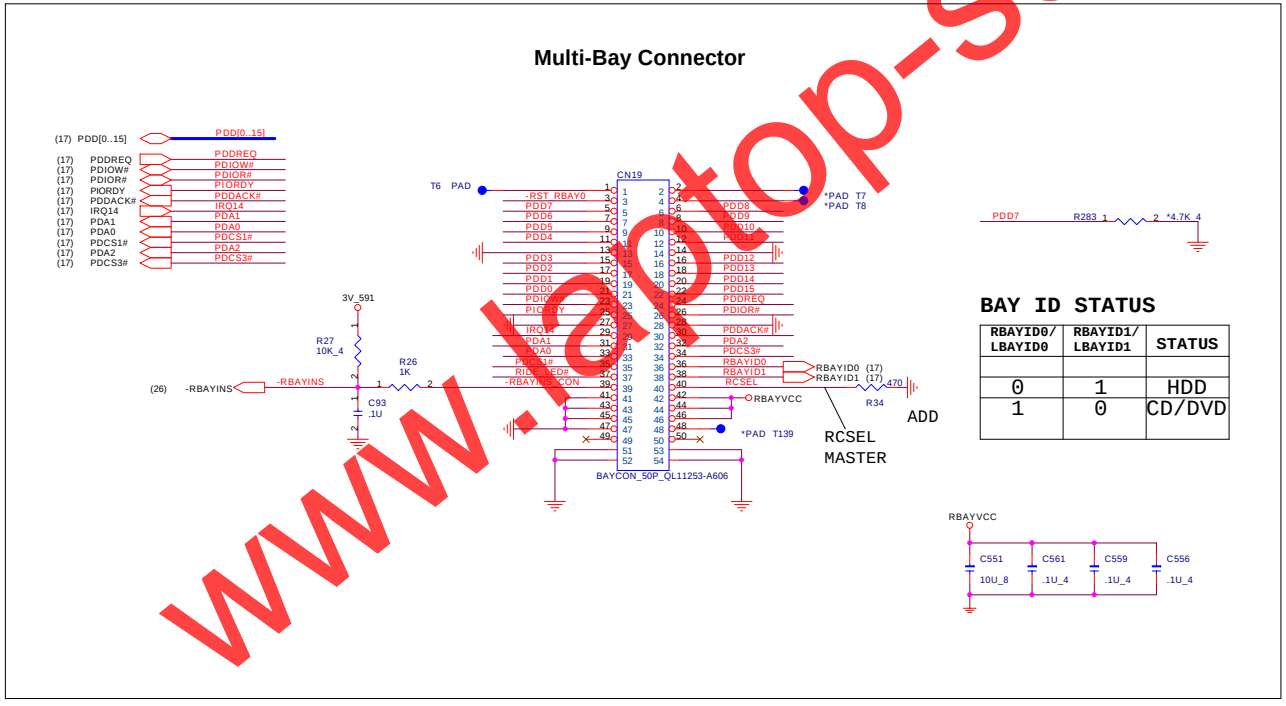
AUDIO BOARD TO BOARD CONNECTOR





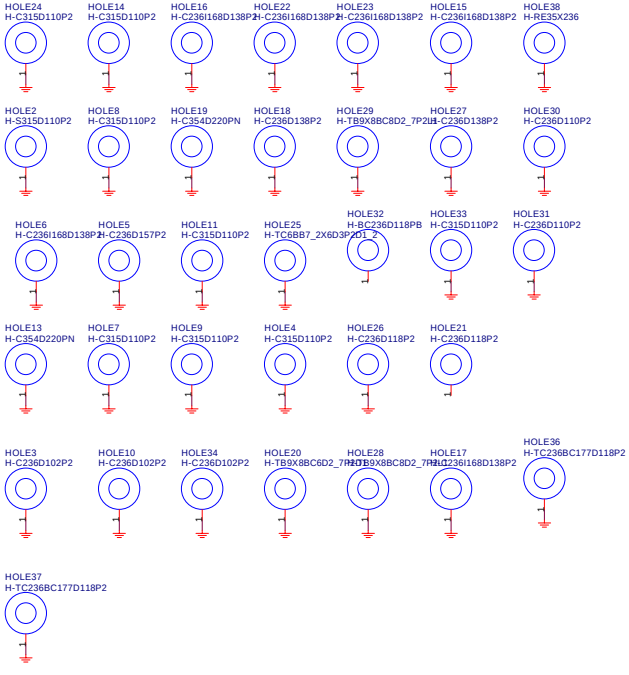


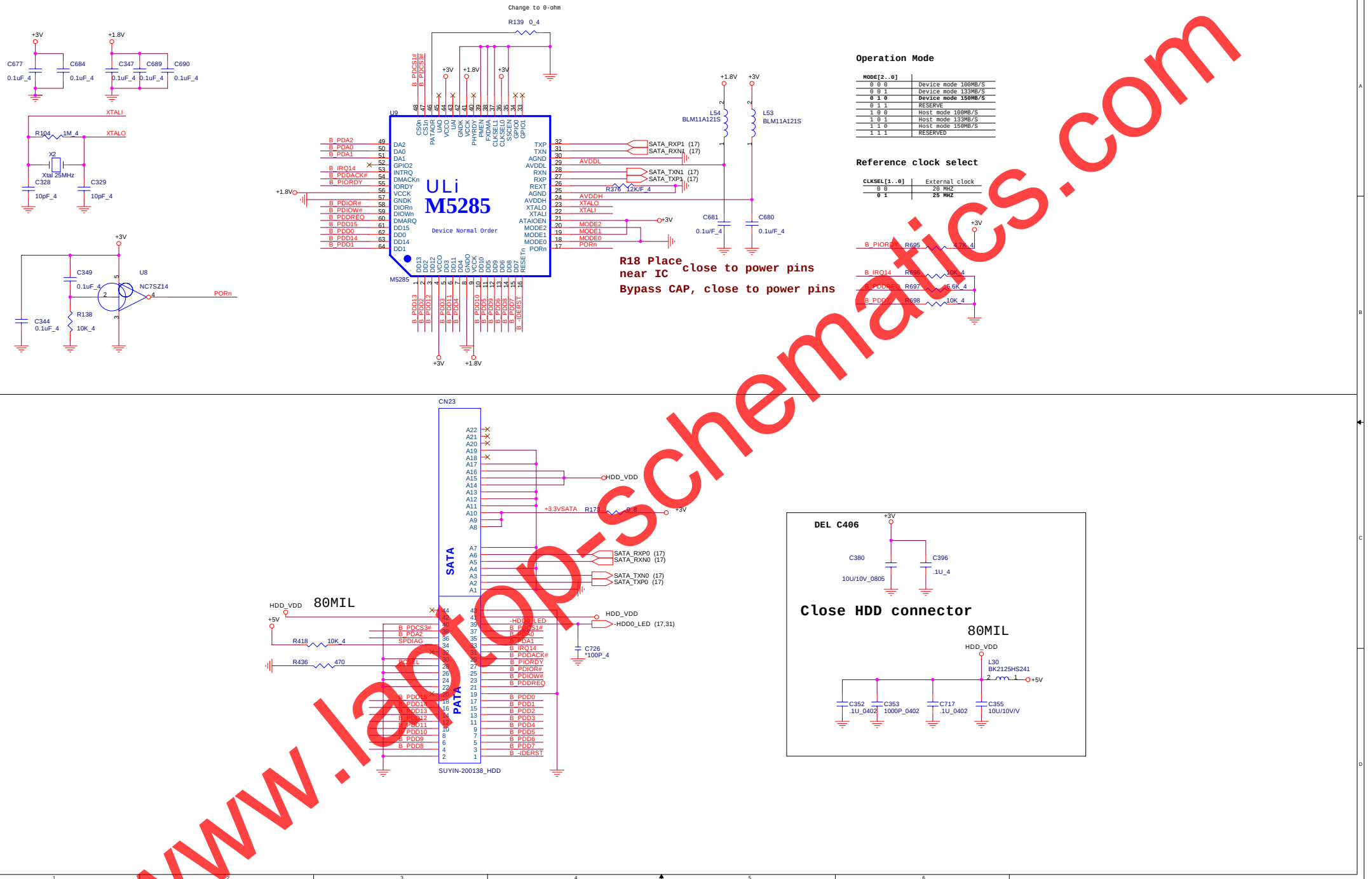


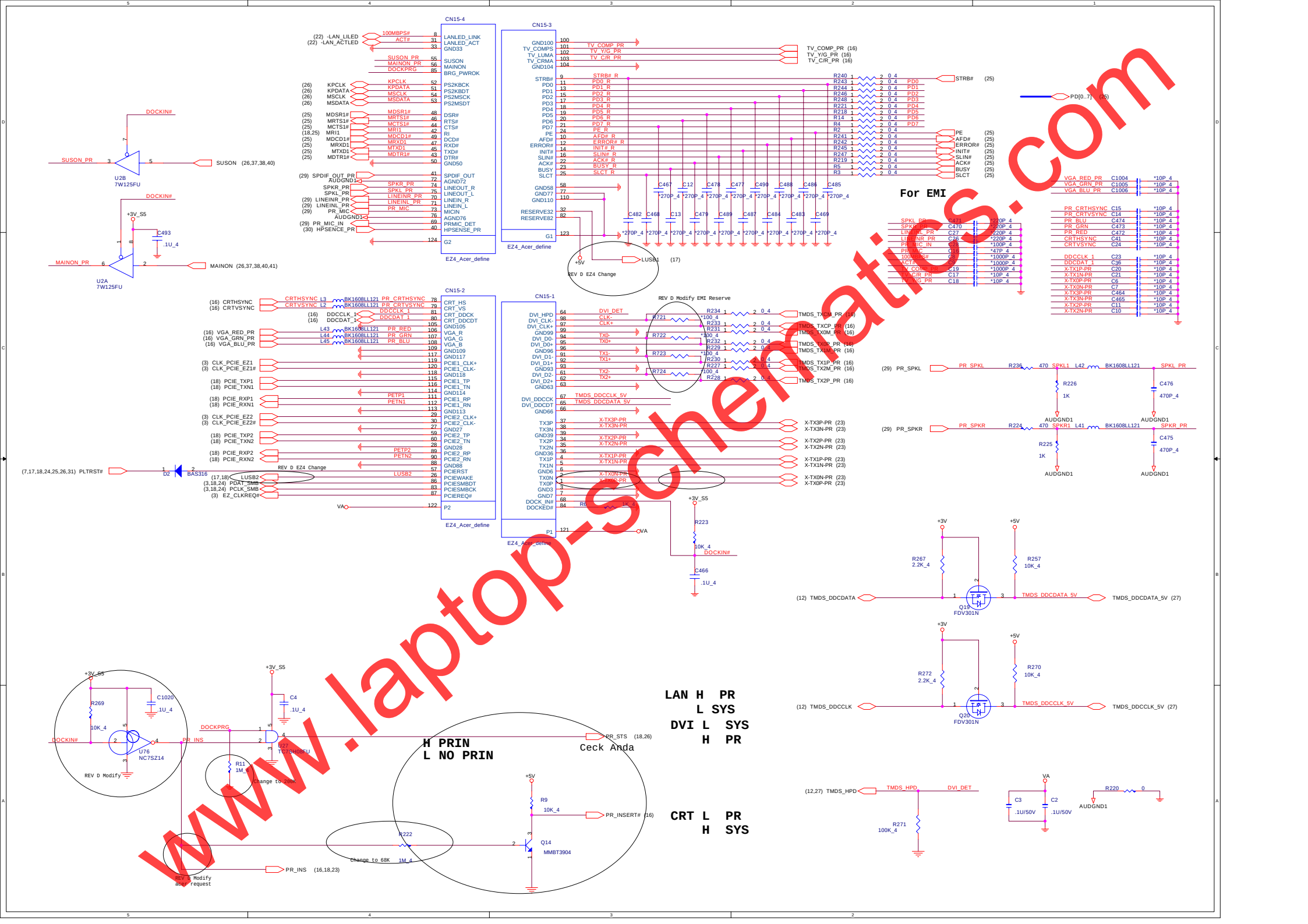


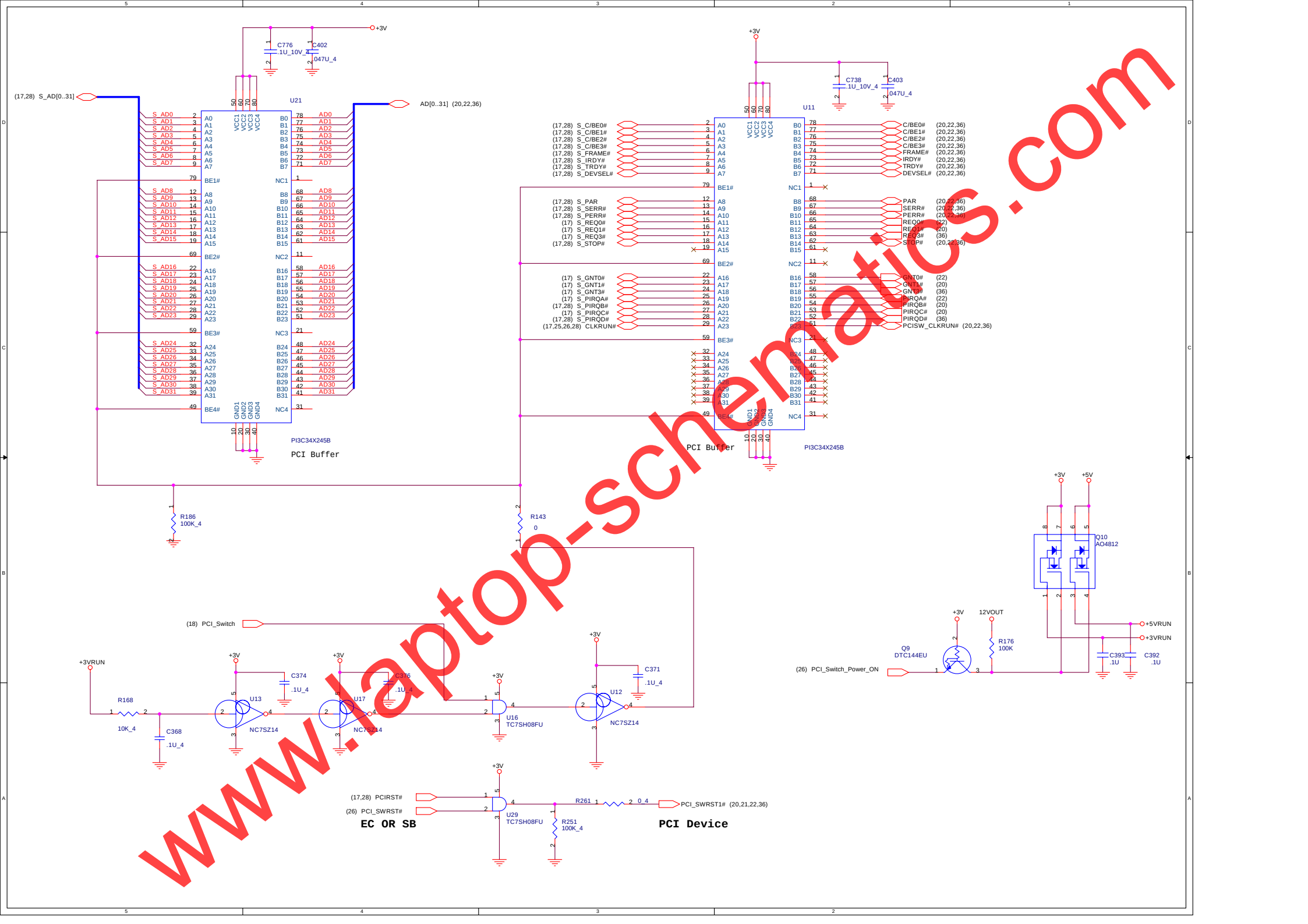
BAY ID STATUS

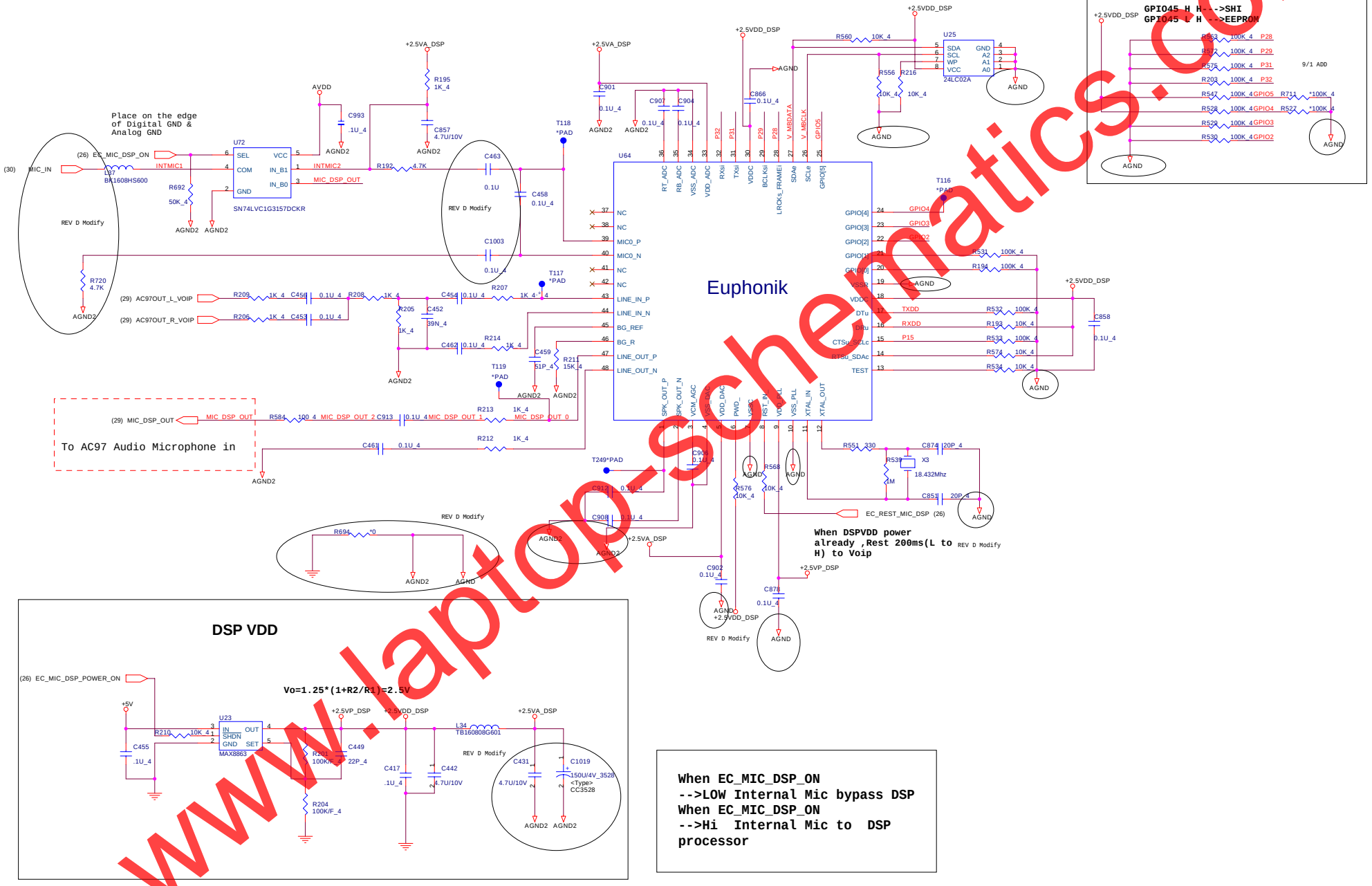
RBAYID0/ LBAYID0	RBAYID1/ LBAYID1	STATUS
0	1	HDD
1	0	CD/DVD



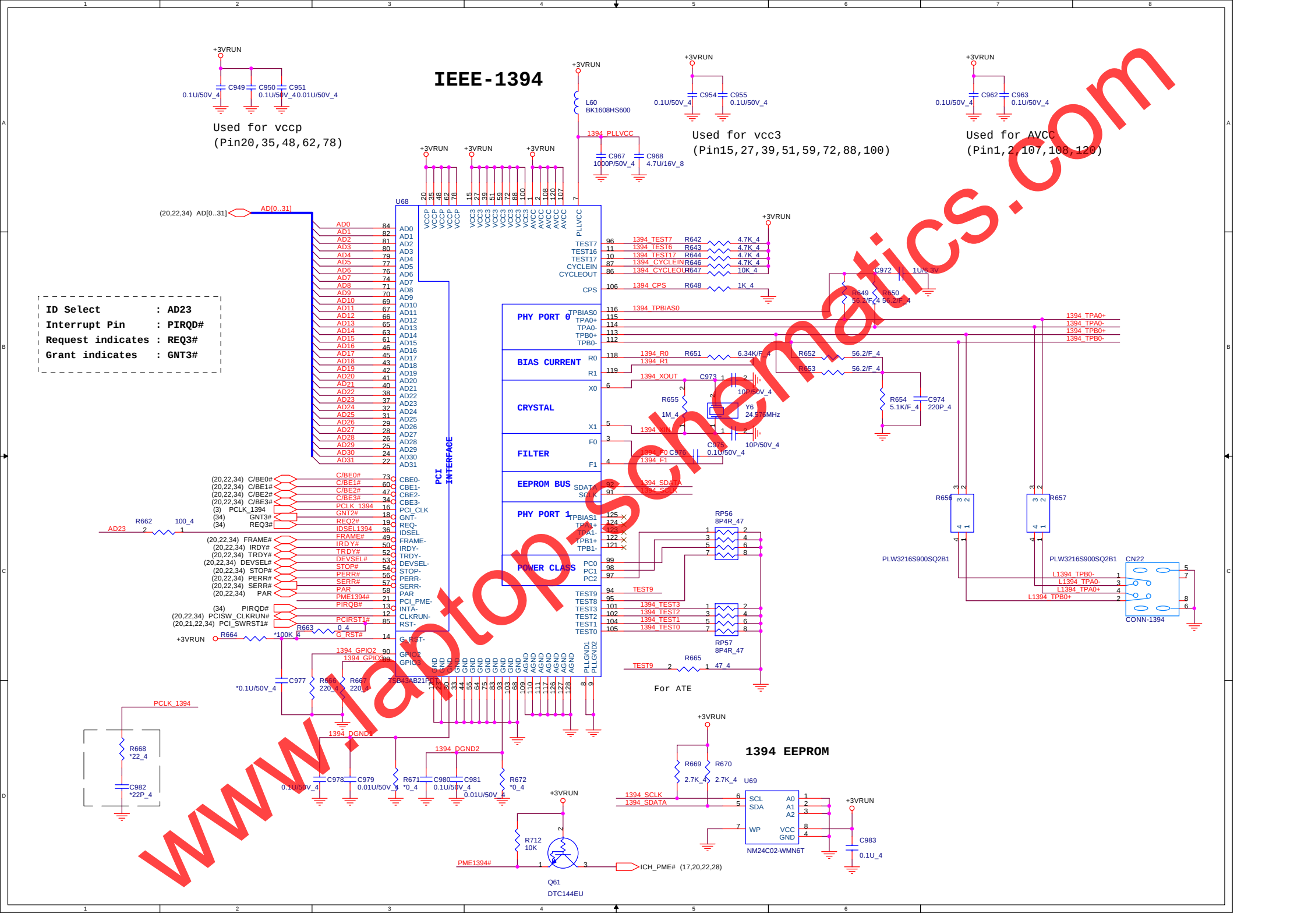

Change to 0-ohm
R139 0_4
ULi
M5285
Device Normal Order
M5285
Operation Mode
MODE[2..0]
0 0 0 Device mode 100MB/S
0 0 1 Device mode 133MB/S
0 1 0 Device mode 150MB/S
0 1 1 RESERVE
1 0 0 Host mode 100MB/S
1 0 1 Host mode 133MB/S
1 1 0 Host mode 150MB/S
1 1 1 RESERVED
Reference clock select
CLKSEL[1..0] External clock
0 0 20 MHZ
0 1 25 MHZ
R18 Place close to power pins near IC
Bypass CAP, close to power pins
XTALI
XTALO
Xtal 25MHz
NC7SZ14
PORn
CN23
SATA
PATA
SUYIN-200138_HDD
80MIL
HDD_VDD
DEL C406
Close HDD connector
BK2125HS241
www.laptop-schematics.com

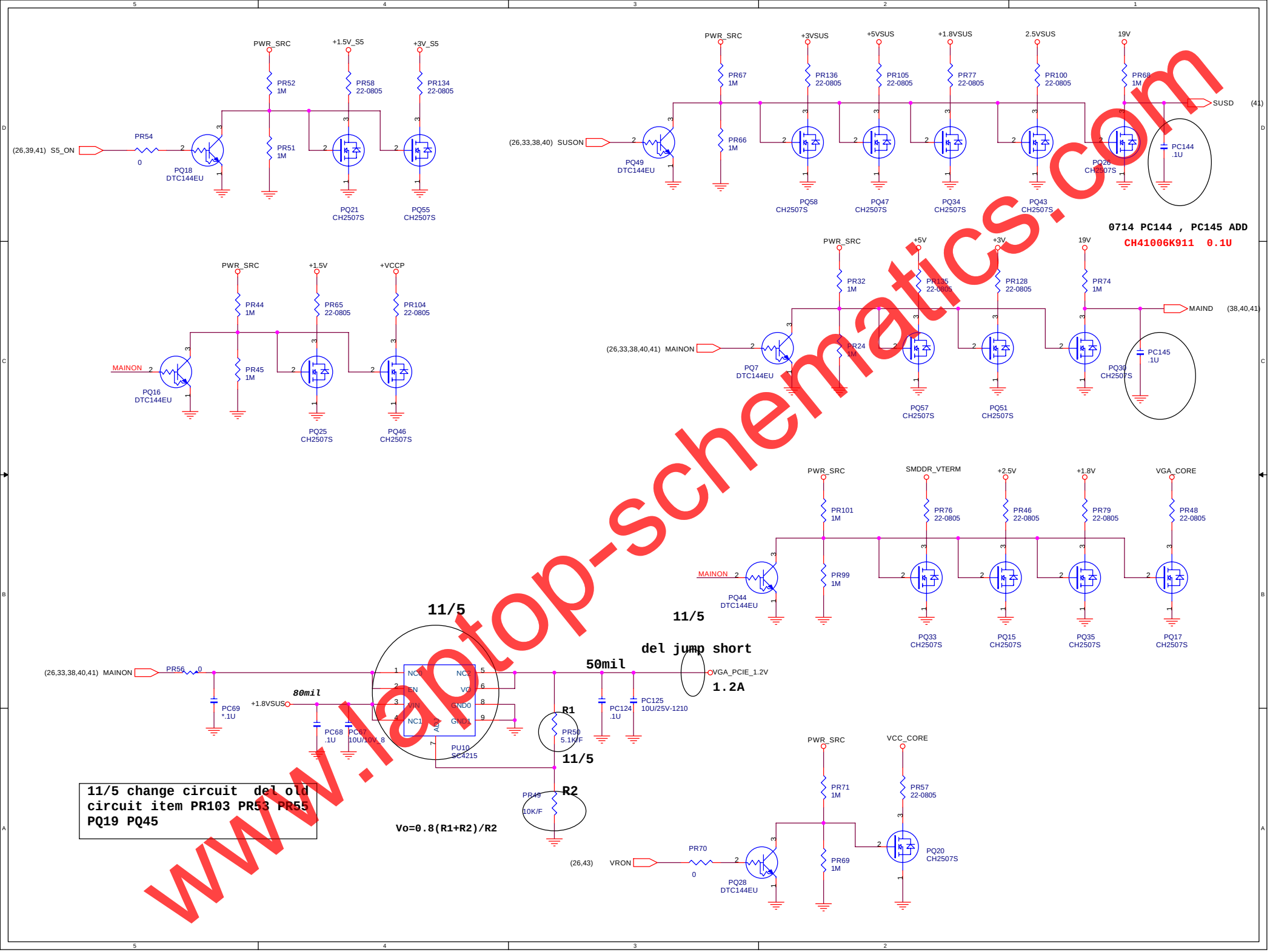

CN15-4
CN15-3
CN15-2
CN15-1
EZ4_Acer_define
For EMI
REV D Modify EMI Reserve
REV D EZ4 Change
H PRIN
L NO PRIN
LAN H PR
L SYS
DVI L SYS
H PR
CRT L PR
H SYS
Ceck Anda
www.laptop-schematics.com

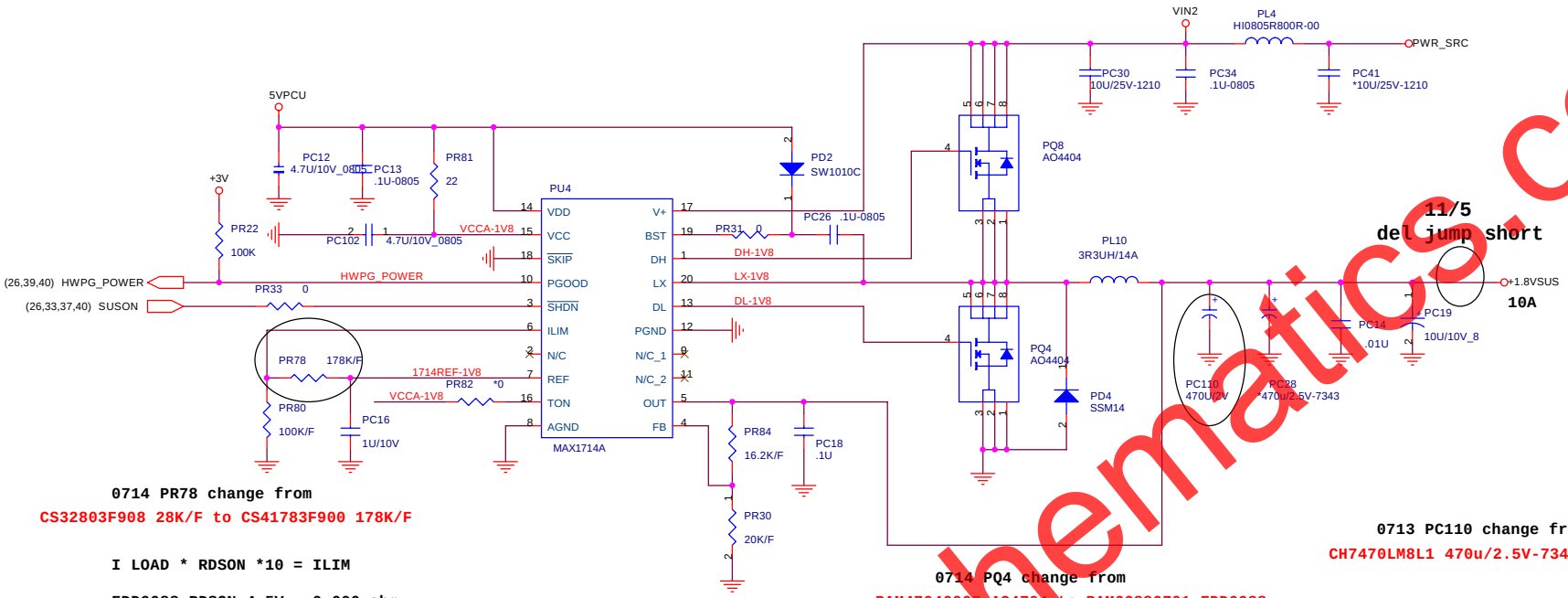




IEEE-1394







0714 PR78 change from
CS32803F908 28K/F to CS41783F900 178K/F

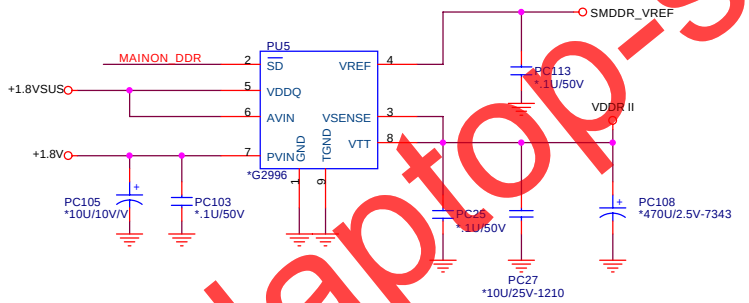
I LOAD * RDSON *10 = ILIM

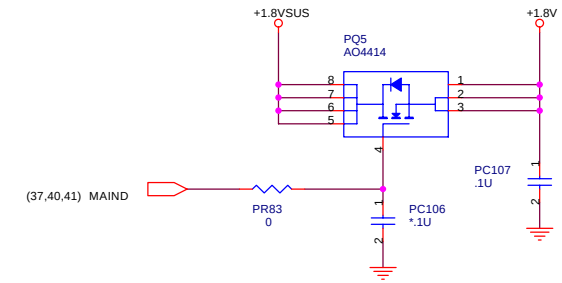
FDD6688 RDSON 4.5V = 0.006 ohm
12 * 0.006 *10 = 0.72V (ILIM)

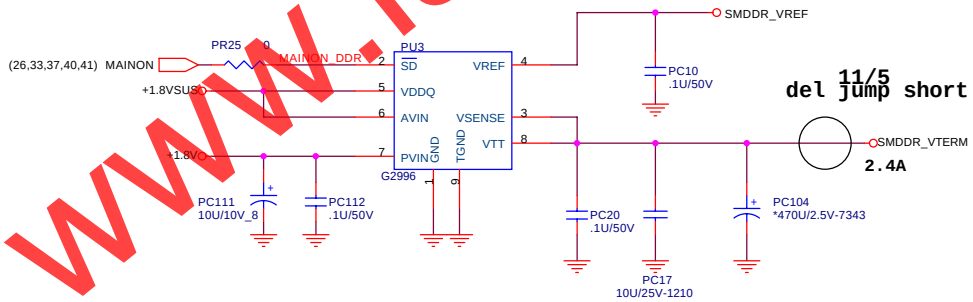
11/5
del jump short

0713 PC110 change from
CH7470LM8L1 470u/2.5V-7343 to CH747RY8800 470u/2V-7343

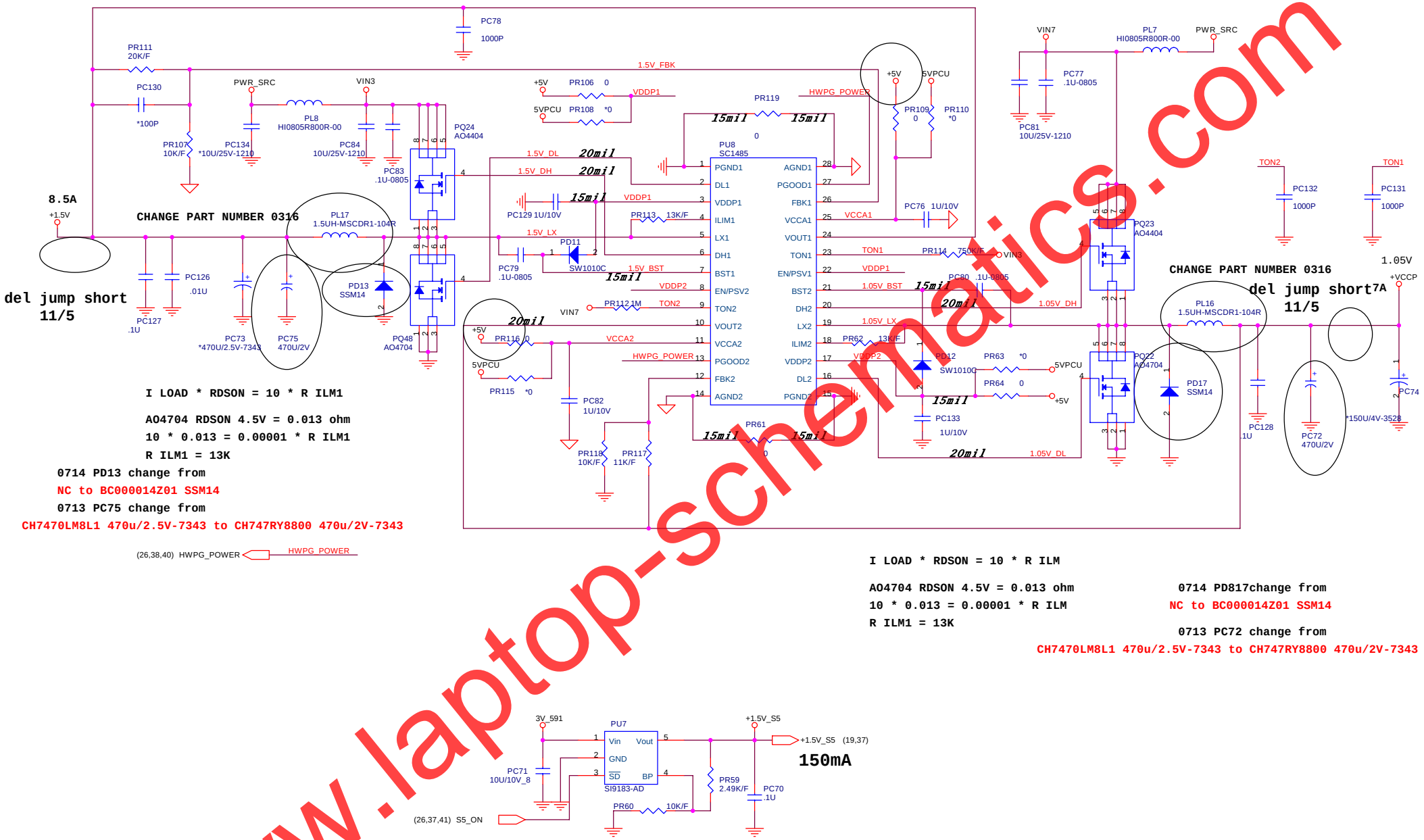
0714 PQ4 change from
BAM47040005 AO4704 to BAM66880Z01 FDD6688
0714 PD4 change from
NC to BC000014Z01 SSM14







11/5
del jump short



0714 PR37 change from
CS21823F902 1.82K/F to CS27683F909 7.68K/F
0714 PL13 change from
CV-15A0MZ05 1R5 to CV-33E0MZ01 3R3
0714 PQ11 change from
BAM44040012 AO4404 to BAM60300Z11 FDD6030L
0714 PQ37 change from
BAM47040005 AO4704 to BAM66880Z01 FDD6688

L / RL(DCR) = Cqe * Rqe

3R3 DCR = 0.0043
3.3u / 0.0043 = 0.1u * Rqe
Rqe = 7.68K

L / RL(DCR) = Cqe * Rqe

3R8 DCR = 0.0130
3.8u / 0.0130 = 0.1u * Rqe
Rqe = 2.94K

del jump short
11/5

del jump short
11/5

1.2V/1.0V
VGA_CORE
12A

4A

0714 PC118 change from
NC to CH747RY8800 470u/2.5V-7343

0713 PC57 change from
CH7470LM8L1 470u/2.5V-7343 to CH747RY8800 470u/2V-7343

0714 PD8 change from
NC to BC000014Z01 SSM14

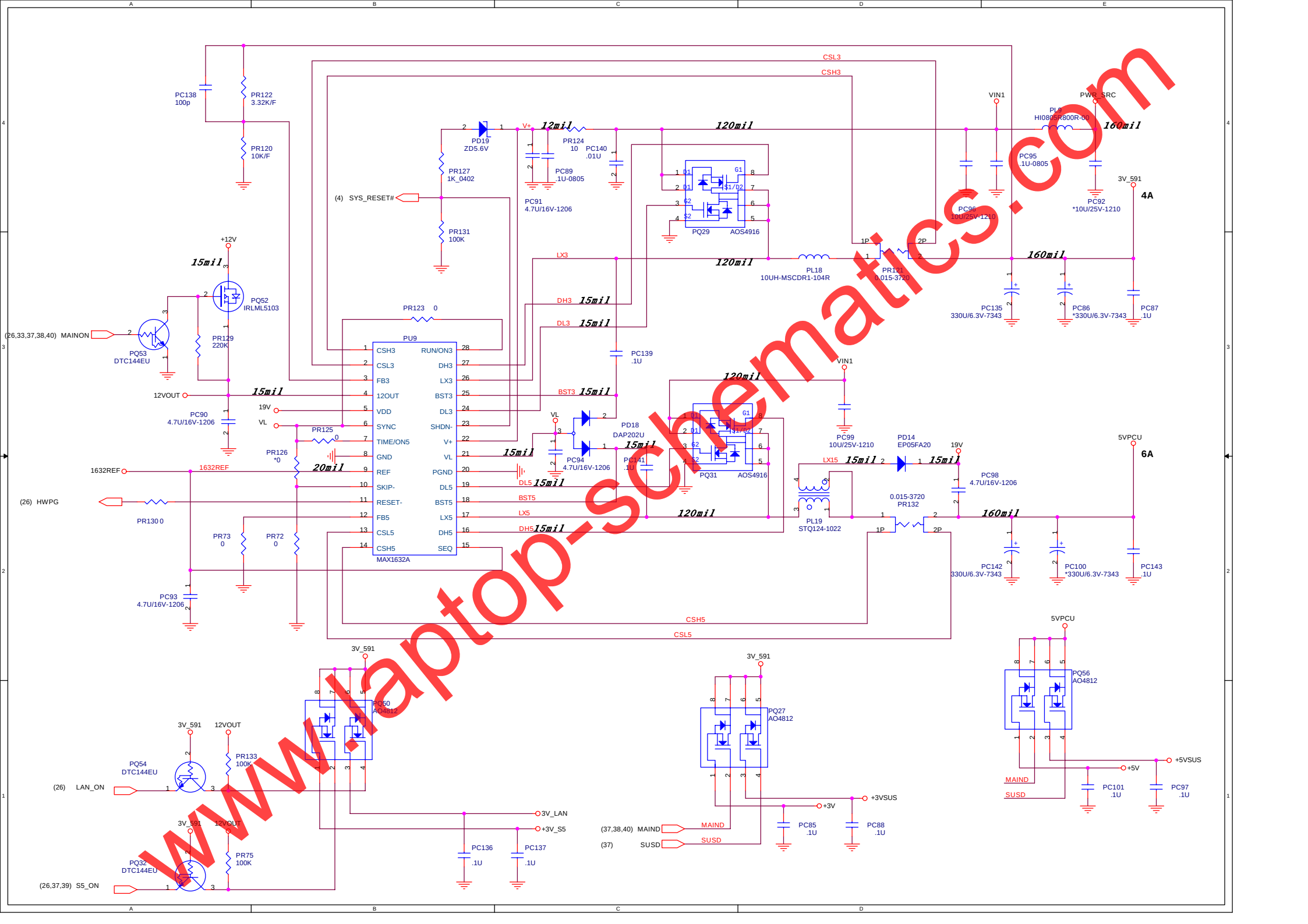
I LOAD * DCR *10 = ILIM

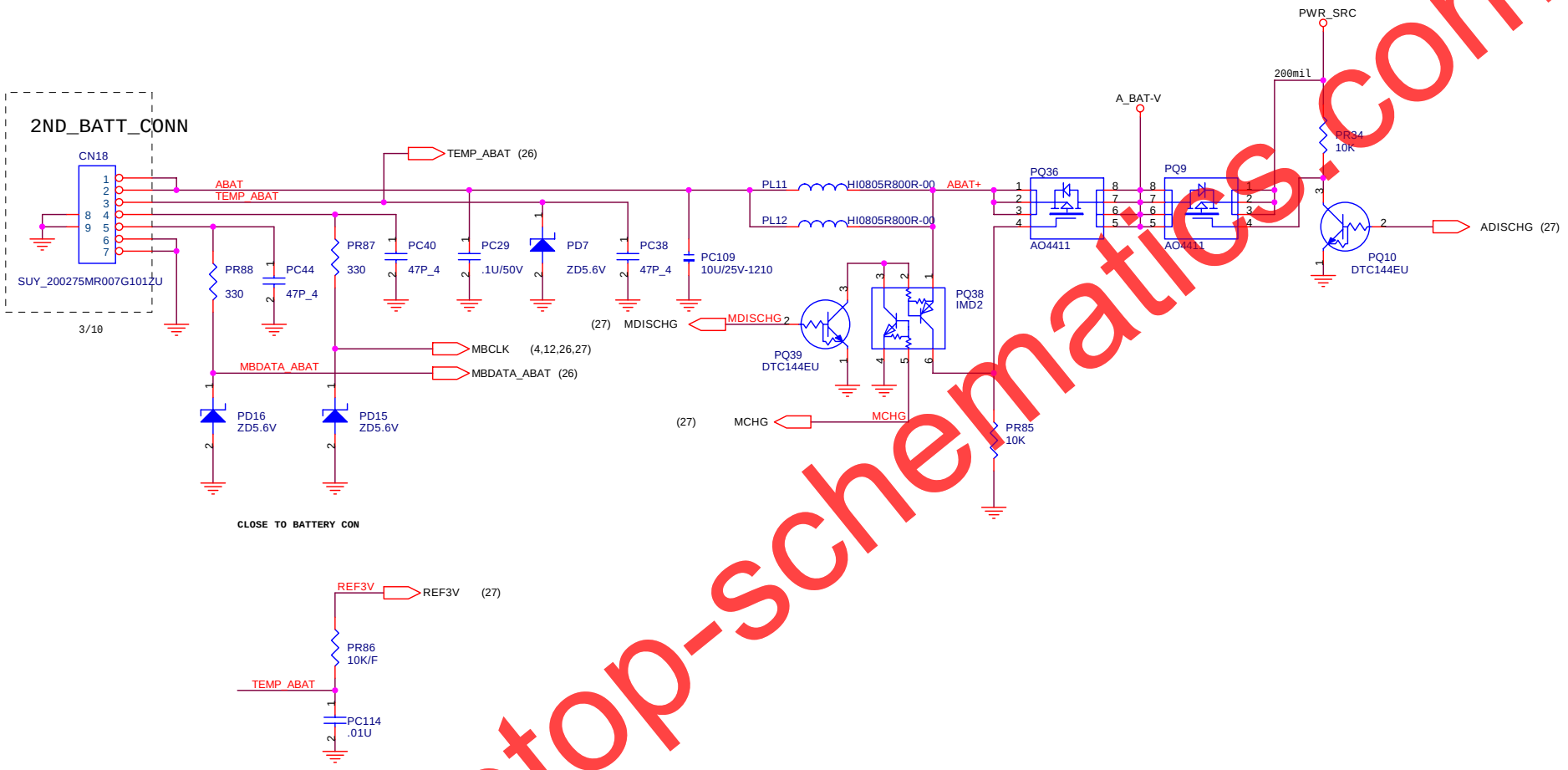
3R3 DCR = 0.0043
16 * 0.0043 *10 = 0.688V (ILIM1)
1R5 DCR = 0.0081
6 * 0.0130 *10 = 0.78V (ILIM2)

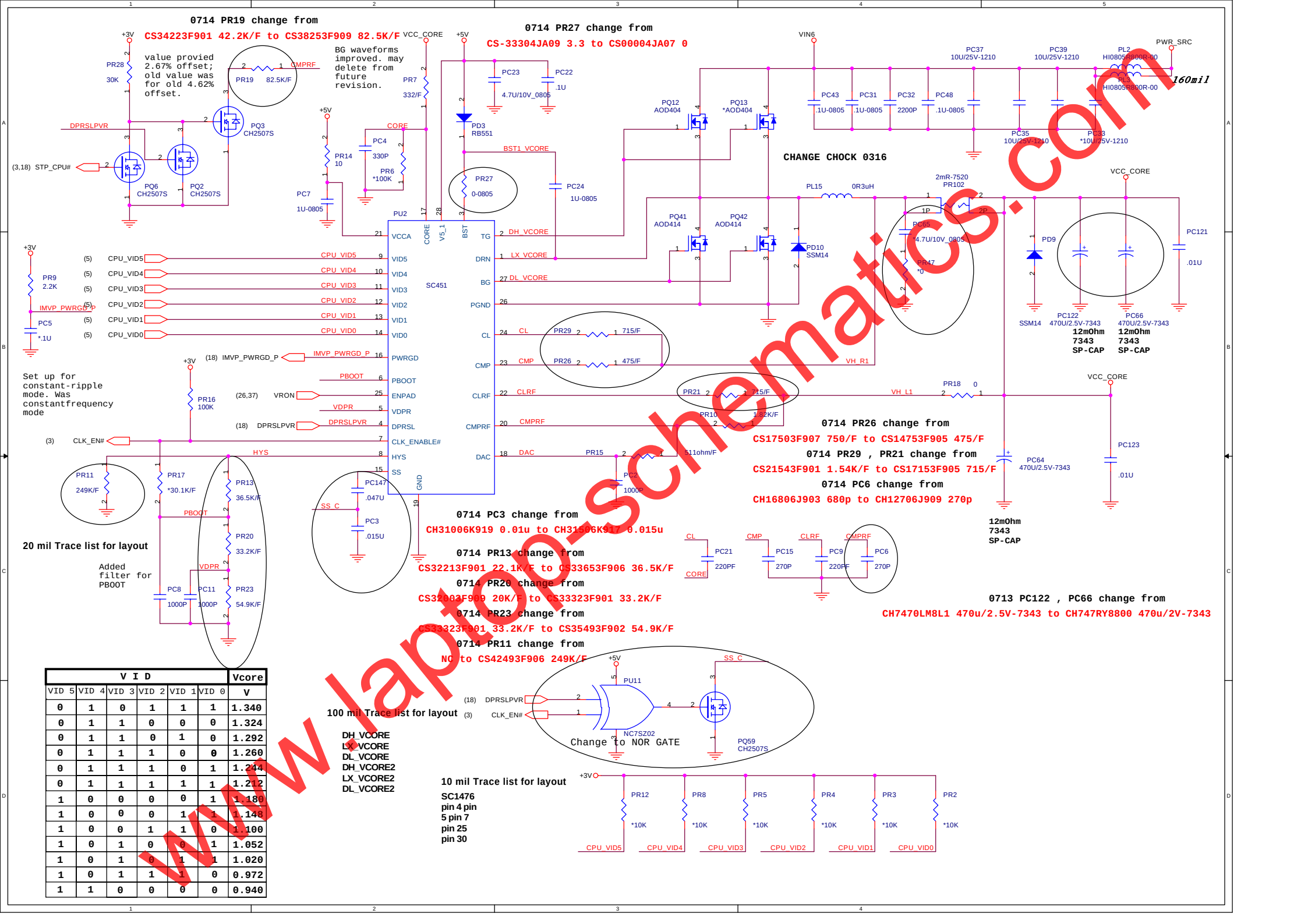
Low: 1.2V
High: 1.0V

0714 PR93 change from
CS34993F908 49.9K/F to CS35233F908 52.3K/F

0714 PR137 ADD
CS01003F902 10
0714 PC146 ADD
CH41006K911 0.1U







V I D						Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	V
0	1	0	1	1	1	1.340
0	1	1	0	0	0	1.324
0	1	1	0	1	0	1.292
0	1	1	1	0	0	1.260
0	1	1	1	0	1	1.244
0	1	1	1	1	1	1.212
1	0	0	0	0	1	1.180
1	0	0	0	1	1	1.148
1	0	0	1	1	0	1.100
1	0	1	0	0	1	1.052
1	0	1	0	1	1	1.020
1	0	1	1	1	0	0.972
1	1	0	0	0	0	0.940