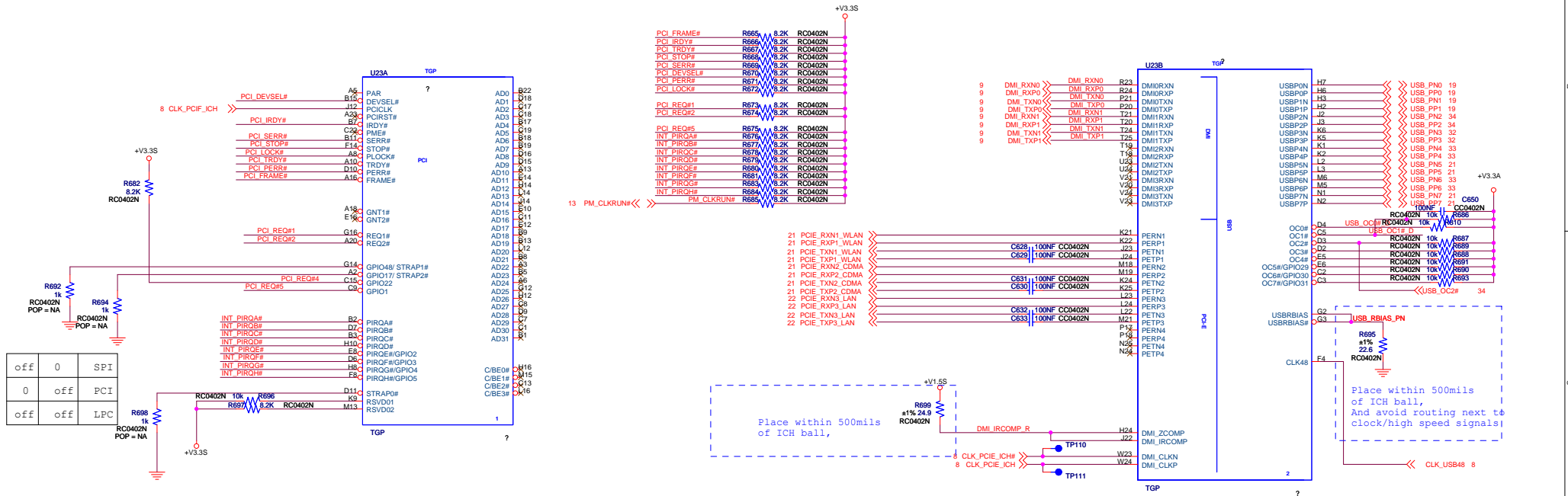


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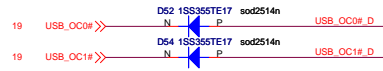
Title Pine Trail

Size C Sheet Name PINEVIEW memory Rev A

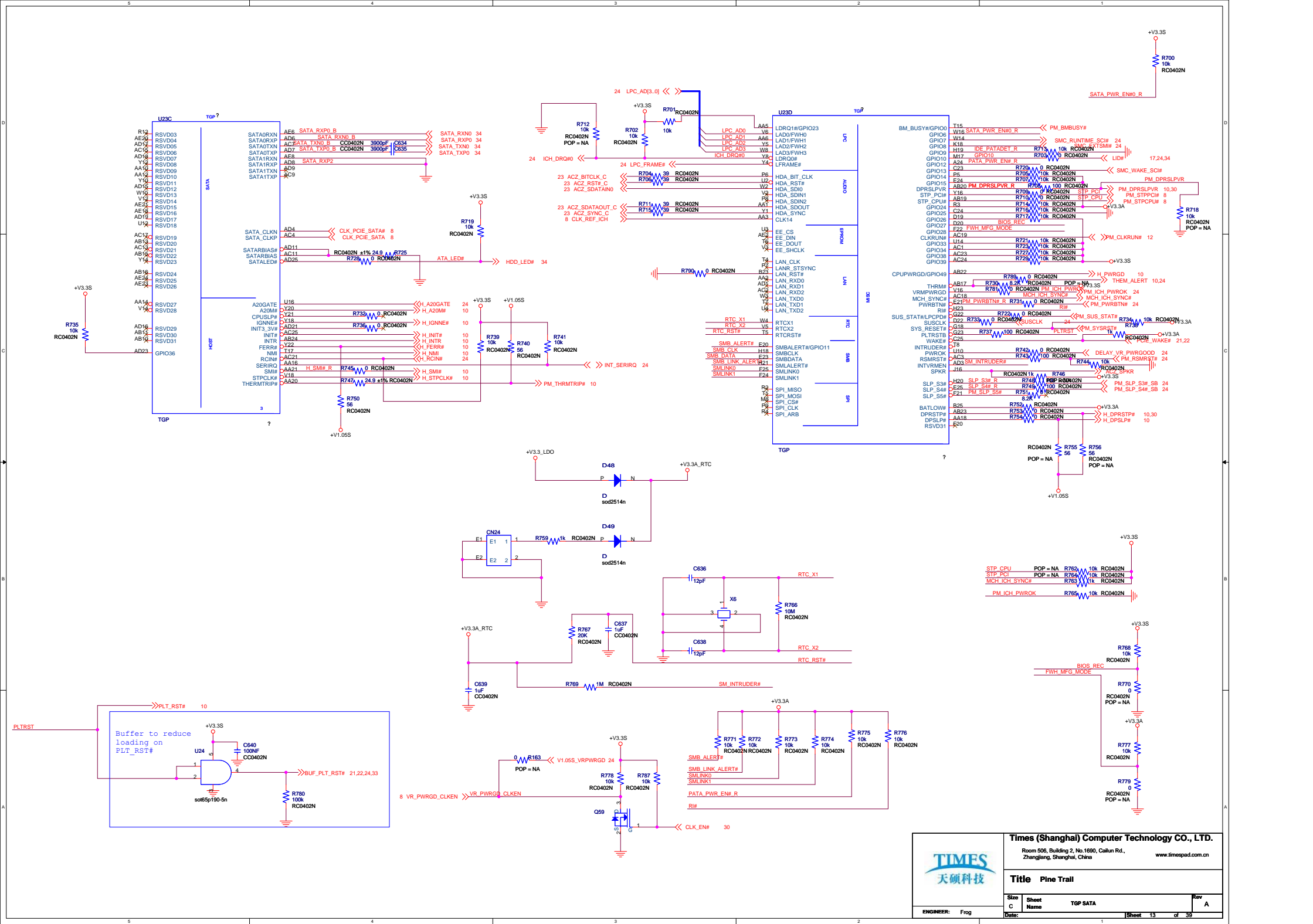
ENGINEER: Frog Date: Sheet 9 of 39

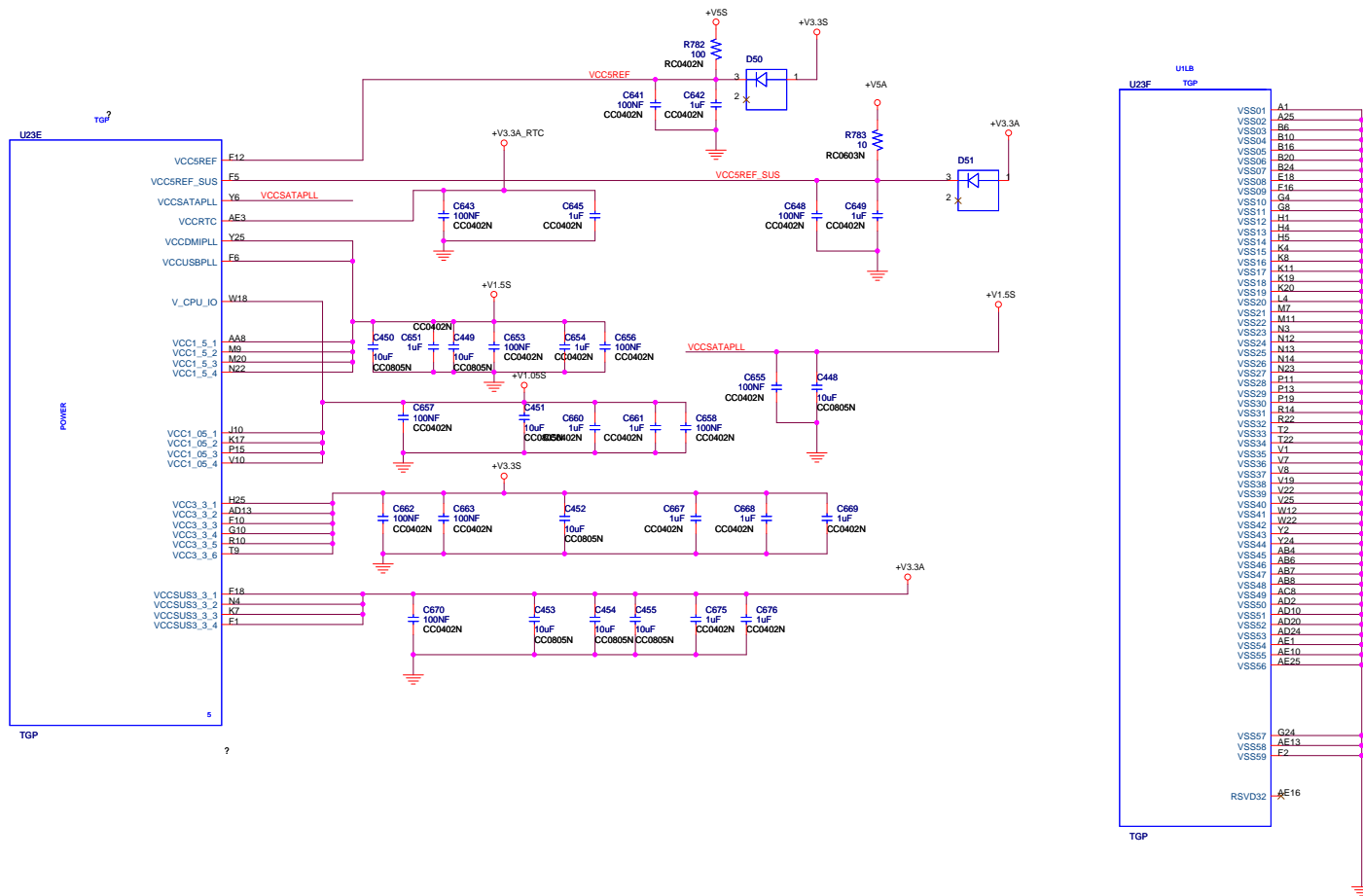


off	0	SPI
0	off	PCI
off	off	LPC

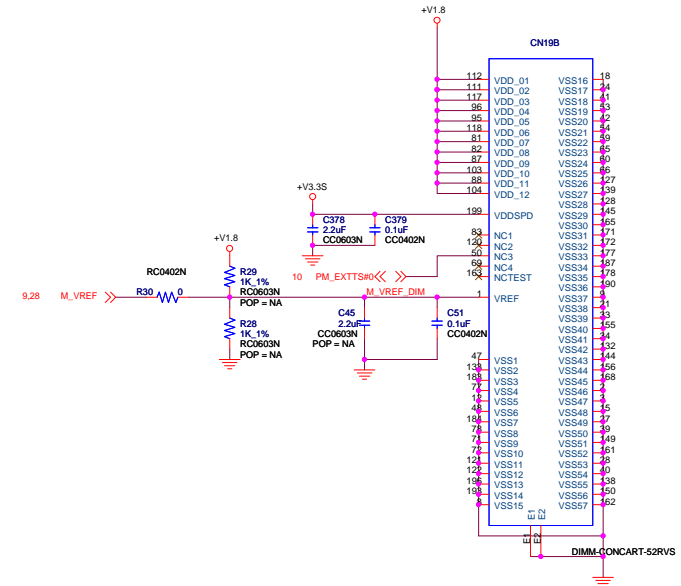
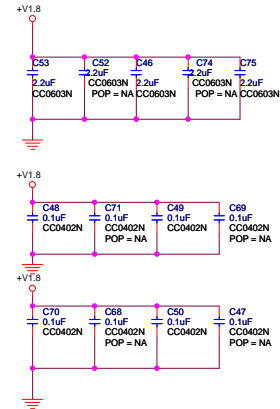
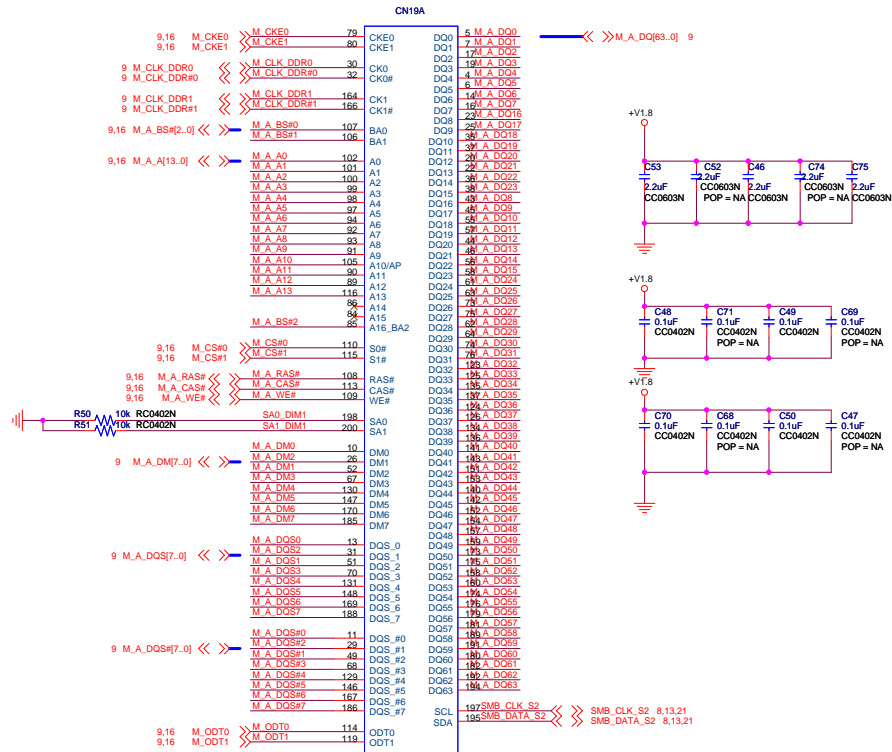
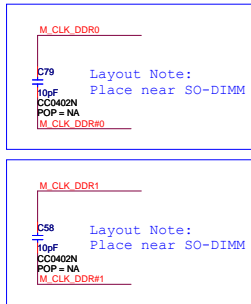


USN PORT	USED FOR
USB0	Outside USB PORT1
USB1	Outside USB PORT2
USB2	Outside USB PORT3
USB3	Card Reader
USB4	FM/BT
USB5	WLAN
USB6	Camera
USB7	CDMA





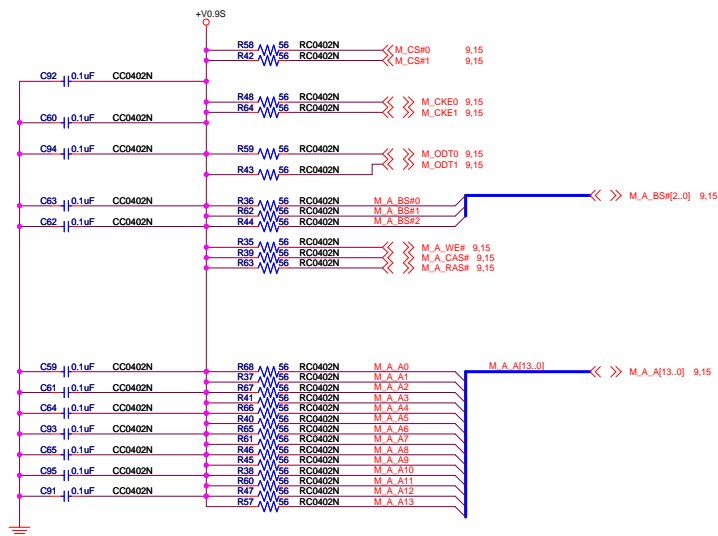
DDR2 SODIMM0



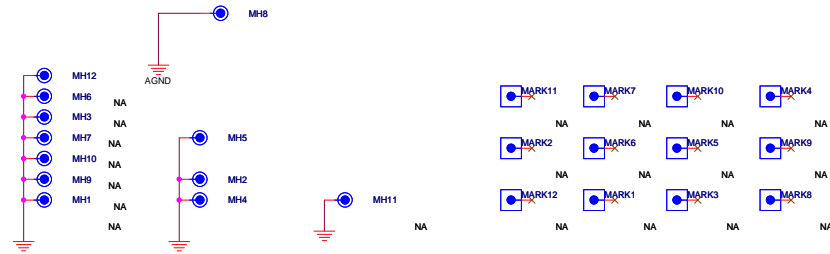
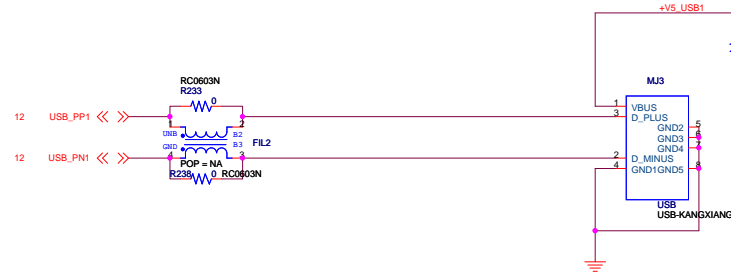
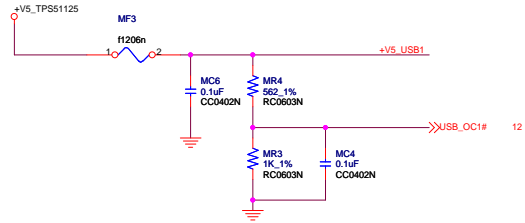
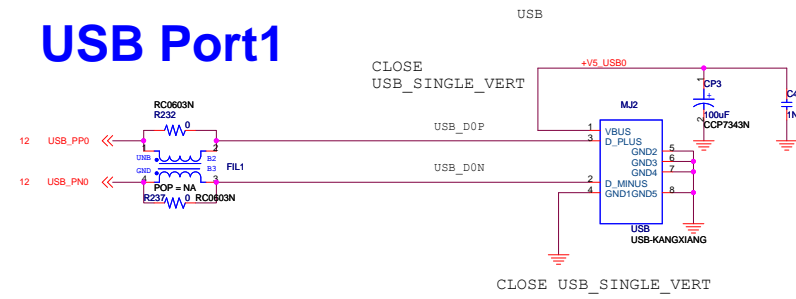
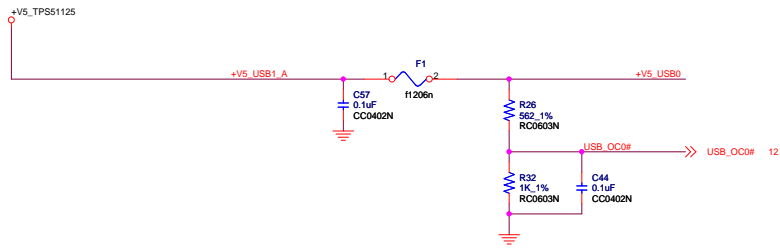
DIMM-CONCART-52RVS

DDR2 Termination

Layout note:
Place one cap
close to every 2
pullup resistors
terminated to +0.9S



USB Port1





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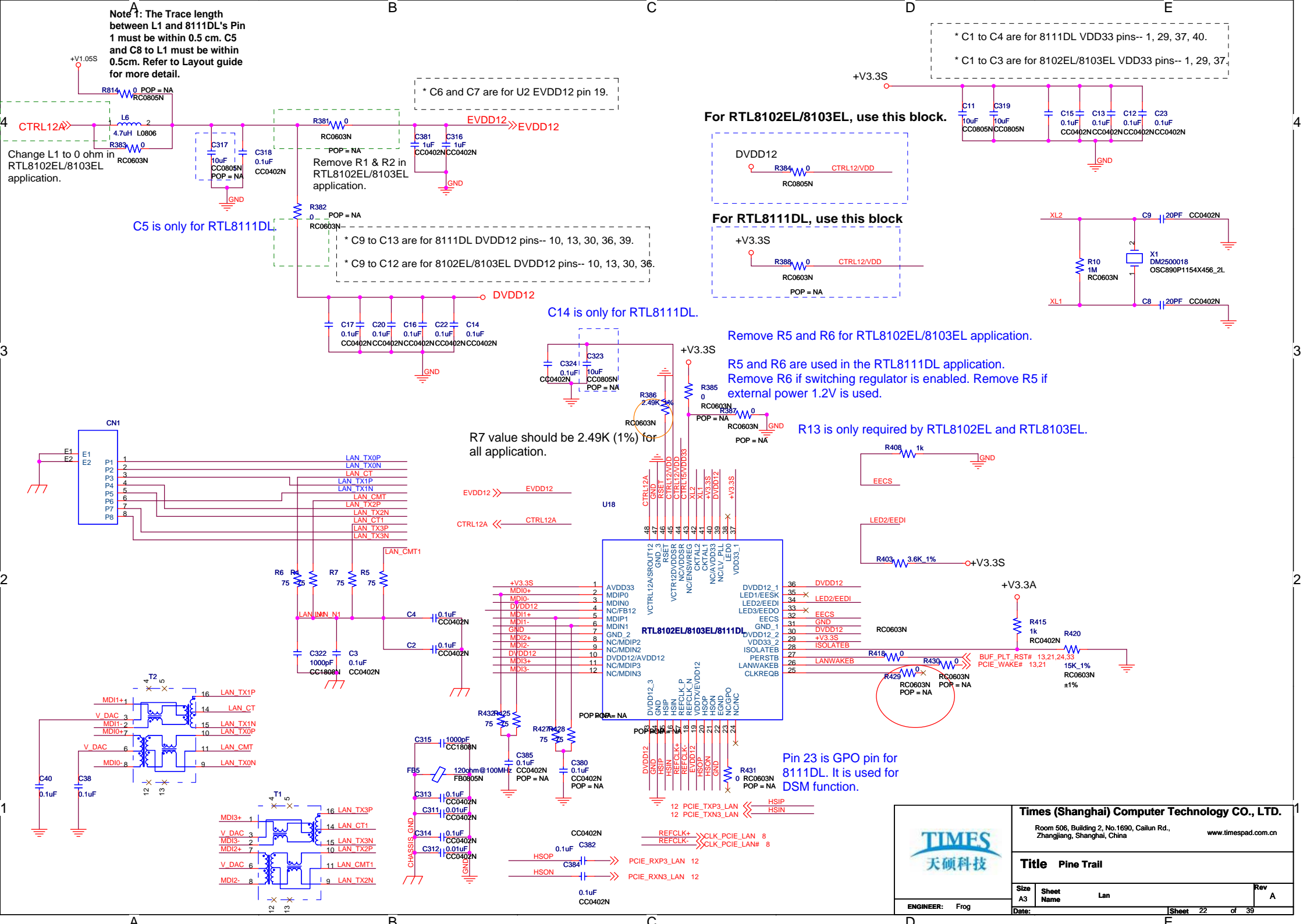
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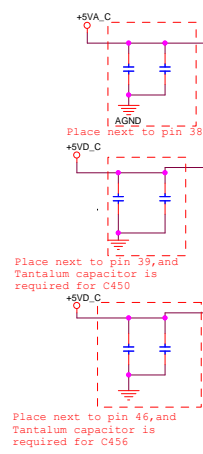
Title	Pine Trail
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ENGINEER: Frog

Size C	Sheet Name Blank	Rev A
Date:	Sheet 20 of 39	

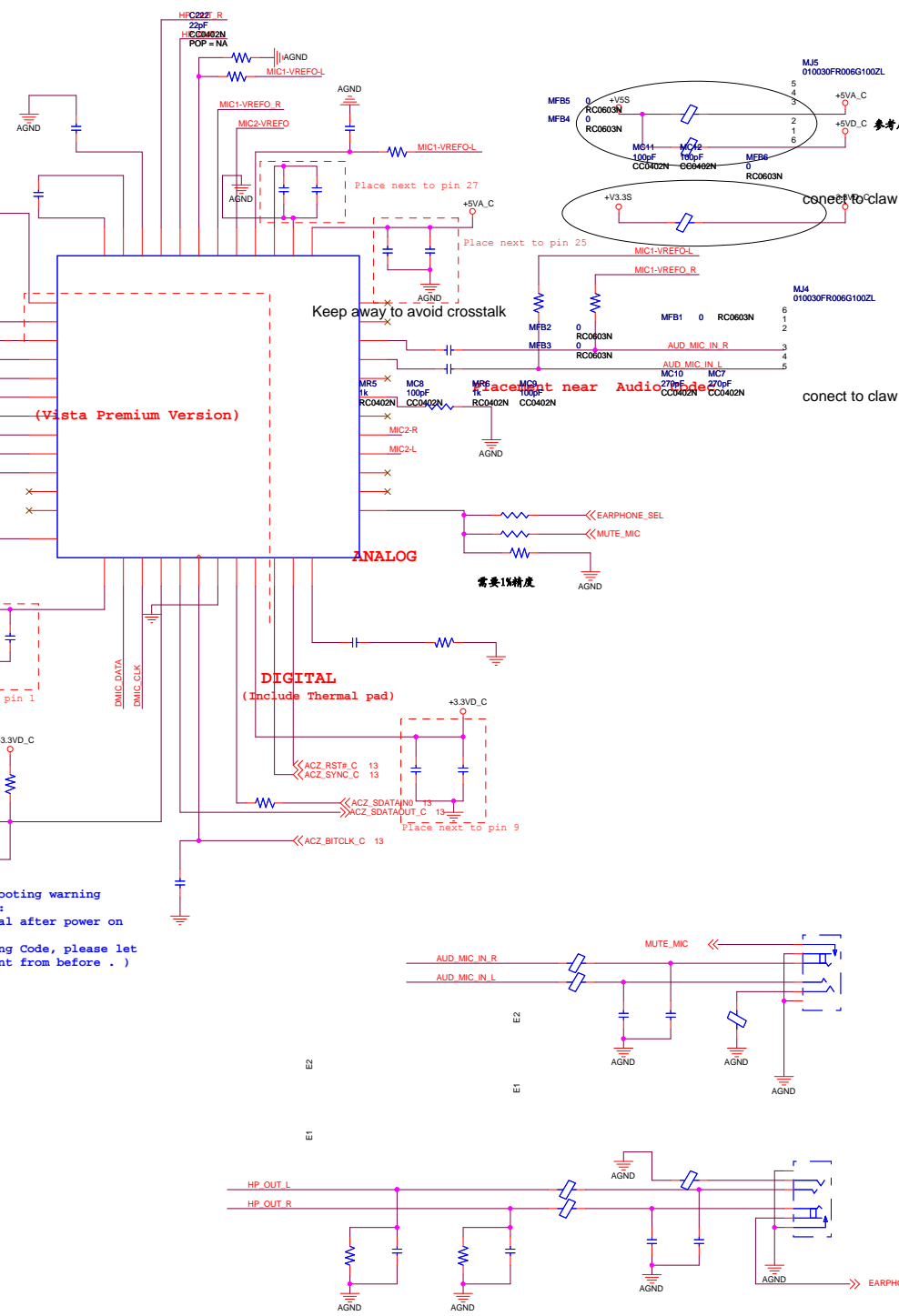


<<Attention>>
Surges of PVDD >7V duration 0.1ms when class D amplifier is working may damage the amplifier, 10uF tantalum capacitors are required at PVDD1 and PVDD2 to suppress the surge.



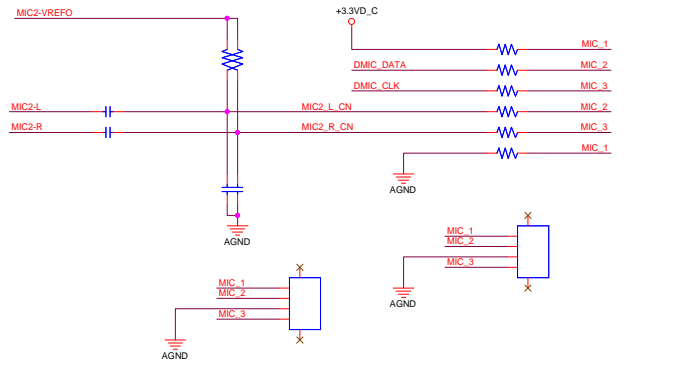
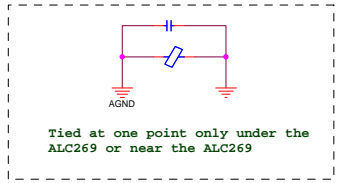
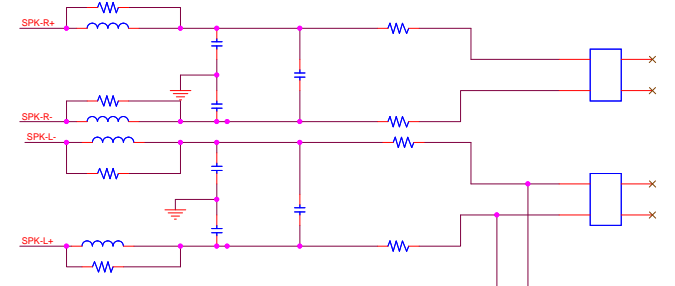
<<Attention>>
For power on/off de-pop circuit and system booting warning signal: Please System BIOS Engineer Note :
1. If you want the system make warning signal after power on , please let EC_MUTE# High first.
2. When you want to exit your Bios Programming Code, please let the EC_MUTE# Low. (The programming is different from before .)

PD# = 0V : Power down Class D SPK amplifier
PD# = 3.3V : Power up Class D SPK amplifier




<<Attention>>
If you mount the LC filter((L1/C11;C2/C7/C10/C13), Please place them together and close to codec. If the PCB trace and Speaker wire length is less than 20cm, you don't need the LC filter((L1;C11;C2;C7/C10/C13), to eliminate the EMI, If L1, L2, L3, L4 are replaced by 0 ohm/3.6A 0 RC0402N resistor (please don't use general bead, because it may influence the THD+N quality) , and C4, C11 should be NC. And, please make the trace length of SPK+/-/R+/-/R- be the same as possible as you can. C2/C7/C10/C13 are reserved for EMI filter. Internal MFC 0.0002, please also refer our ALC269 Layout guide document

Demodulation Filter
Placement near Audio Codec



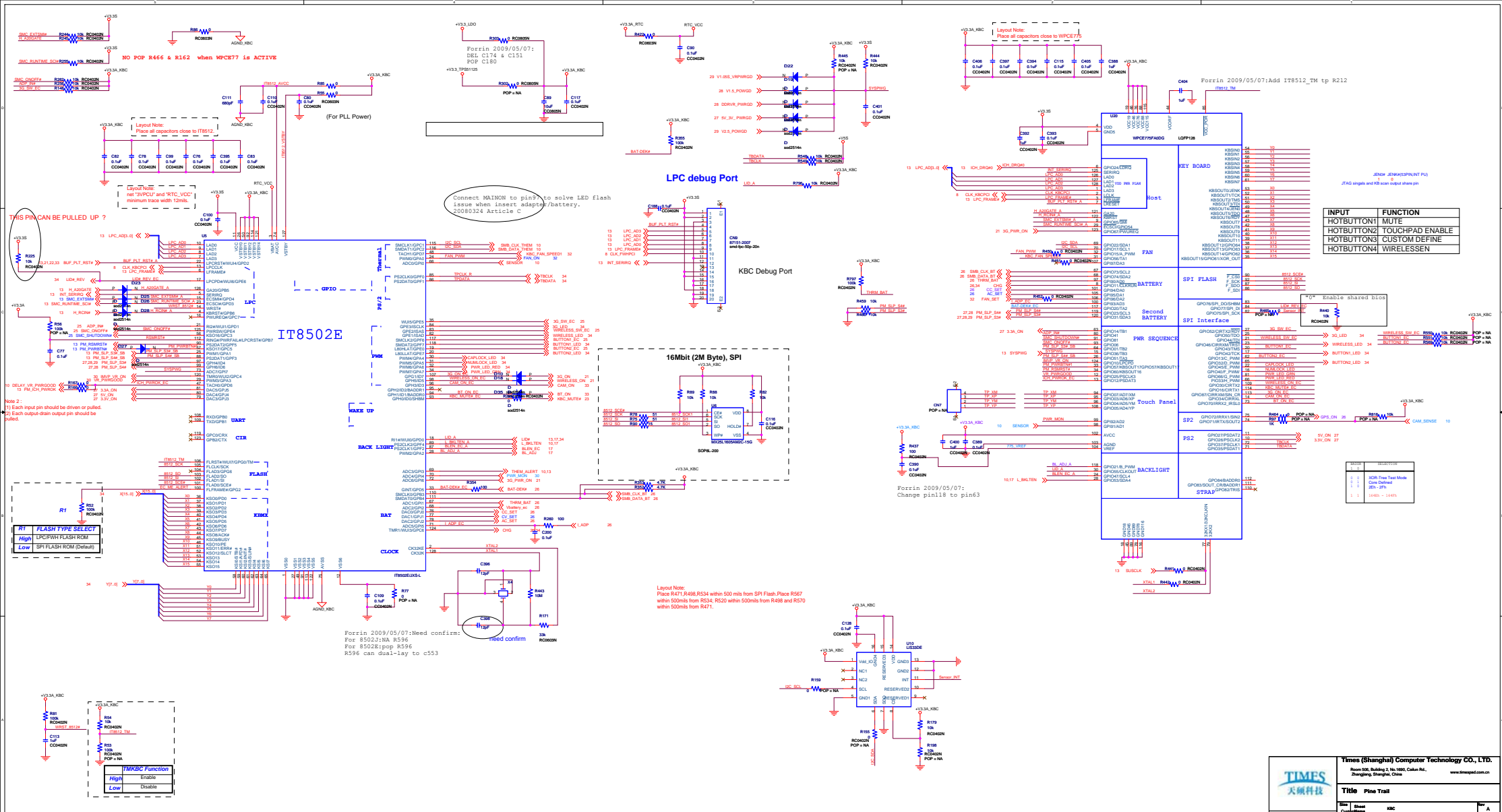
Configuration for ALC269 (Mobile system only)
Internal Speaker + Internal Mic + PCBEPP + (SPDIF Out)
HeadPhone + External Mic + SPDIF Out



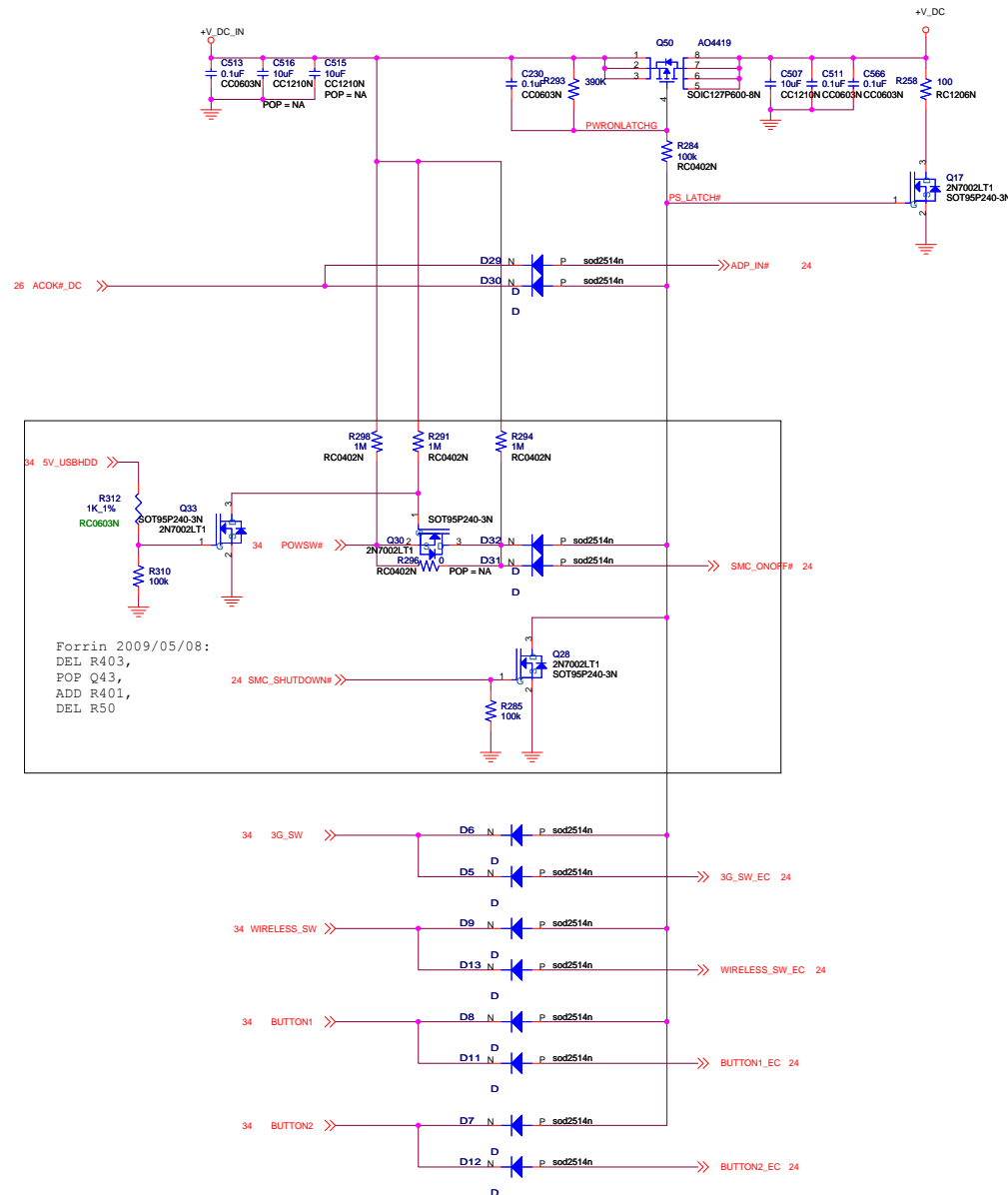
天硕科技

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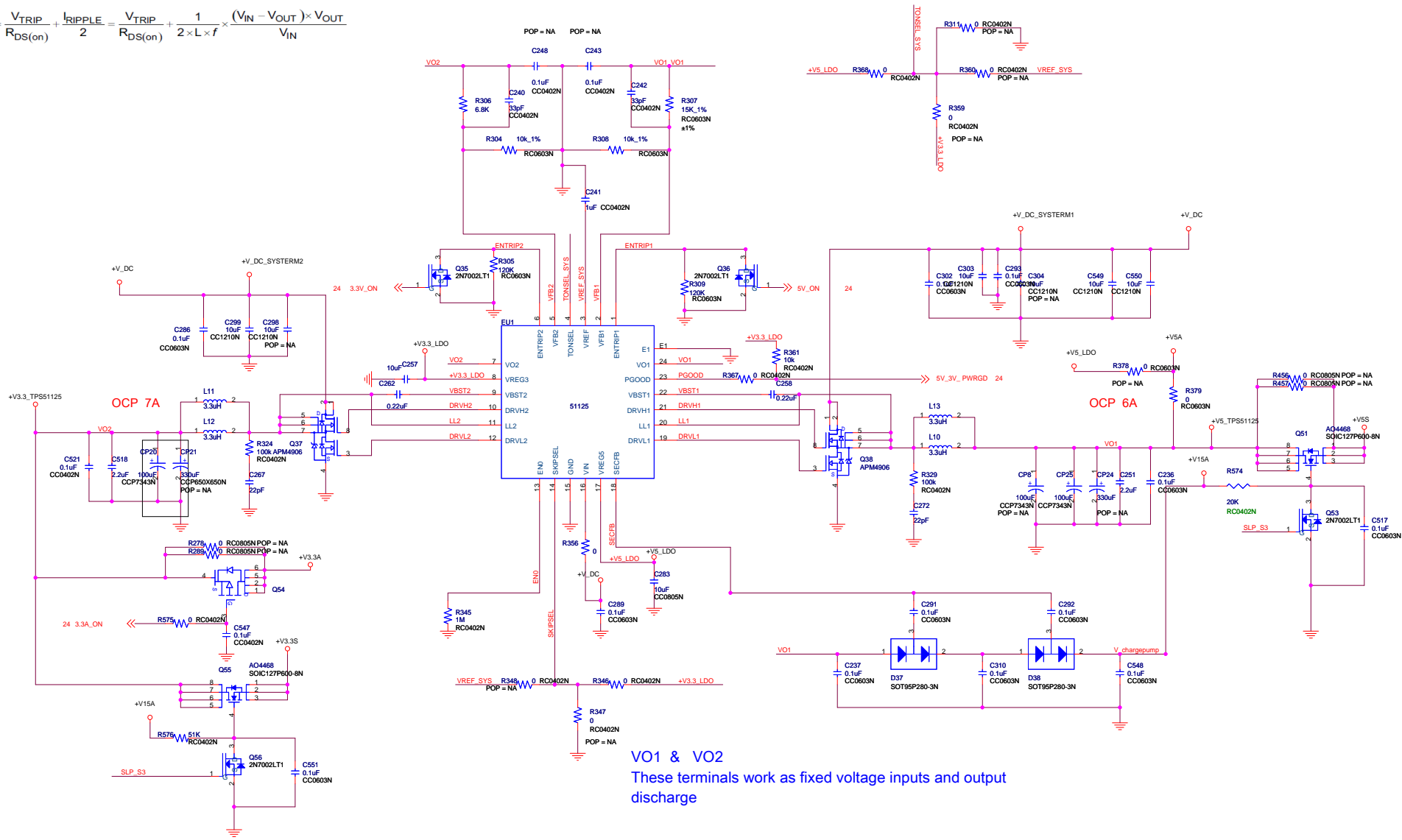
Title Pine Trail		Rev A
Size C	Sheet Name ALC269	Rev A
ENGINEER: Frog	Date:	Sheet 23 of 39



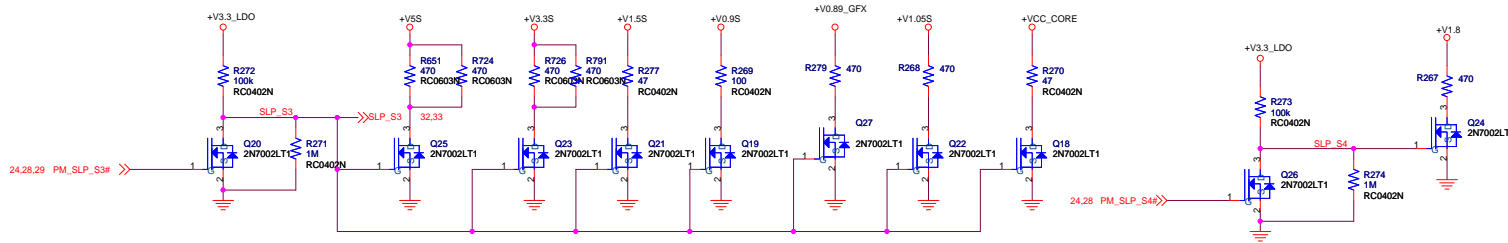
Power Button Detect & Latch

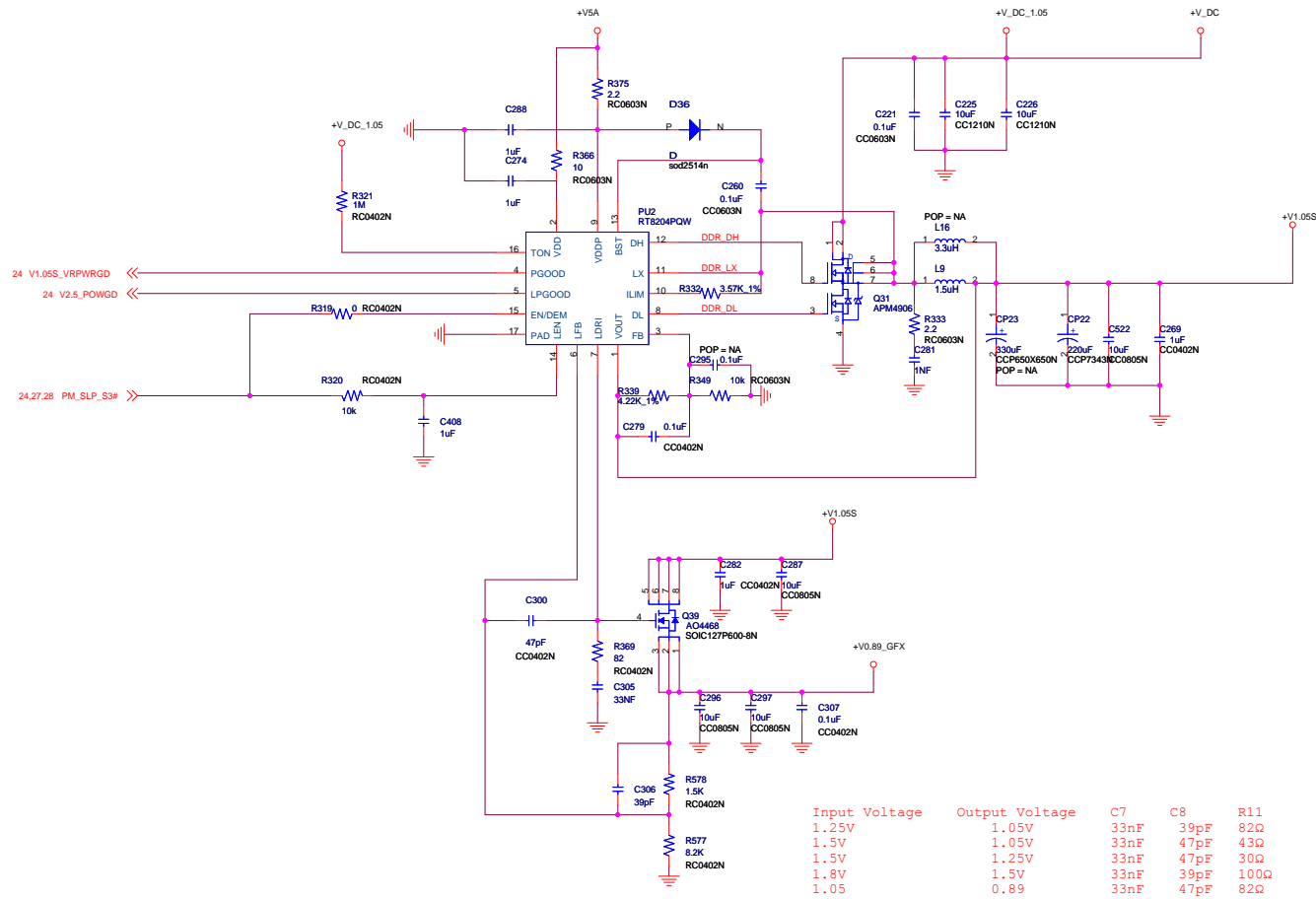


$$I_{OCP} = \frac{V_{TRIP}}{R_{DS(on)}} + \frac{I_{RIPPLE}}{2} = \frac{V_{TRIP}}{R_{DS(on)}} + \frac{1}{2 \times L \times f} \times \frac{(V_{IN} - V_{OUT}) \times V_{OUT}}{V_{IN}}$$




Power Discharge Circuit



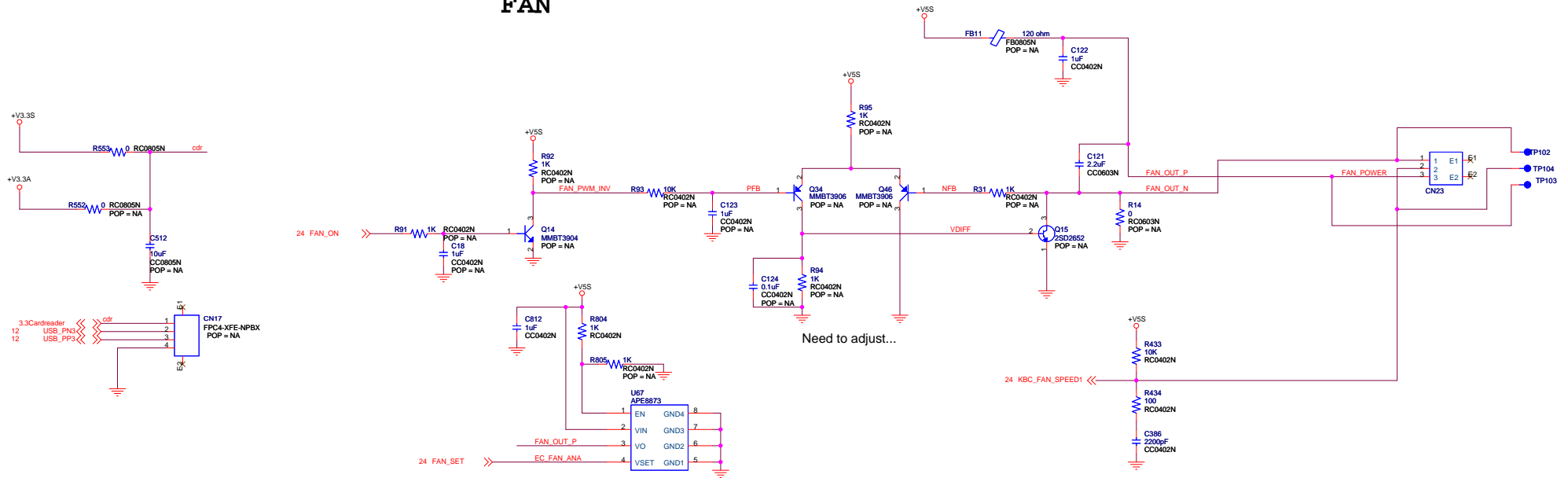


Input Voltage	Output Voltage	C7	C8	R11
1.25V	1.05V	33nF	39pF	82Q
1.5V	1.05V	33nF	47pF	43Q
1.5V	1.25V	33nF	47pF	30Q
1.8V	1.5V	33nF	39pF	100Q
1.05	0.89	33nF	47pF	82Q

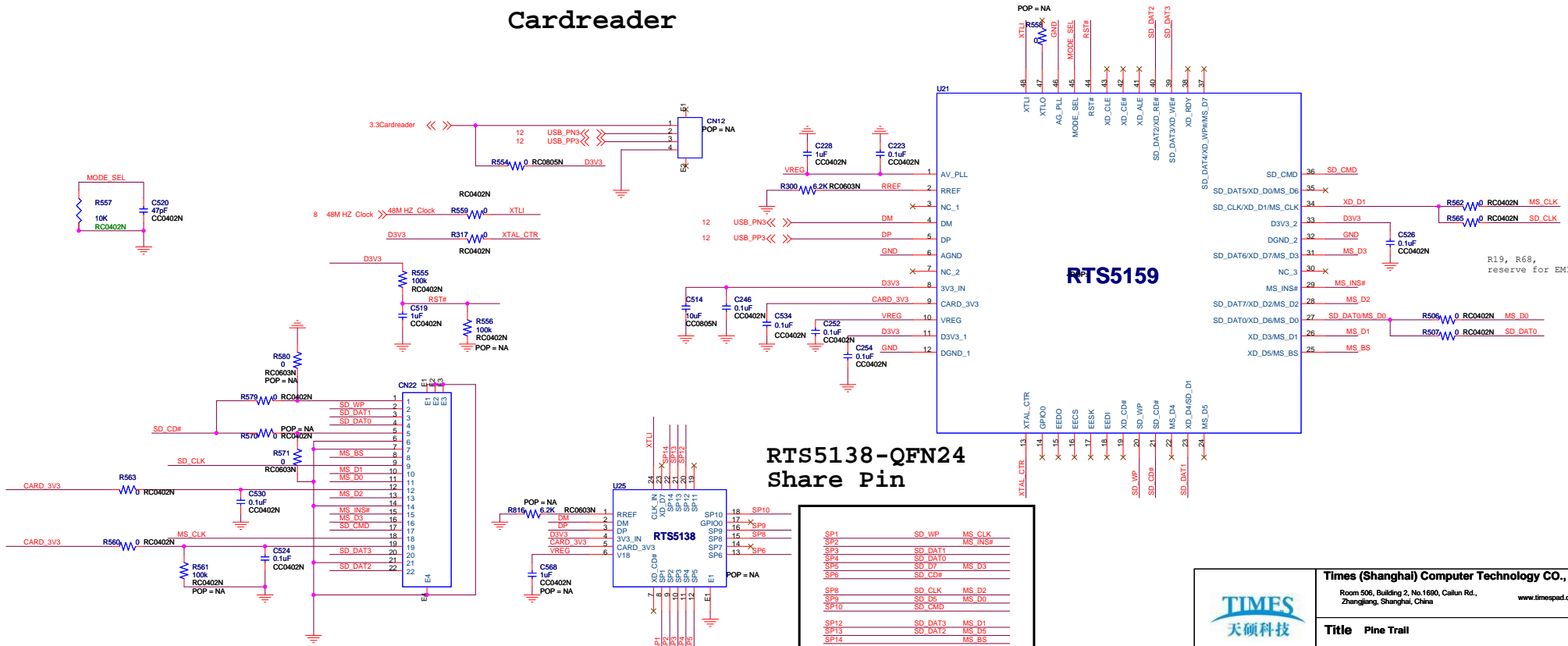
5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

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		Title Pine Trail	
ENGINEER: Frog	Size C	Sheet Name Blank	Rev A
Date:		Sheet 31 of 39	

FAN



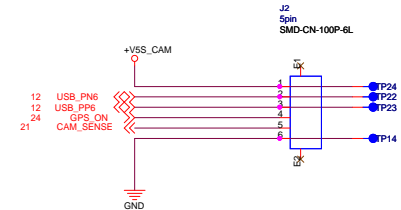
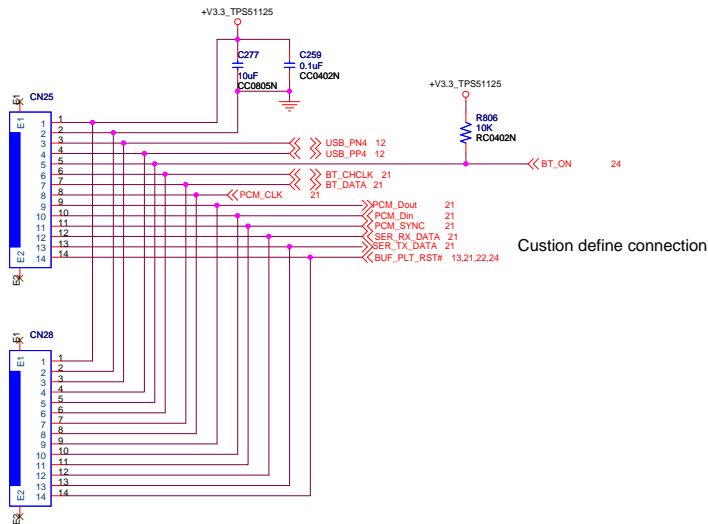
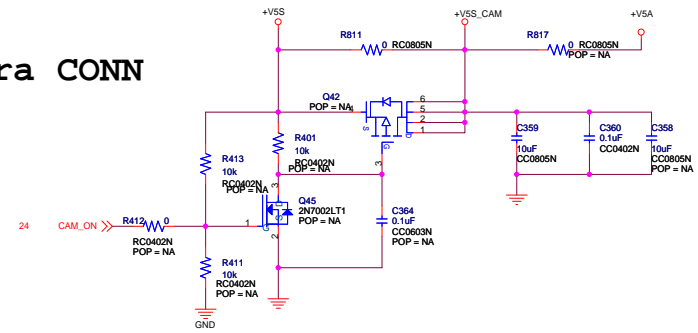
Cardreader

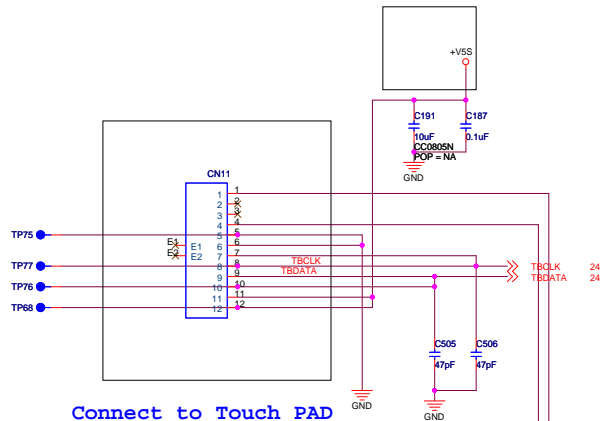


RTS5138-QFN24 Share Pin

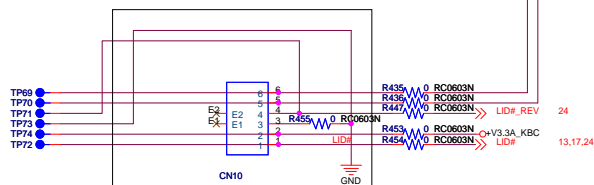
SP1	SD_WP	MS_CLK
SP2	SD_DAT1	MS_NS#
SP3	SD_DAT0	
SP4	SD_D0	MS_D3
SP5	SD_D1	
SP6	SD_CD#	
SP8	SD_CLK	MS_D2
SP9	SD_D5	MS_D0
SP10	SD_CMD	
SP12	SD_DAT3	MS_D1
SP13	SD_DAT2	MS_D5
SP14		MS_BS

Camera CONN





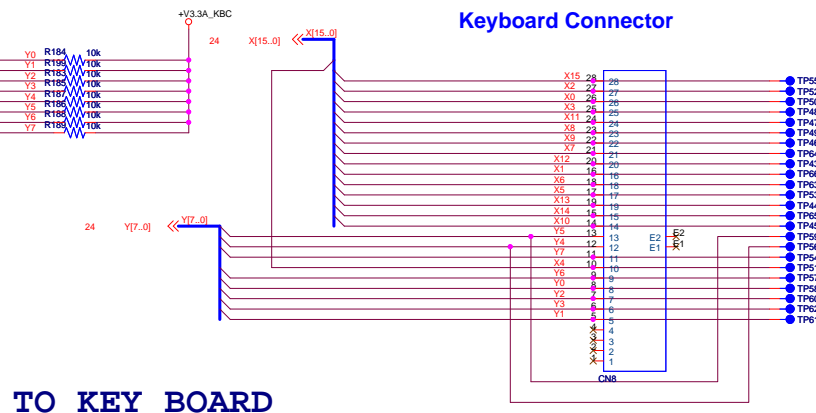
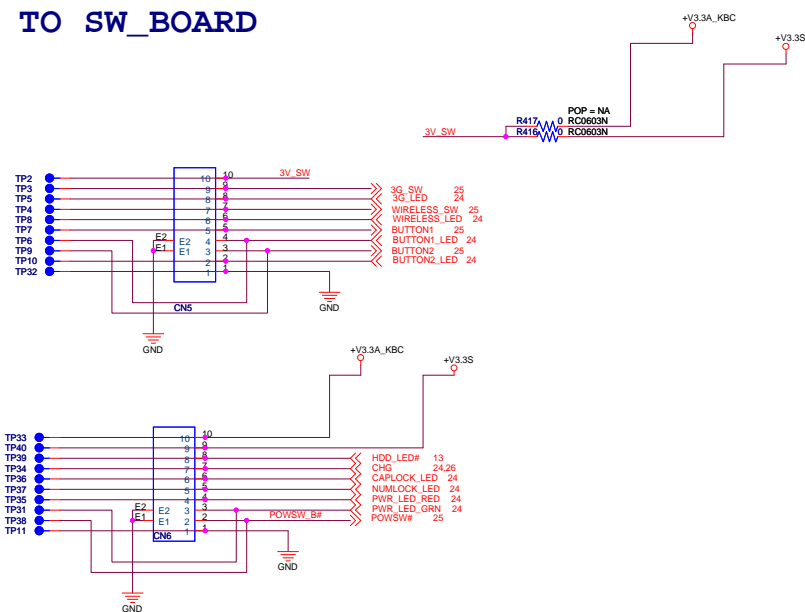
Connect to Touch PAD



Connect to L R button

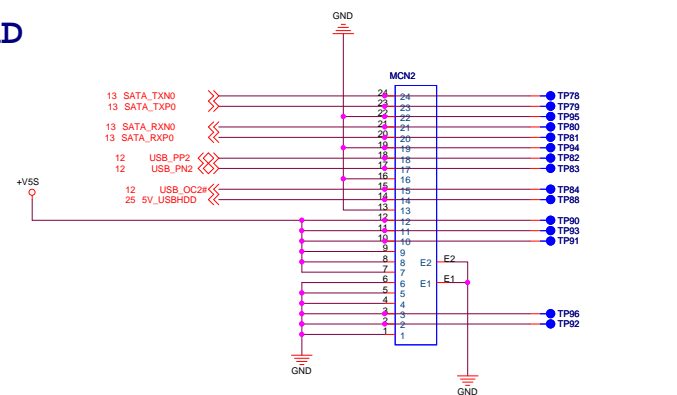
TO TP_BOARD

TO SW_BOARD



TO KEY_BOARD

TO HDD BOARD



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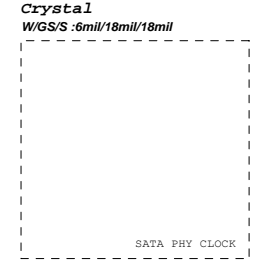
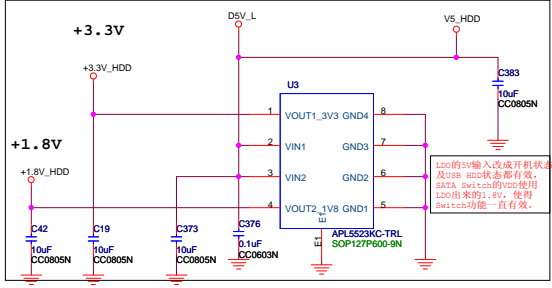
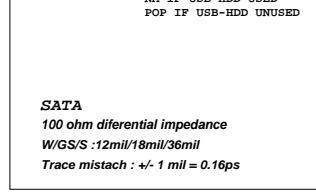
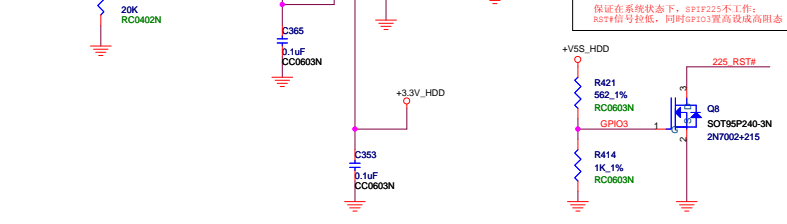
Title Pine Trail

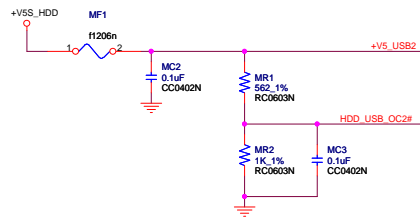
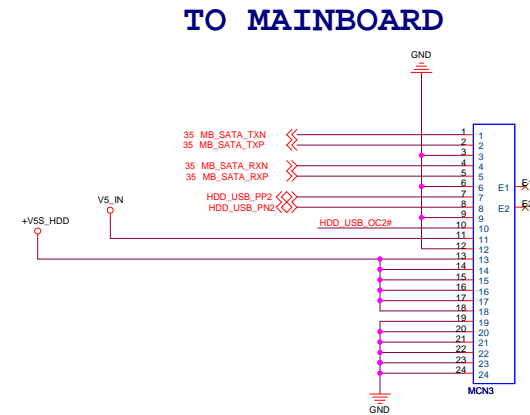
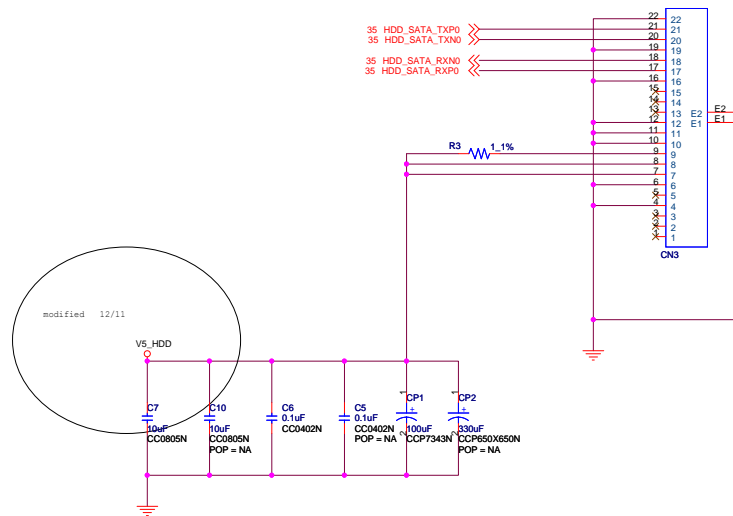
Size	Sheet	Main Board	Rev
C	Name		A

ENGINEER: Frog

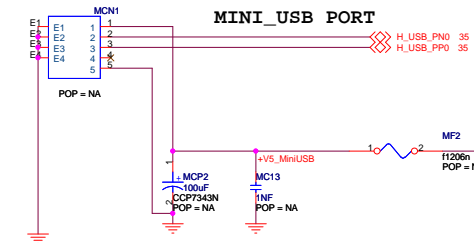
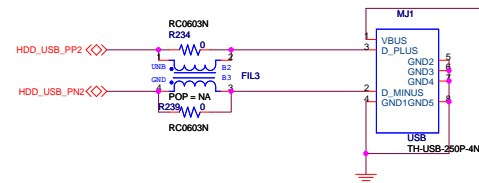
Date: Sheet 34 of 39

36 H_USB_PP0 225_DP
36 H_USB_PN0 225_DM

[illegible]



USB DJ



MiniUSB