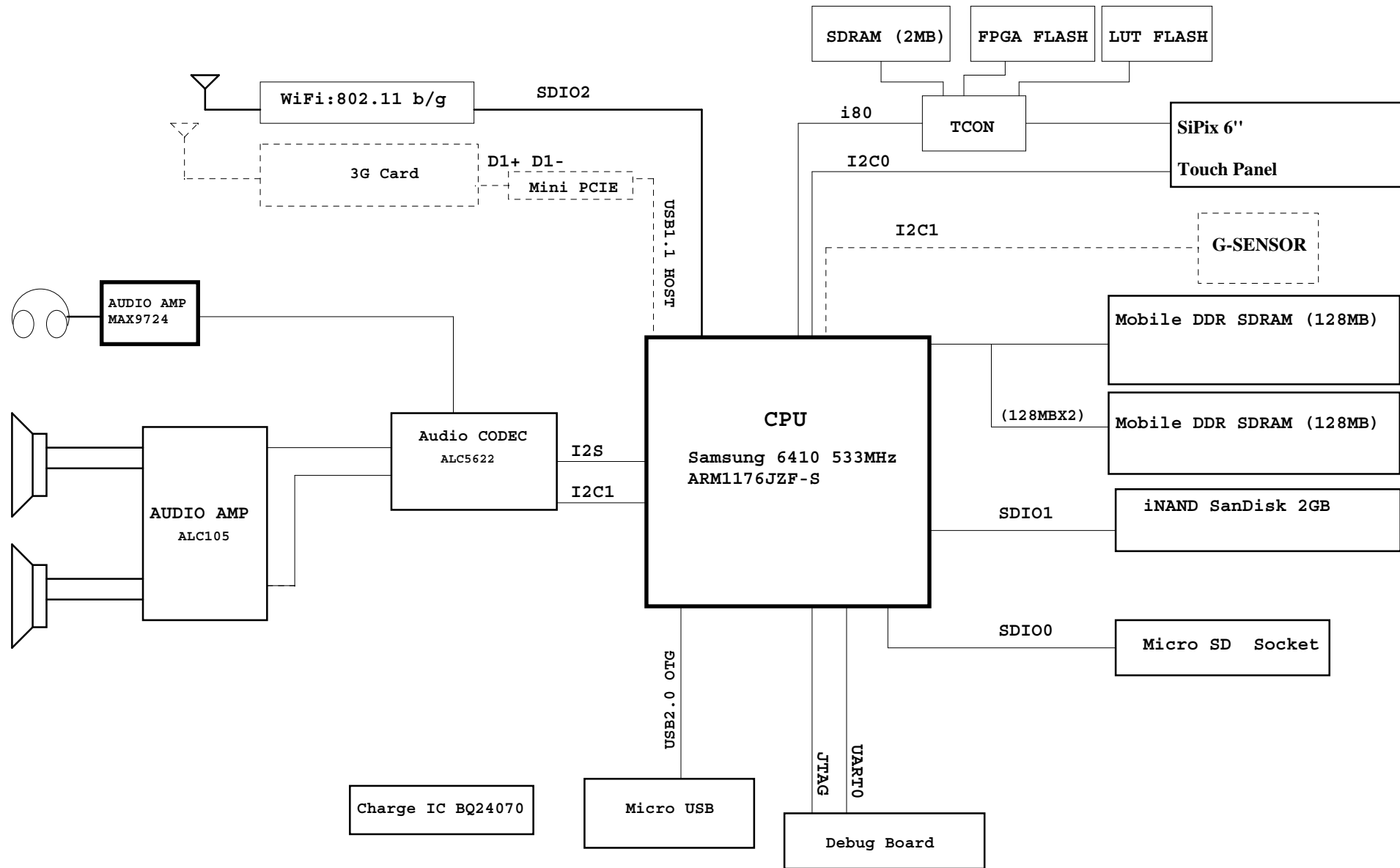


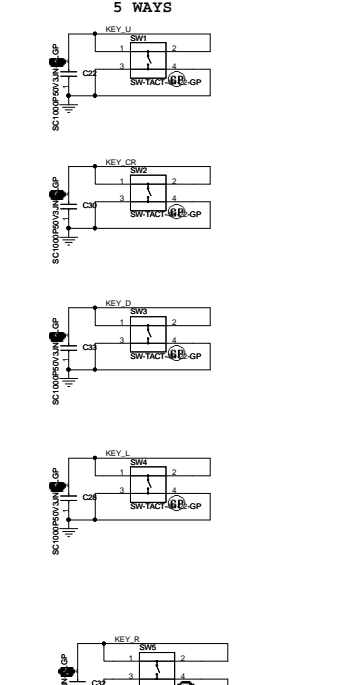
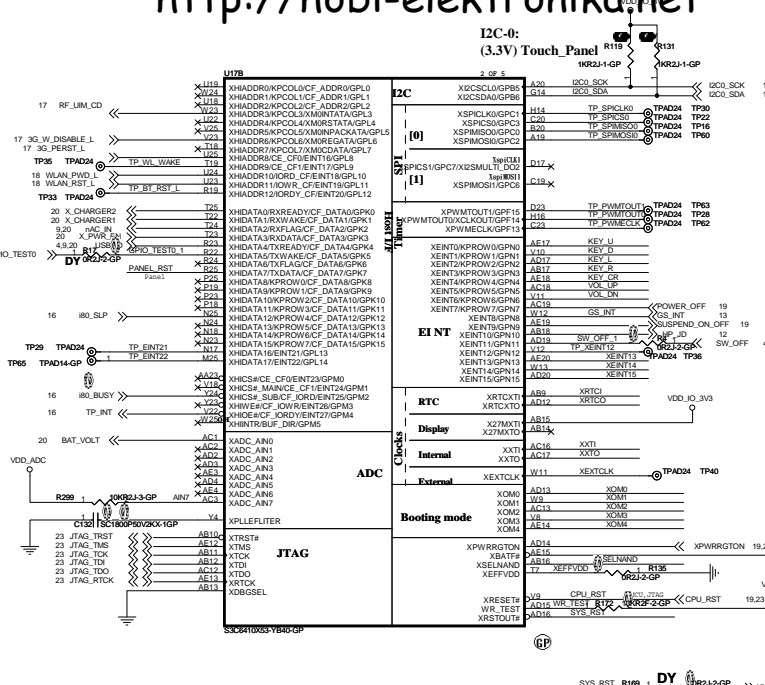
Date	Comment	



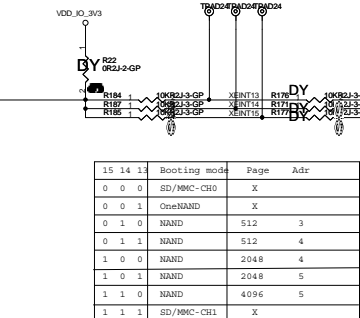
Project name: Aegean
 Project code: 91.4IB01.001
 PCB number: 09953-SA
 PCB P/N: 48.4IB01.0SA

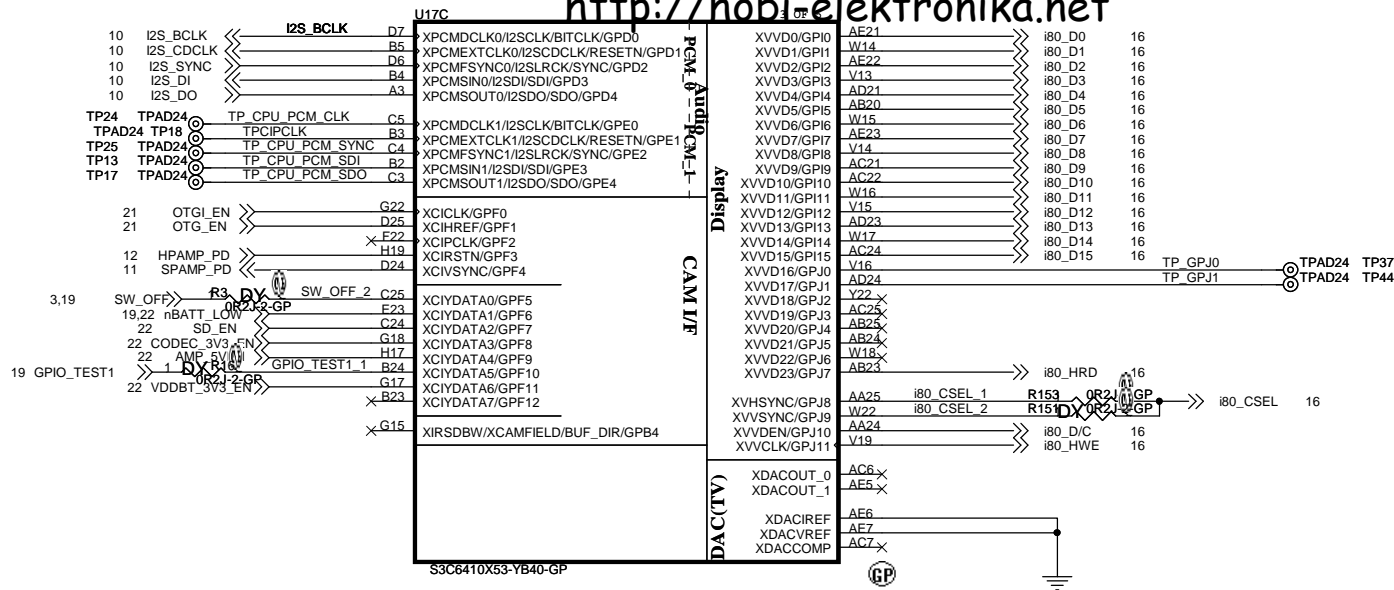
緯創資通		Wistron Corporation	
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Title: Block Diagram			
Size: A2	Document Number: Aegean	Rev: LAB	
Date: Sunday, January 25, 2010	Sheet: 2	of	25

Pin list for U17A (DDR0-15) and mDDR Interface (XMC050-053).

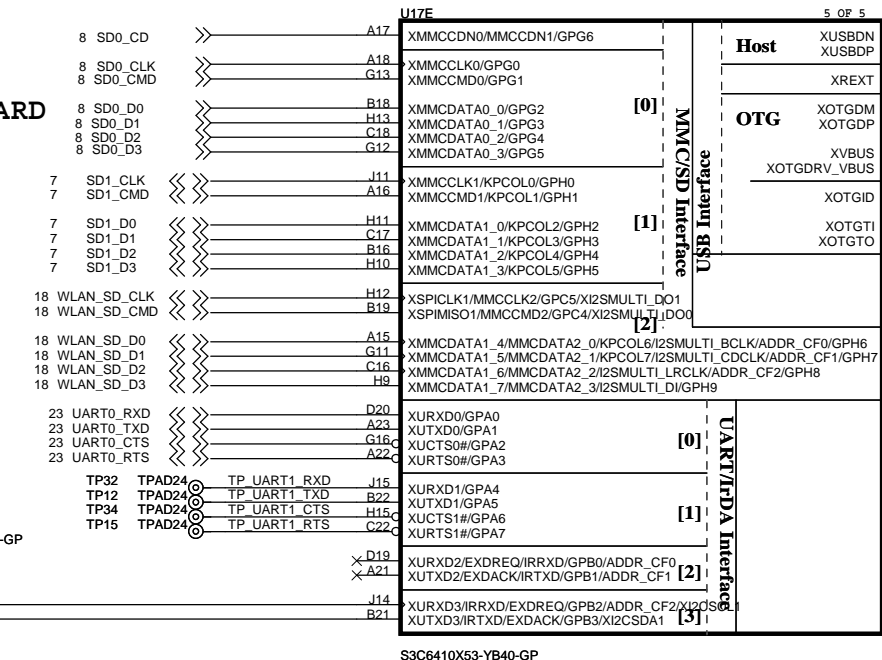


iROM BOOT pin description

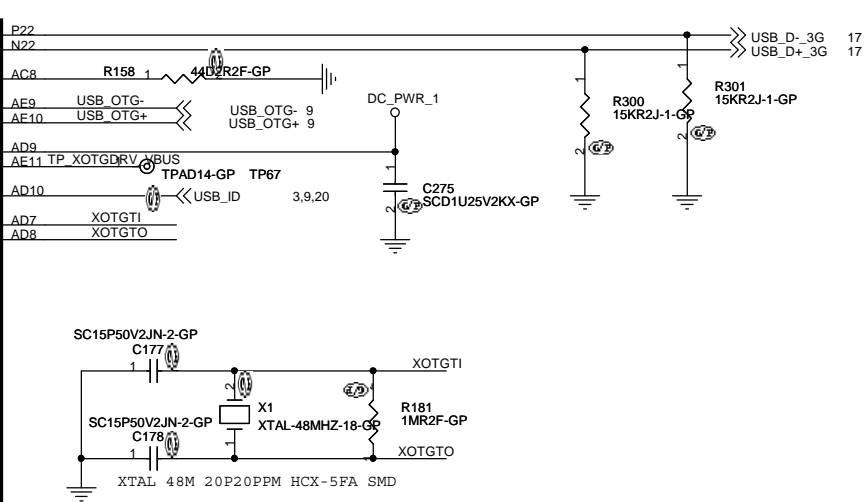




SD CARD



I2C-1: (3.3V) G_Sensor (3.3V) CODEC

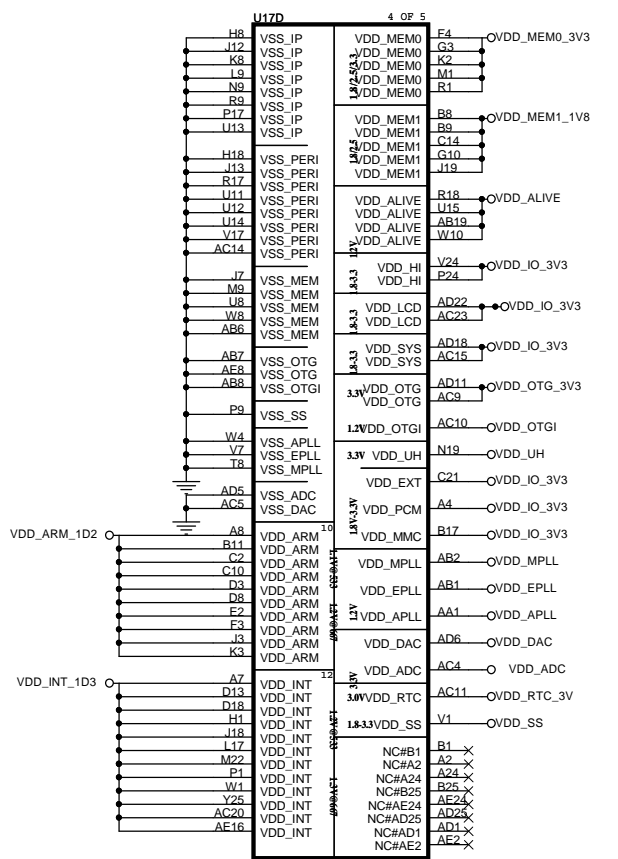


緯創資通 Wistron Corporation
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Title: **CPU2**

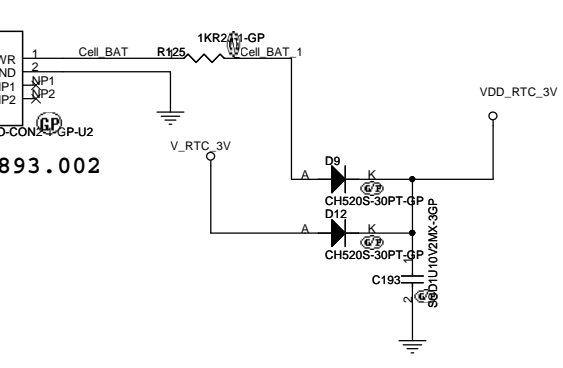
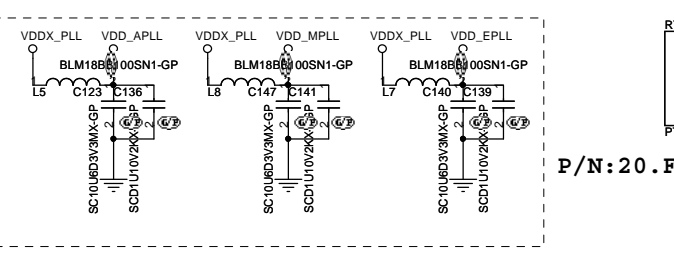
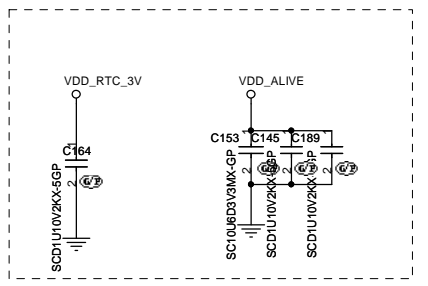
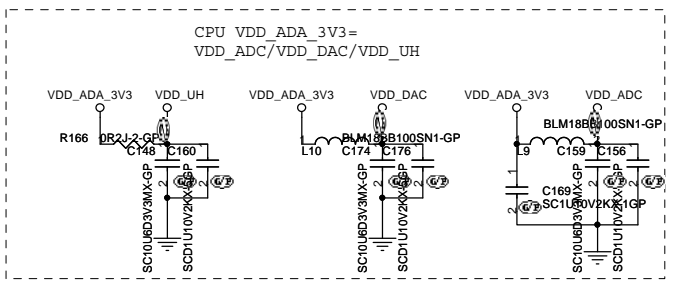
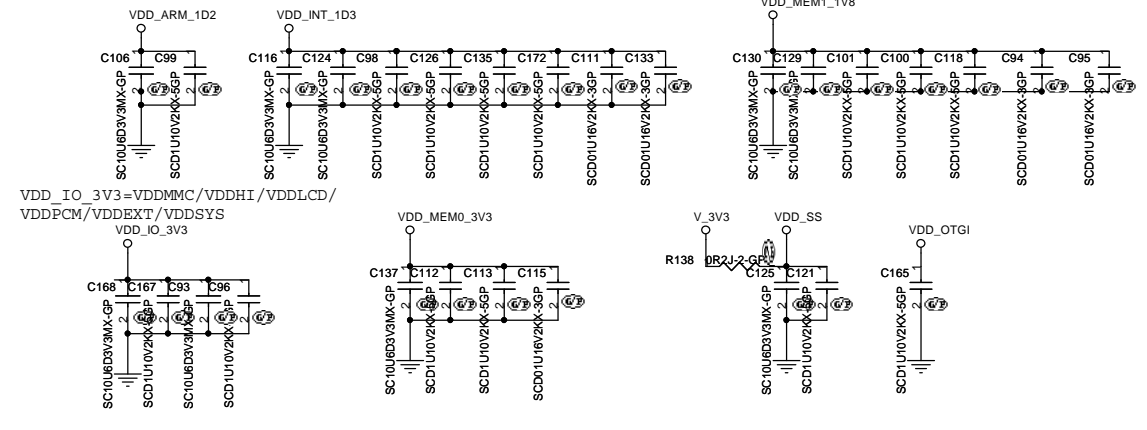
Size B: Document Number: **Aegean** Rev: **LAB**

Date: Monday, January 25, 2010 Sheet 4 of 25

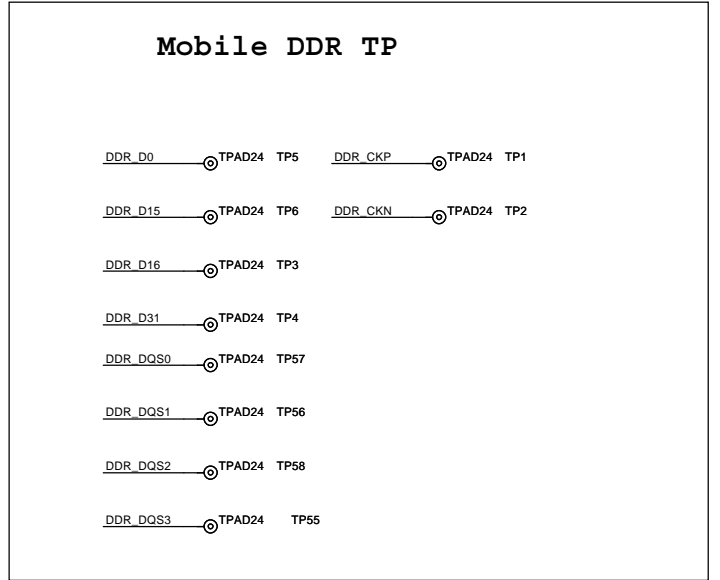
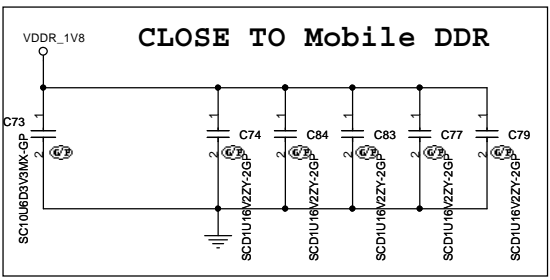
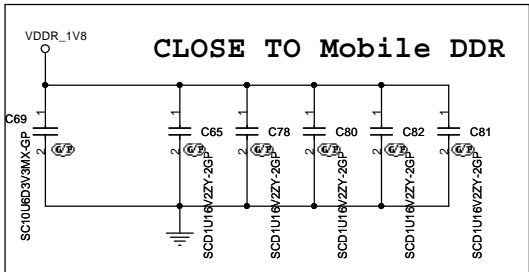
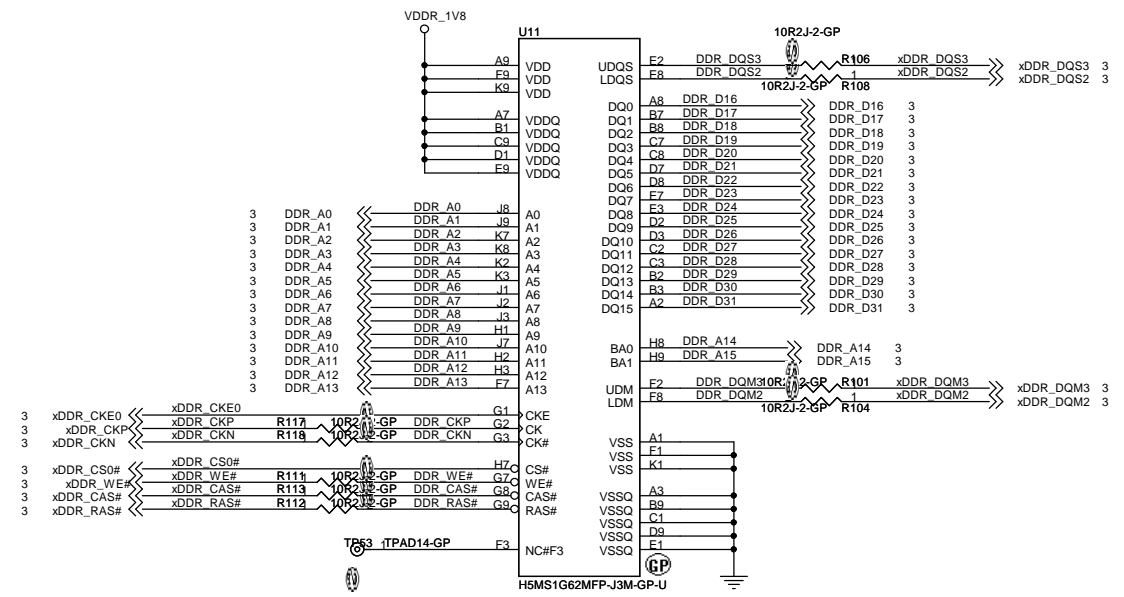
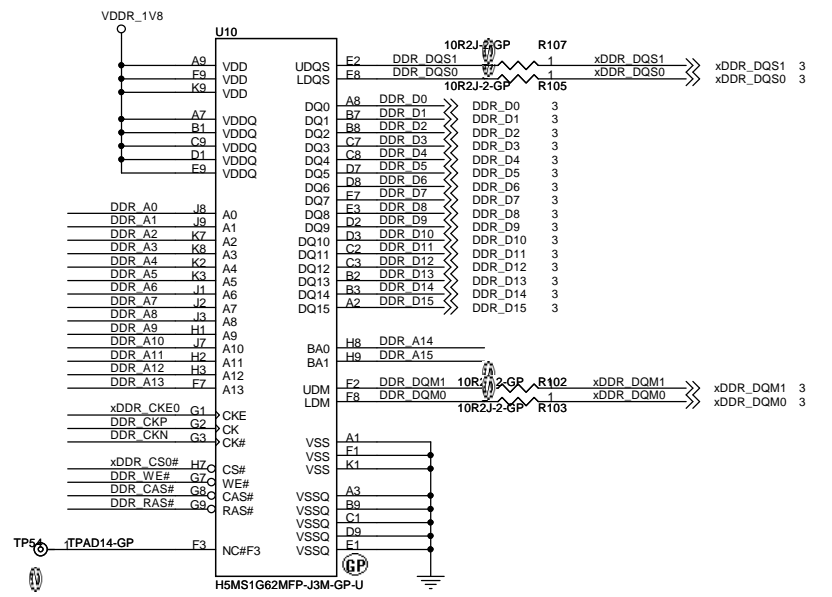


GPIO Power Domain:

GPIO	NO.	Power	Reset	Function
A	0-7	Vdd_EXT	I (Pull-D)	UART
B	0-6	Vdd_EXT	I (Pull-D)	UART1,DA,IC
C	0-3	Vdd_EXT	I (Pull-D)	SPI
D	0-7	Vdd_MMC	I (Pull-D)	MMC-2SPI
E	0-4	Vdd_PCM	I (Pull-D)	PCM,IS,AC97
F	0-4	Vdd_PCM	I (Pull-D)	PCM,IS,AC97
G	0-15	Vdd_EXT	I (Pull-D)	Camera,PWMLCK
H	0-6	Vdd_MMC	I (Pull-D)	MMC-0
I	0-9	Vdd_MMC	I (Pull-D)	MMC-1
J	0-15	Vdd_LCD	I (Pull-D)	LCD
K	0-11	Vdd_LCD	I (Pull-D)	LCD
L	0-15	Vdd_HI	I (Pull-D)	Host,HSI,Key
M	0-14	Vdd_HI	I (Pull-D)	Host,Key,EINT
N	0-4	Vdd_HI	I (Pull-D)	Host,EINT
O	5	Vdd_HI	O (H)	Host,EINT
P	0-15	Vdd_SYS	I (Pull-D)	EINT
Q	0-15	Vdd_MEM0	I show Pin	Memory (ROM)
R	0-14	Vdd_MEM0	I show Pin	Memory (ROM)
S	0-8	Vdd_MEM0	I show Pin	Memory (ROM)

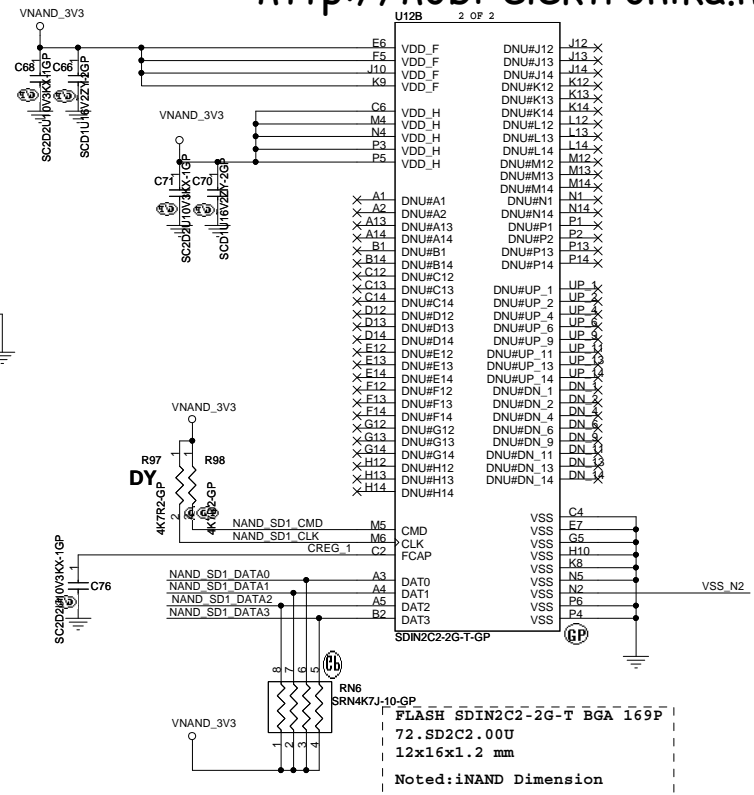
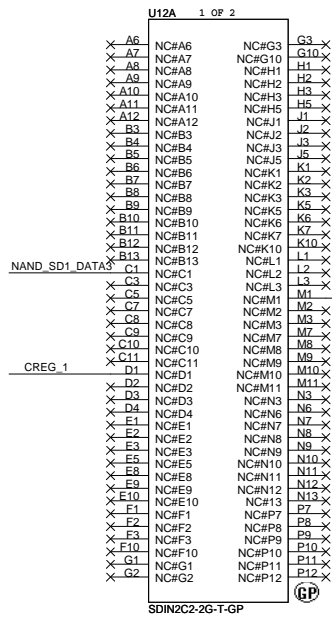


P/N: 20.F0893.002

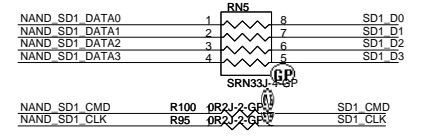


iNAND

<http://hobi-elektronika.net>

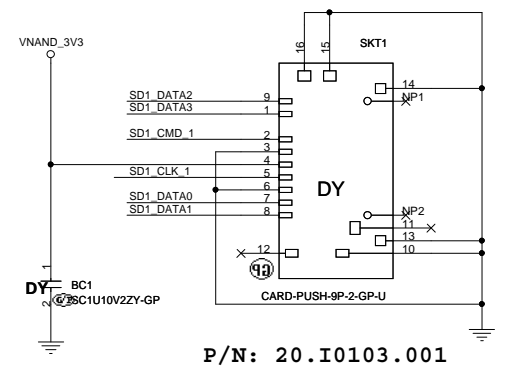
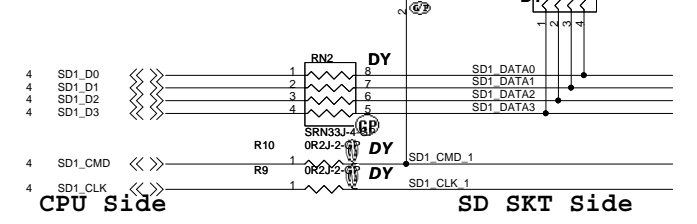


NAND Side CPU Side



FLASH SDIN2C2-2G-T BGA 169P
72.SD2C2.00U
12x16x1.2 mm
Noted:iNAND Dimension

Reserve for SD card boot



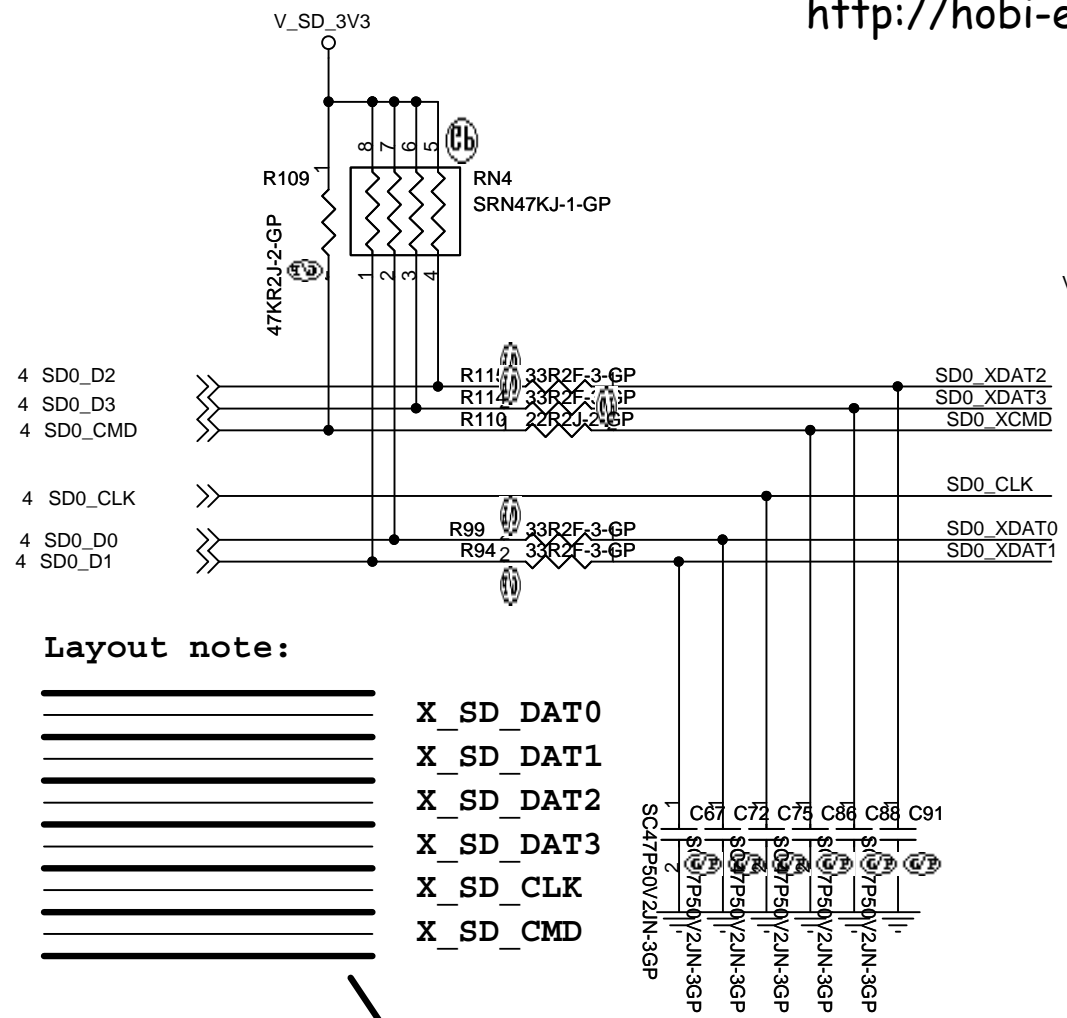
TOP SIDE

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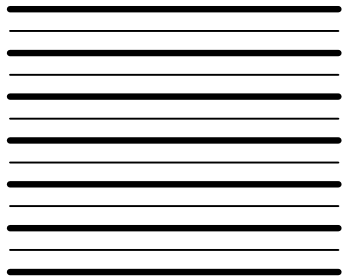
Title: iNAND FLASH

Size: Custom Document Number: Rev: LAB

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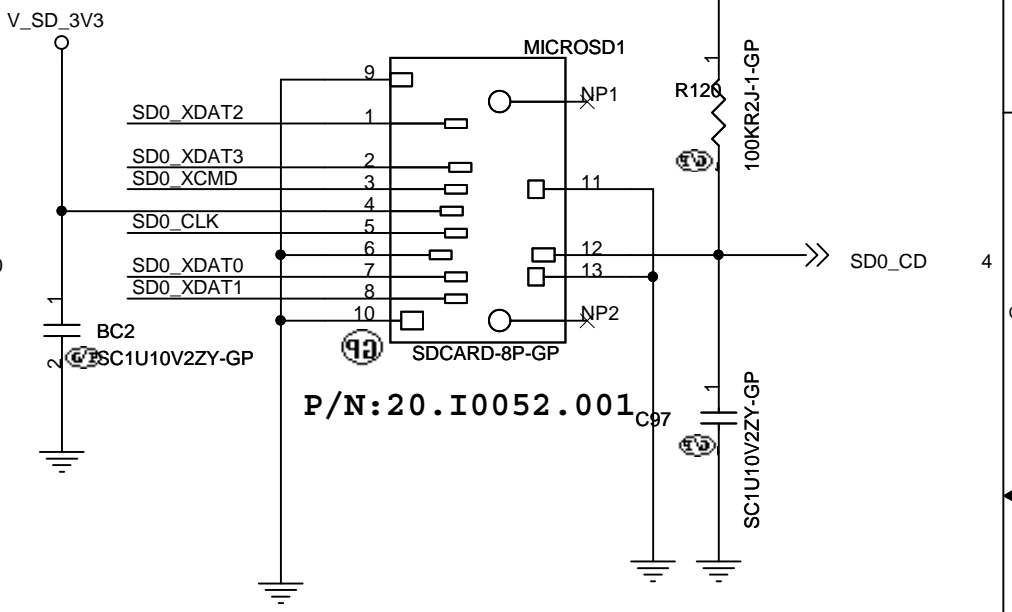


Layout note:



- X_SD_DAT0
- X_SD_DAT1
- X_SD_DAT2
- X_SD_DAT3
- X_SD_CLK
- X_SD_CMD

↓
GND Trace



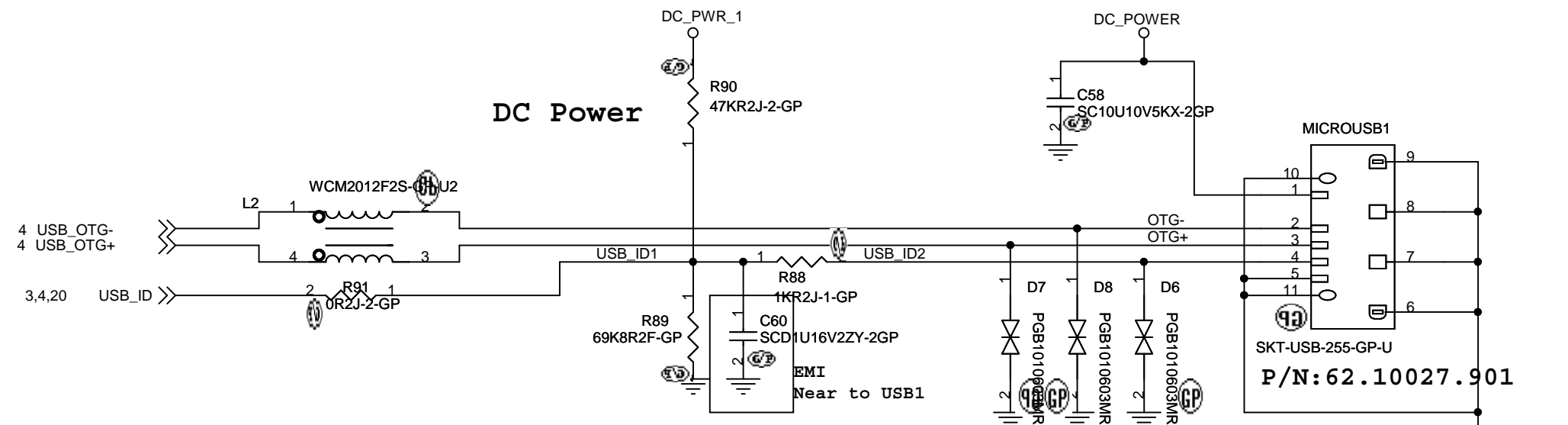
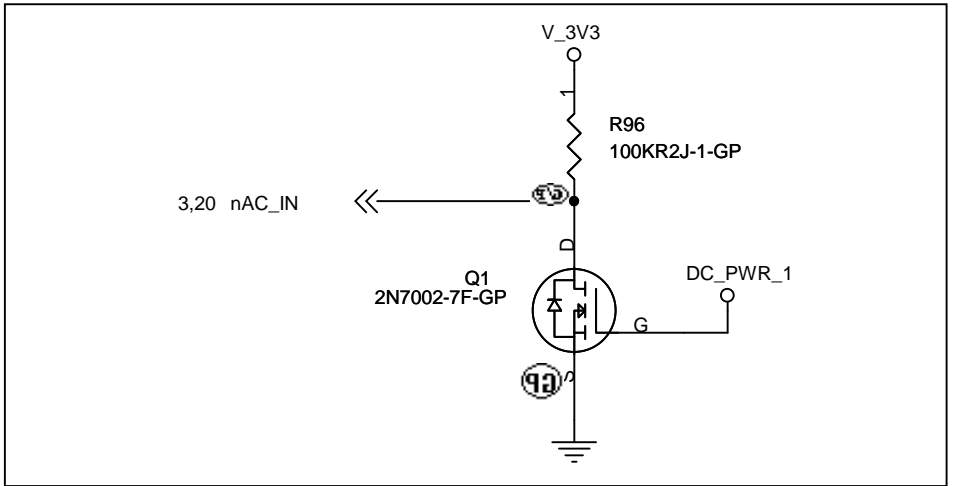
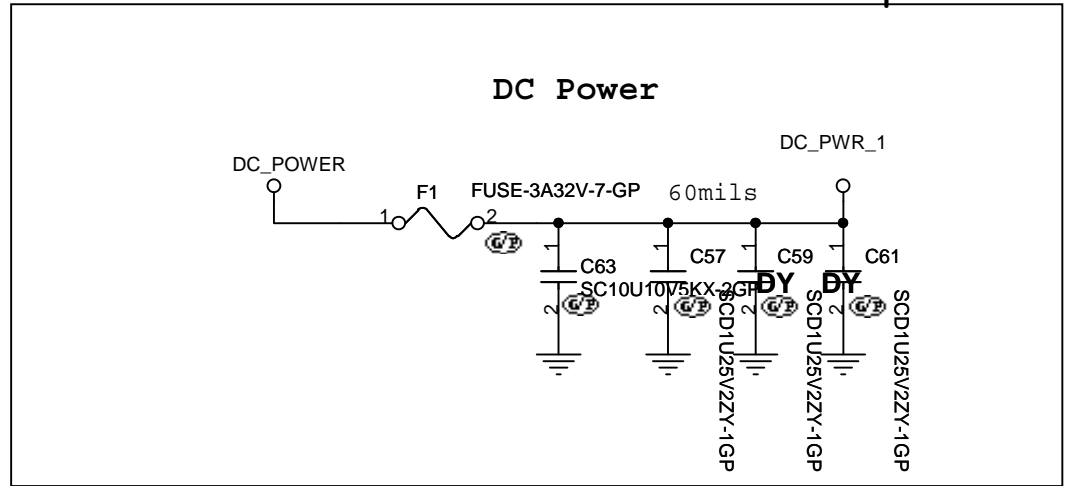
	CARD DETECT SWITCH (PIN 12)
W/O CARD	OPEN
CARD INSERTED	CLOSE

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Title: **SD CARD**

Size: A	Document Number: Agean	Rev: LAB
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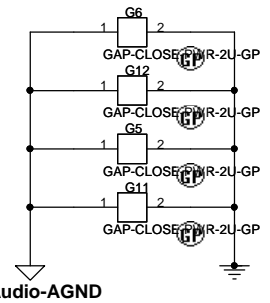
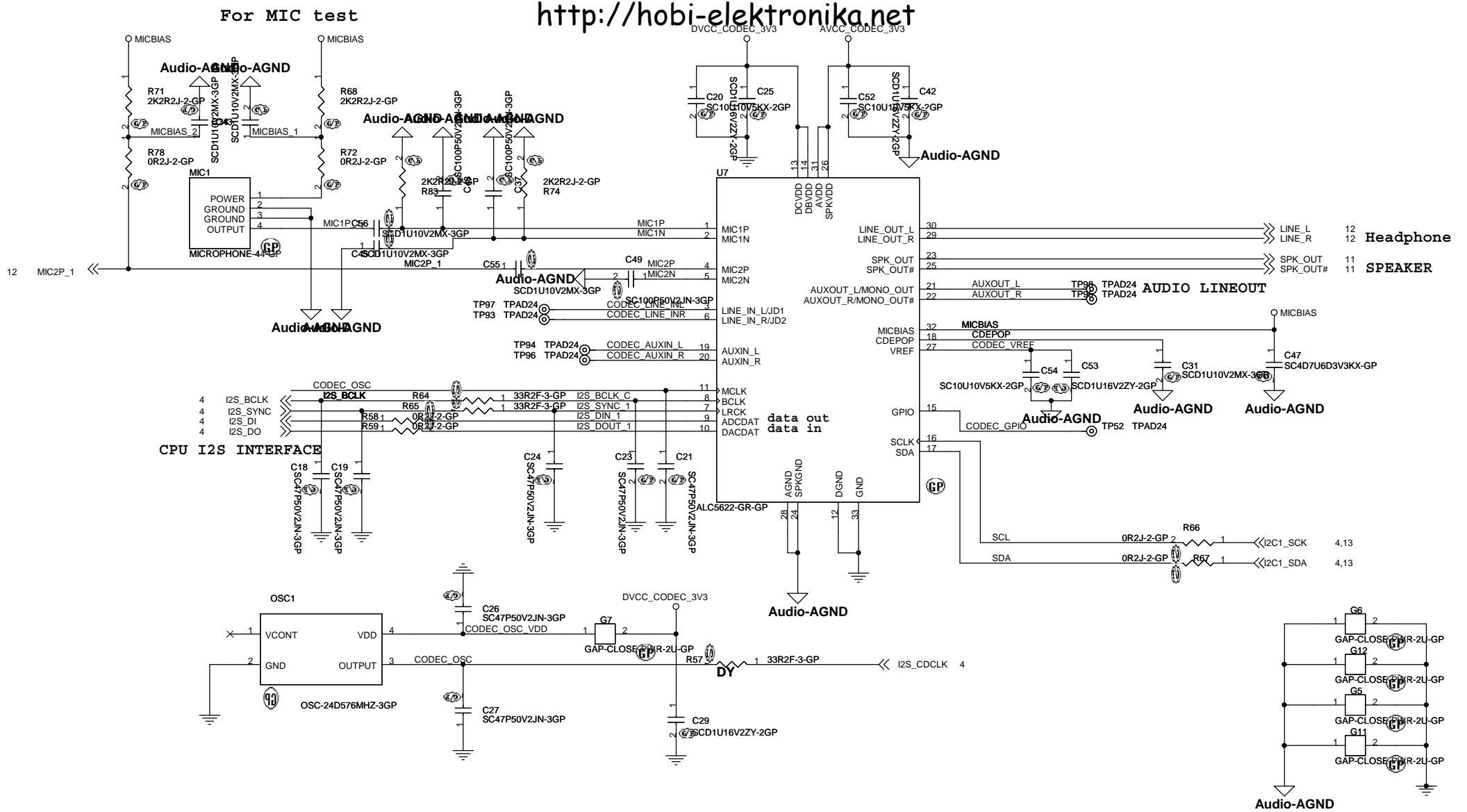
	USB_ID	nAC_IN	DC_PWR_1
USB IN	1	0	5V
AC IN	0	0	5V
NONE	0	1	0V

緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **USB Connector**

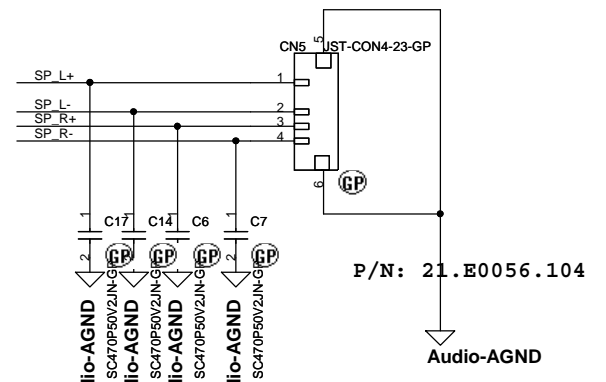
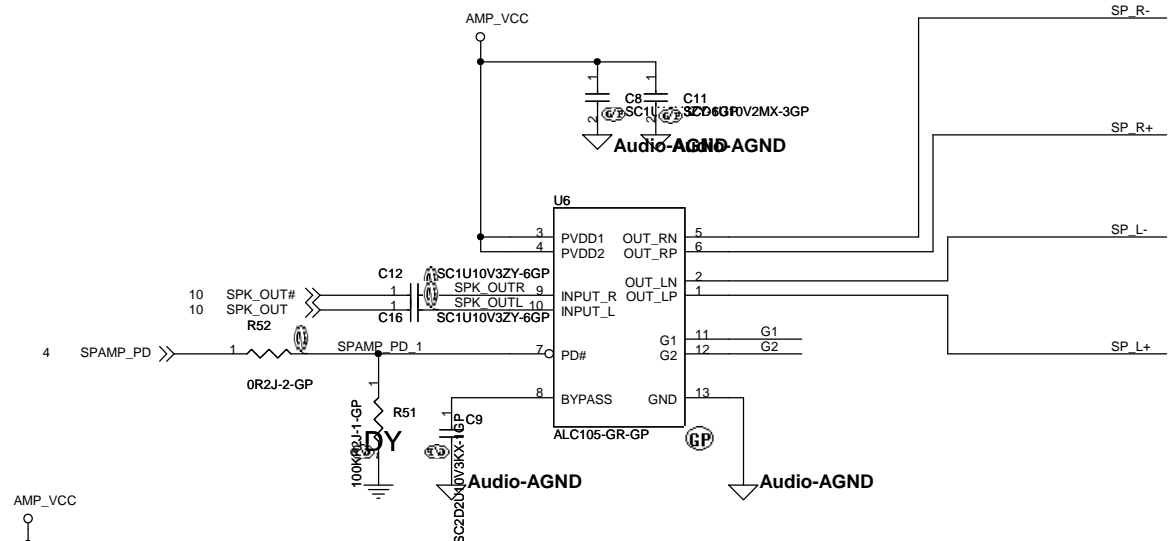
Size A Document Number **Agean** Rev **LAB**

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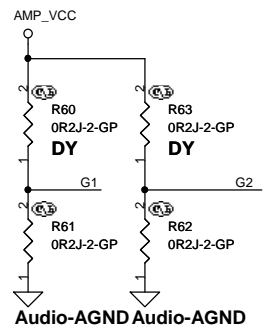


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Taipei Hsien 221, Taiwan, R.O.C.

Title Audio Codec		
Size B	Document Number Aegean	Rev LAB
Date: Monday, January 25, 2010	Sheet 10 of 25	

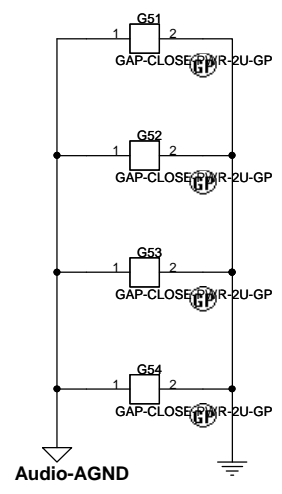
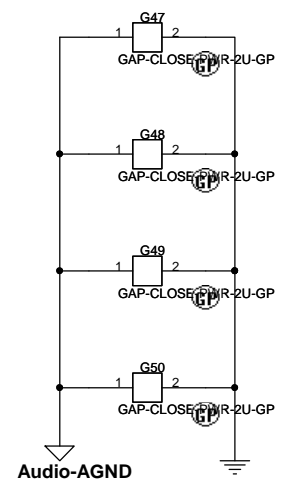


Reserve for EMI Depression
Close to connector



Output Gain Table

G1	G2	Gain(single_end)	Gain(Differential)
0	0	5dB	11dB
1	0	8dB	14dB
0	1	13dB	19dB
1	1	19dB	25dB

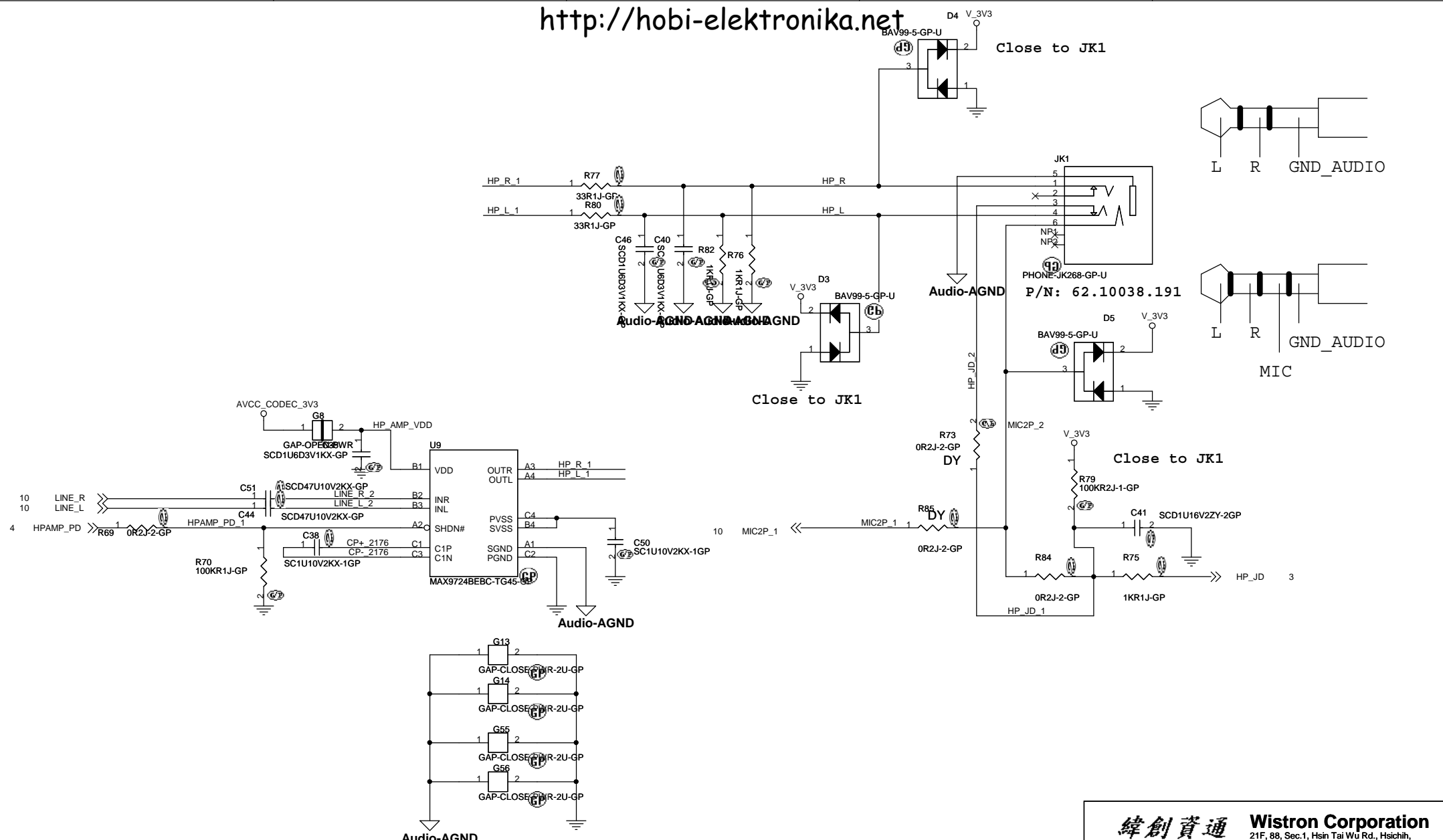



緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

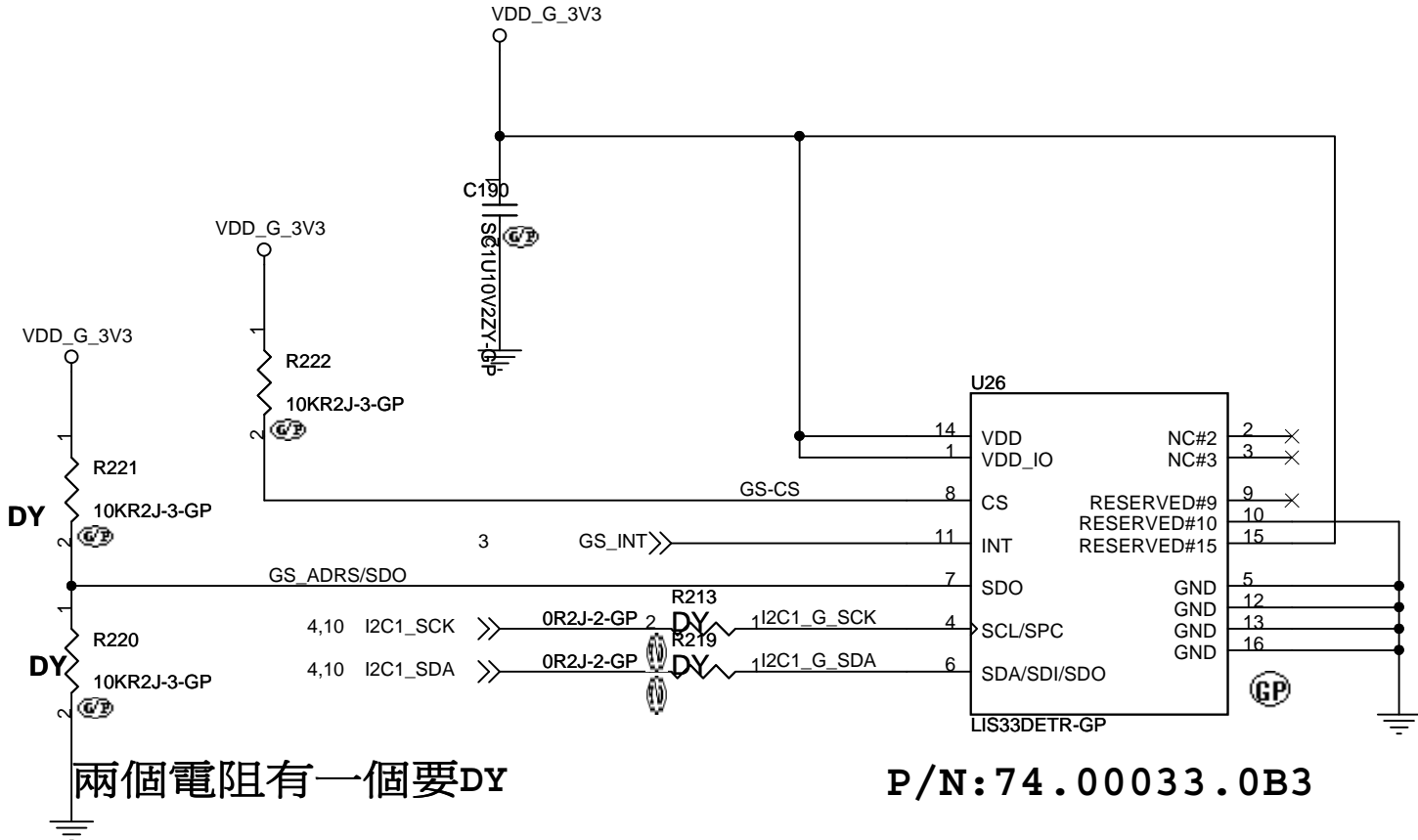
Title: **Audio SPK AMP**

Size B Document Number: **Agean** Rev: **LAB**

Date: Monday, January 25, 2010 Sheet 11 of 25



 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
HP JACK	
Title	Document Number
Size B	Rev LAB
Date: Monday, January 25, 2010	Sheet 12 of 25



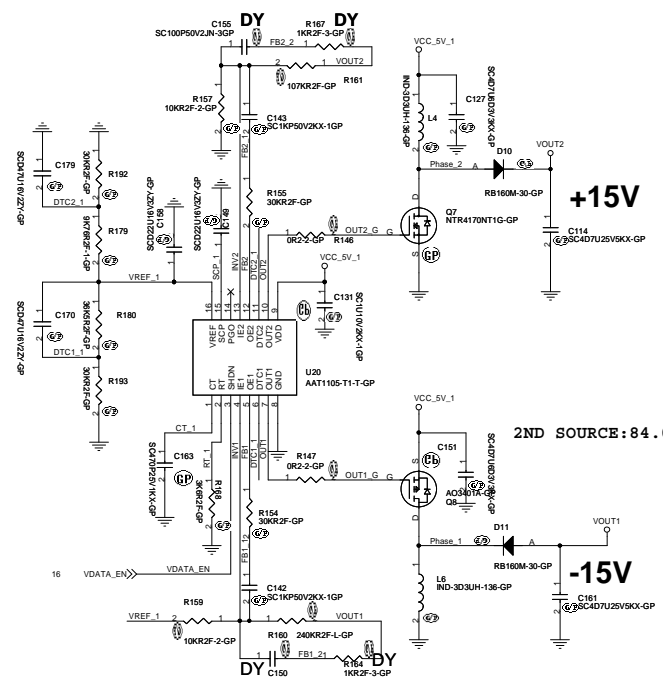
兩個電阻有一個要DY

P/N:74.00033.0B3

CS 0:SPI enable
 1:I2C mode

I2C
 1: 0011101b
 0: 0011100b

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		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
G-SENSOR			
Size A	Document Number		Rev
	Aegean		LAB
Date: Monday, January 25, 2010	Sheet 13	of	25

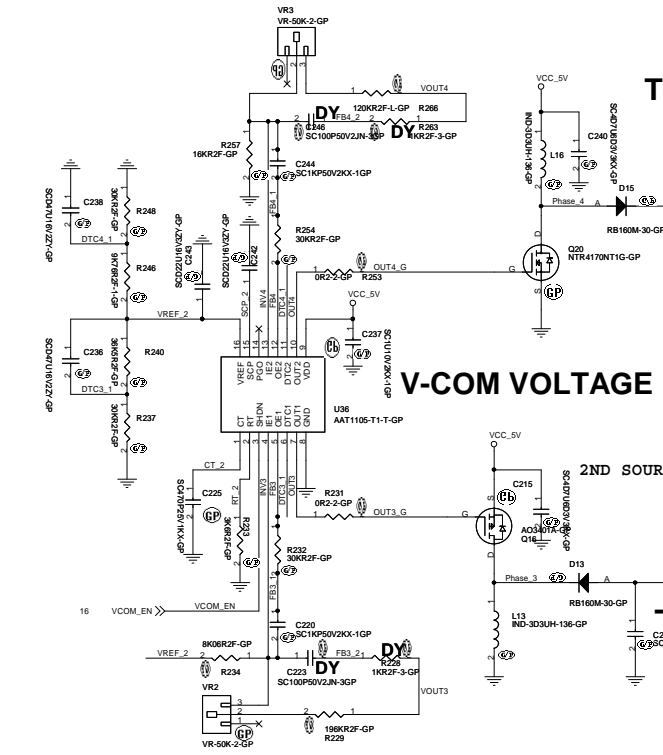


+15V

-15V

2ND SOURCE: 84.03401.B31

Min : 11V (VR3 = 0)
 Typical : 11.5V (VR3 = 6.3K)
 Max : 15V (VR3 = 50K)



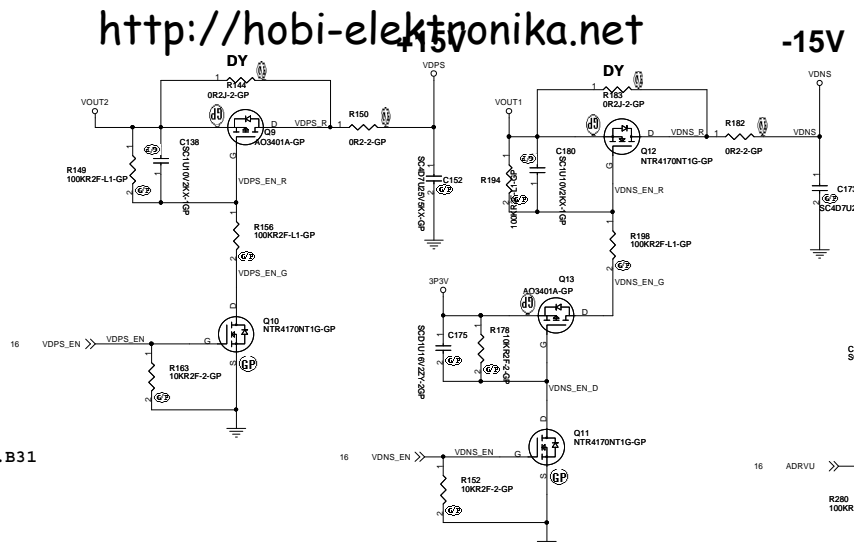
+11.5V

V-COM VOLTAGE

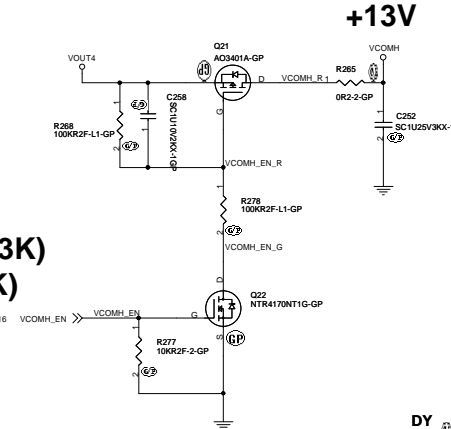
2ND SOURCE: 84.03401.B31

-18.5V

Min : -19.25V (VR4 = 50K)
 Typical : -18.5V (VR4 = 40.6K)
 Max : -15.25V (VR4 = 0)

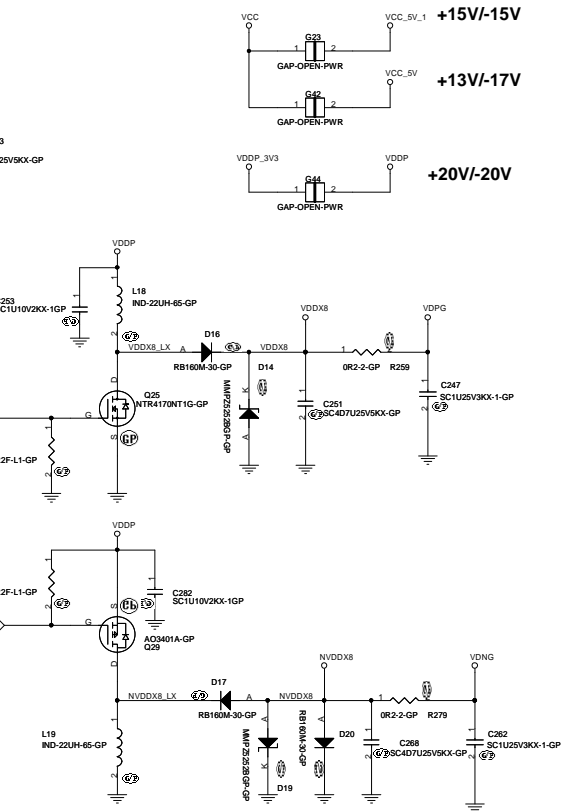
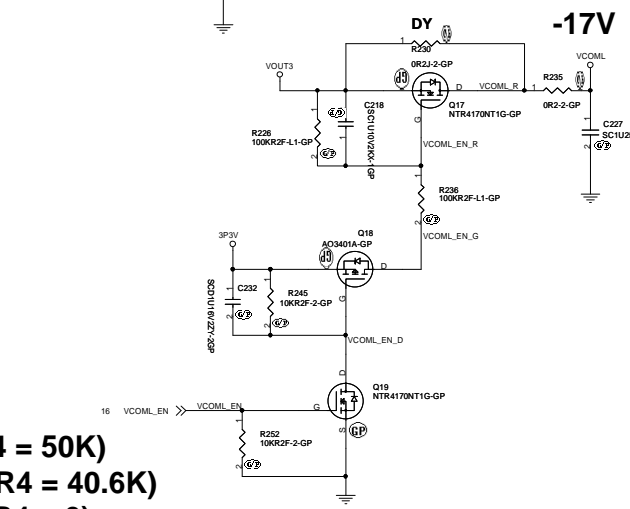


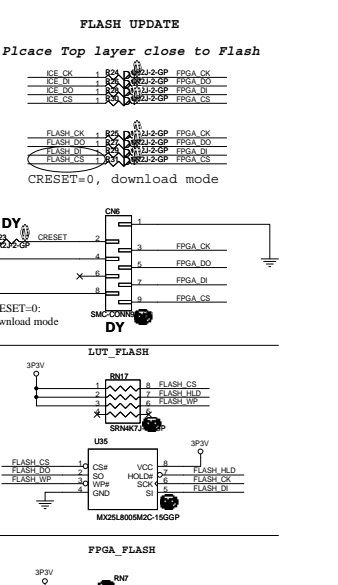
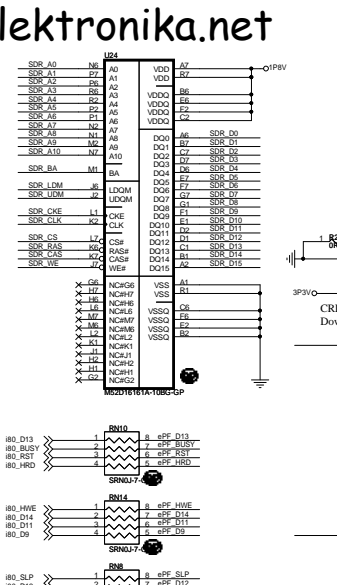
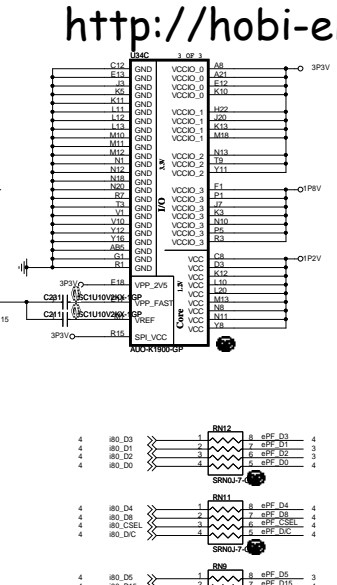
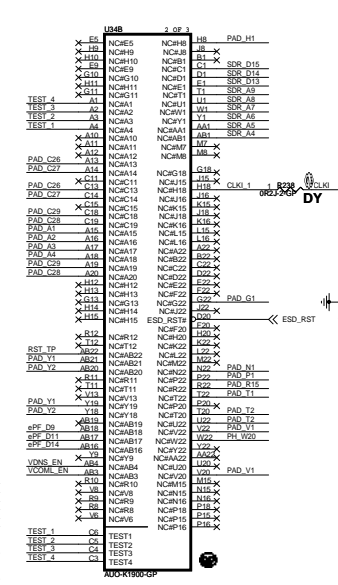
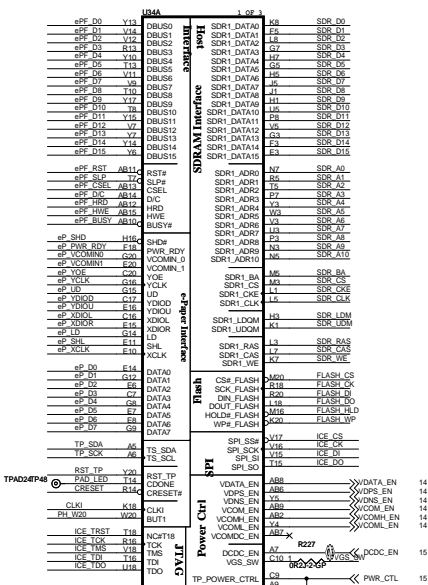
+13V



+13V

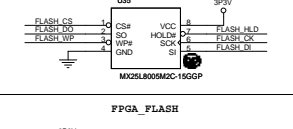
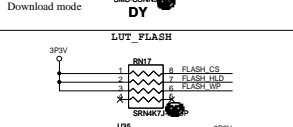
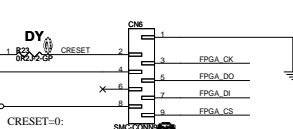
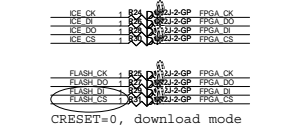
-17V



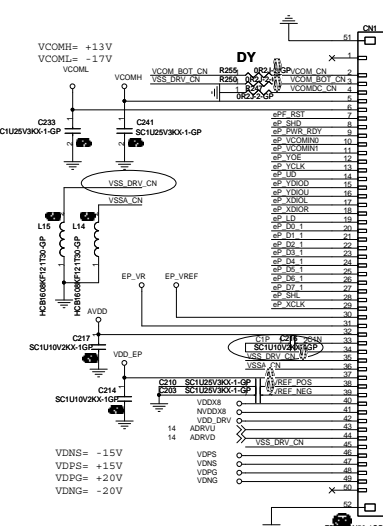


FLASH UPDATE

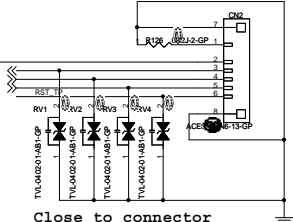
Place Top layer close to Flash



e-Paper Connector



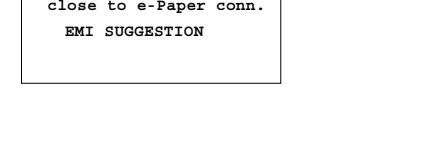
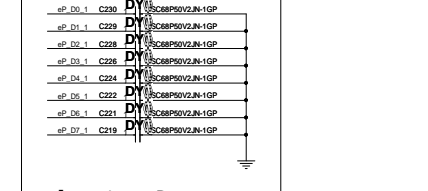
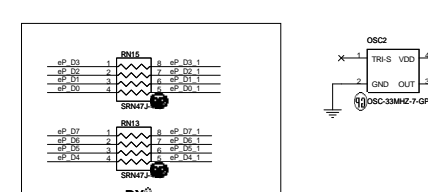
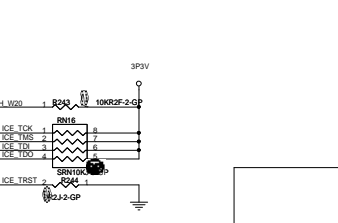
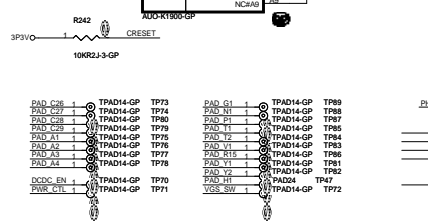
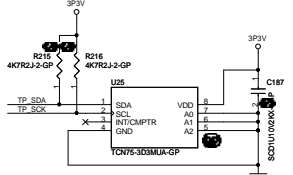
Touch Panel: 3.3V

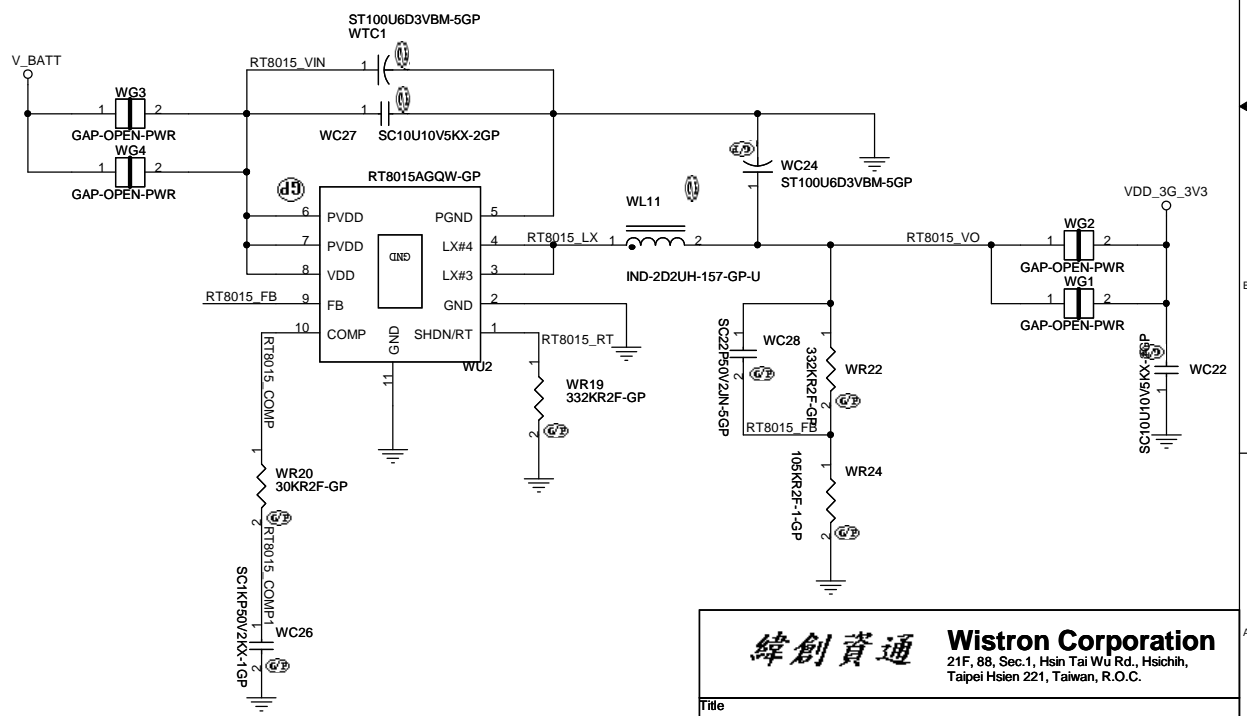
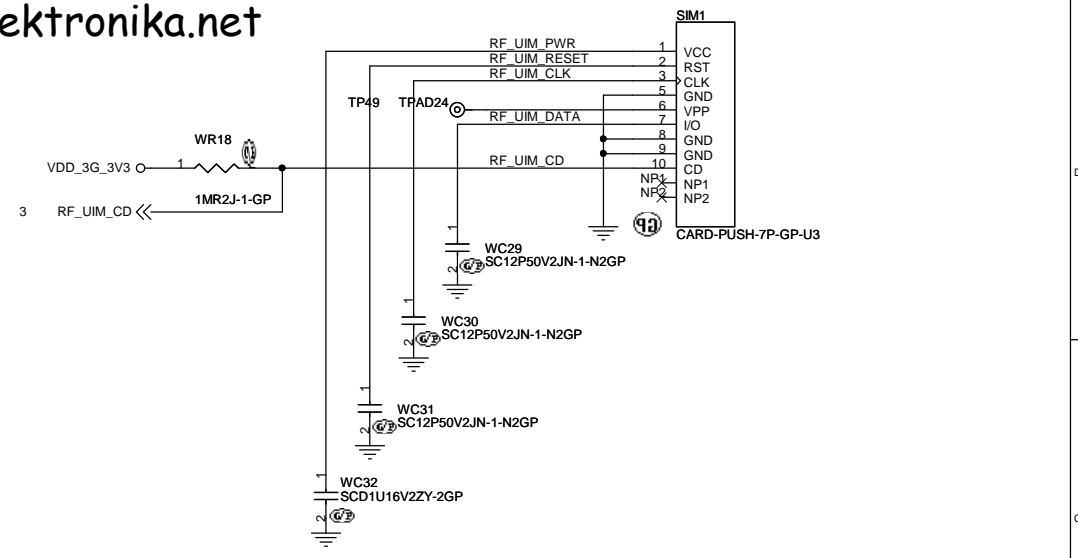
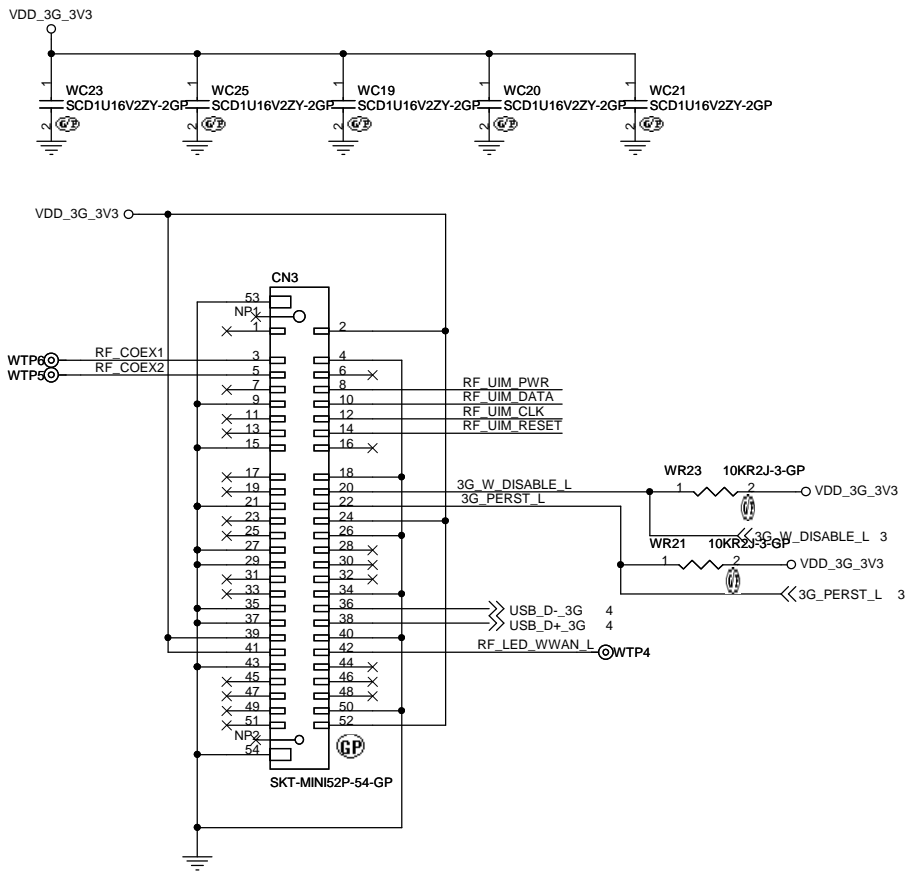


Close to connector



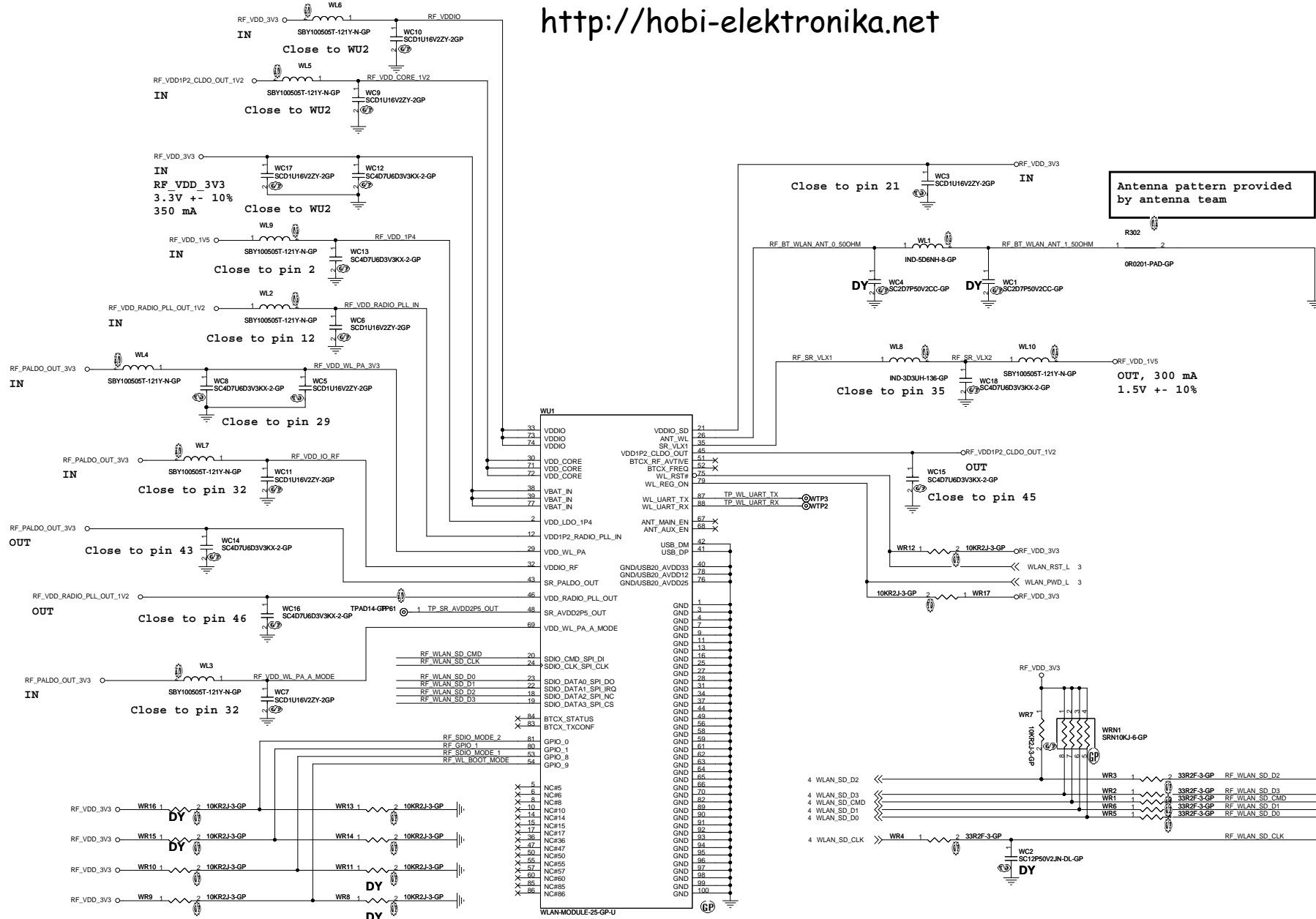
Temperature Sensor





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Title MiniCard+3.5G		
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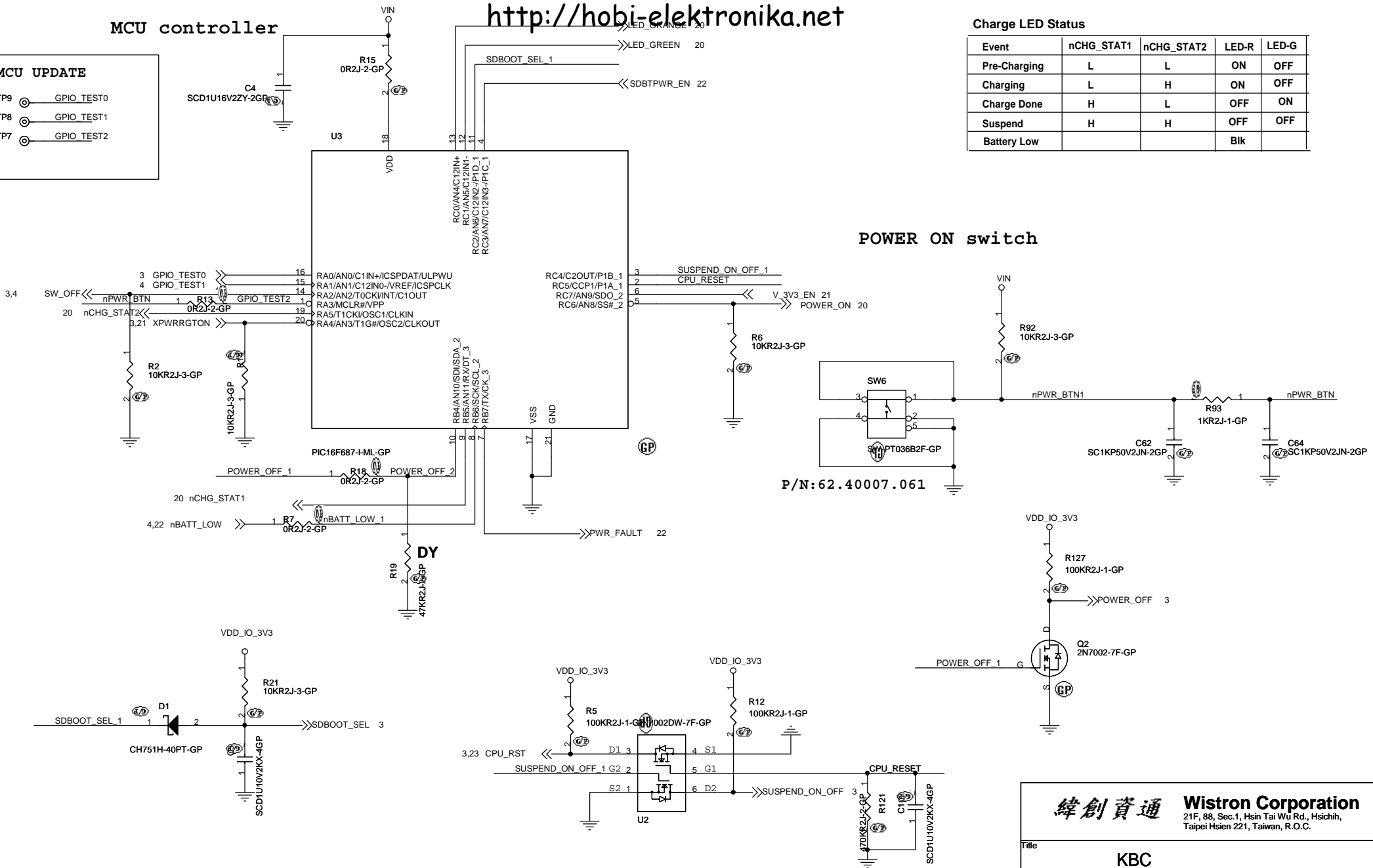
MCU controller

MCU UPDATE

TPAD24 TP9 $\text{\textcircled{C}}$ GPIO_TEST0
 TPAD24 TP8 $\text{\textcircled{C}}$ GPIO_TEST1
 TPAD24 TP7 $\text{\textcircled{C}}$ GPIO_TEST2

Charge LED Status

Event	nCHG_STAT1	nCHG_STAT2	LED-R	LED-G
Pre-Charging	L	L	ON	OFF
Charging	L	H	ON	OFF
Charge Done	H	L	OFF	ON
Suspend	H	H	OFF	OFF
Battery Low			BIK	

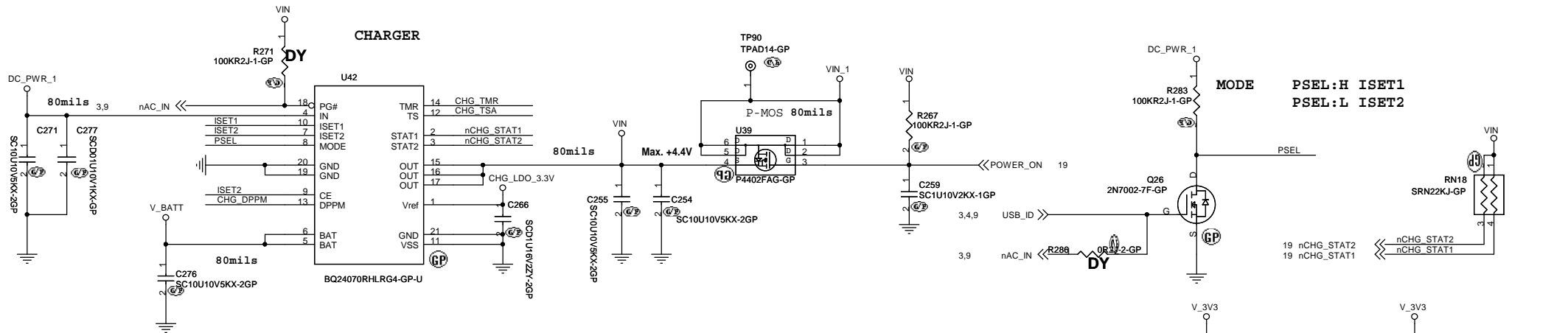


POWER ON switch

P/N: 62.40007.061

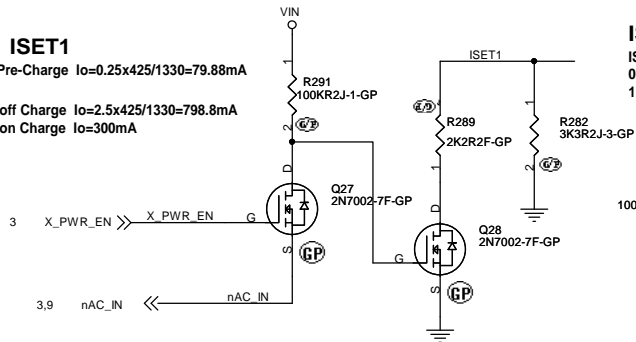
緯創資通 **Wistron Corporation**
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 Taipei Hsien 221, Taiwan, R.O.C.

Title			KBC		
Size B	Document Number				Rev
Aegean					LAB
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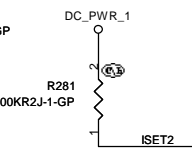


ISET1
Pre-Charge $I_o = 0.25 \times 425 / 1330 = 79.88 \text{mA}$

power off Charge $I_o = 2.5 \times 425 / 1330 = 798.8 \text{mA}$
power on Charge $I_o = 300 \text{mA}$



ISET2
ISET2 (USB Charge Current)
0: 100mA
1: 500mA

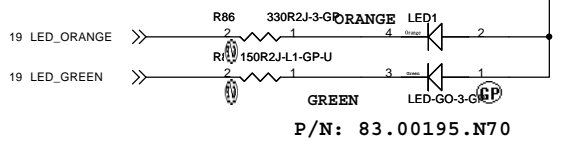
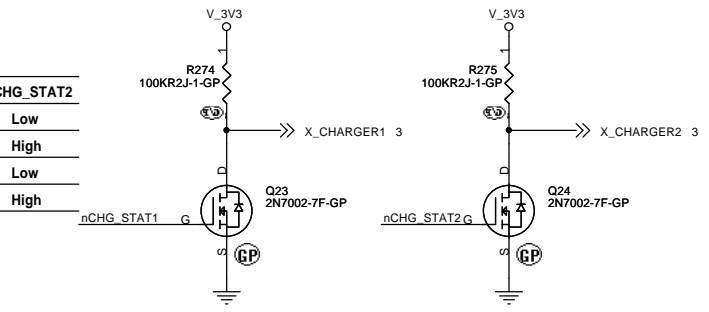


Charge Status

Event	nCHG_STAT1	nCHG_STAT2
Pre-Charging	Low	Low
Charging	Low	High
Charge Done	High	Low
Suspend	High	High

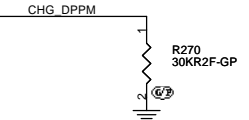
LED FUNCTION TABLE

Event Description	LED Status
System On	Off
Battery Charging	ORANGE
Charging Complete	Green

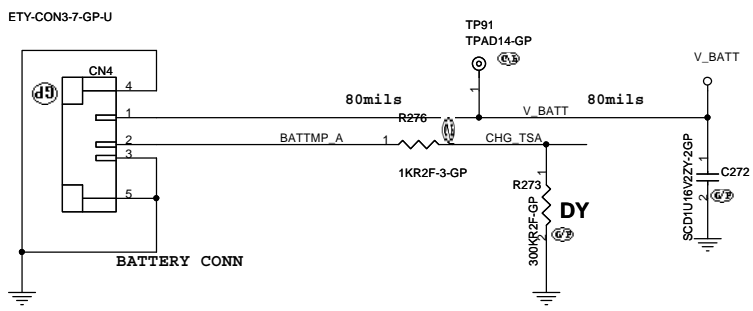
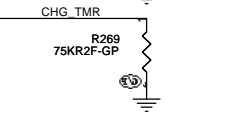


P/N: 83.00195.N70

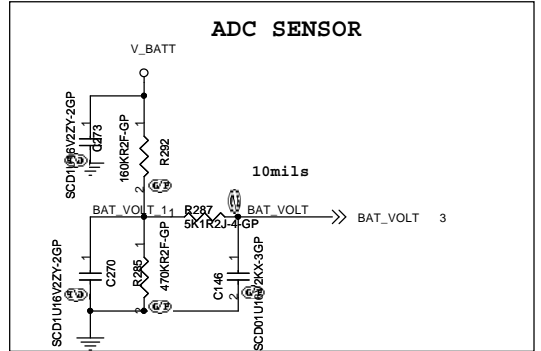
DPPM
 $V_{dppm} = I_{dppm} \times R_{dppm} \times SF$
 $= 100 \mu \times R \times 1.15$



TMR
 $T_{mr} = K_{tmr} \times R = 0.36 \times 75000 = 7.5 \text{HR}$
 $T_{prechg} = K_{tmr} \times R \times 0.1 = 0.36 \times 75000 \times 0.1 = 45 \text{min}$



Change to FOCLINK P/N:20.F1511.003



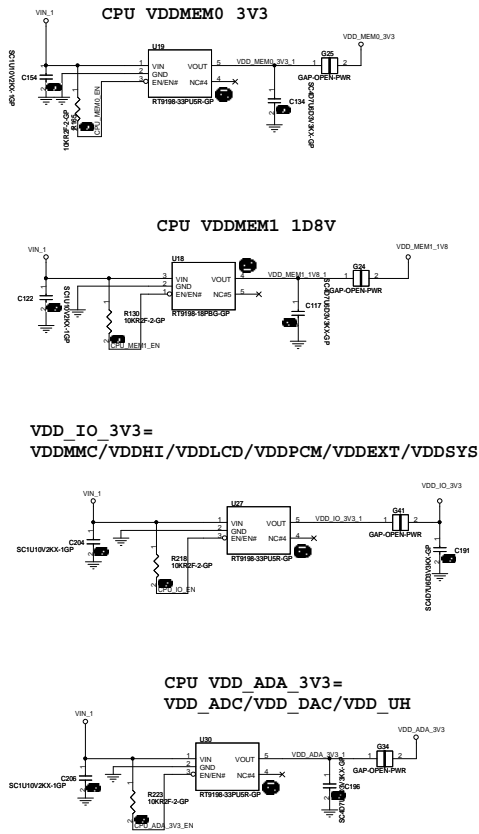
AC exist / System Off -----> Charging Current = 800mA
AC exist / System On -----> Charging Current = 300mA
USB exist / System Off -----> Charging Current = 400mA
USB exist / System On -----> Charging Current depend on DPPM function (under 400mA)

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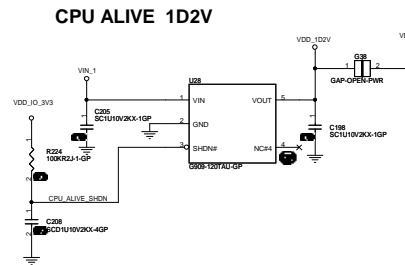
CHARGER

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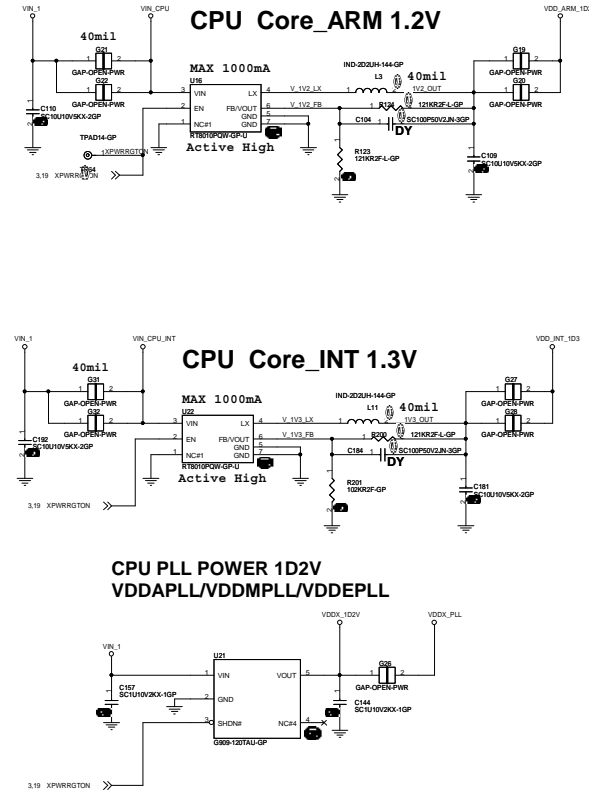
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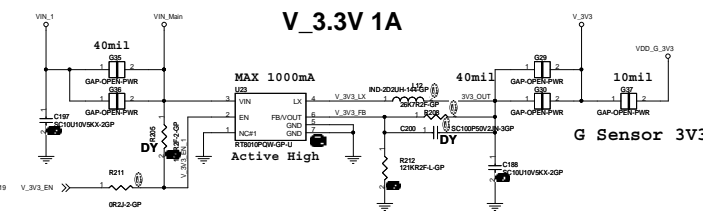
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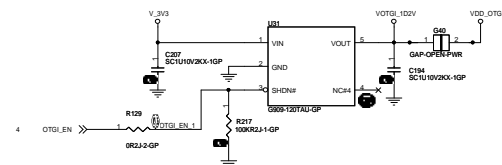
3



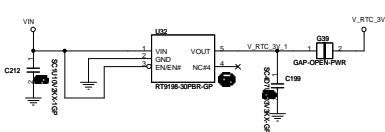
V_3.3V 1A



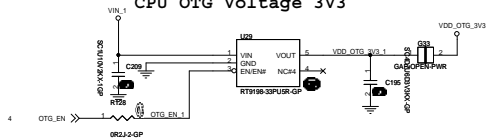
CPU OTGI POWER 1D2V



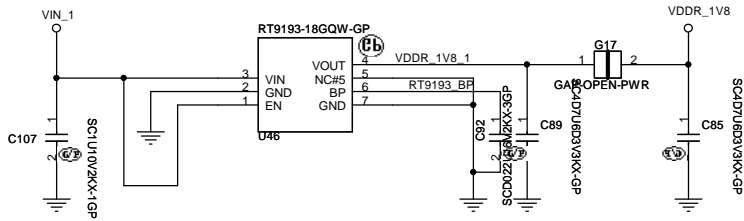
CPU VRTC 3V



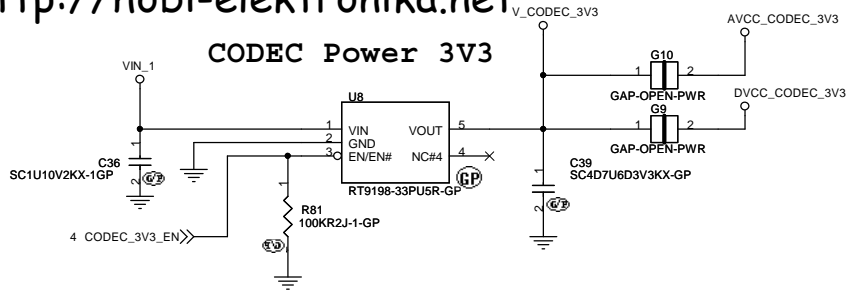
CPU OTG Voltage 3V3



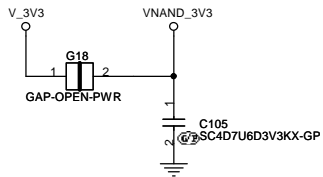
MDDR 1D8V



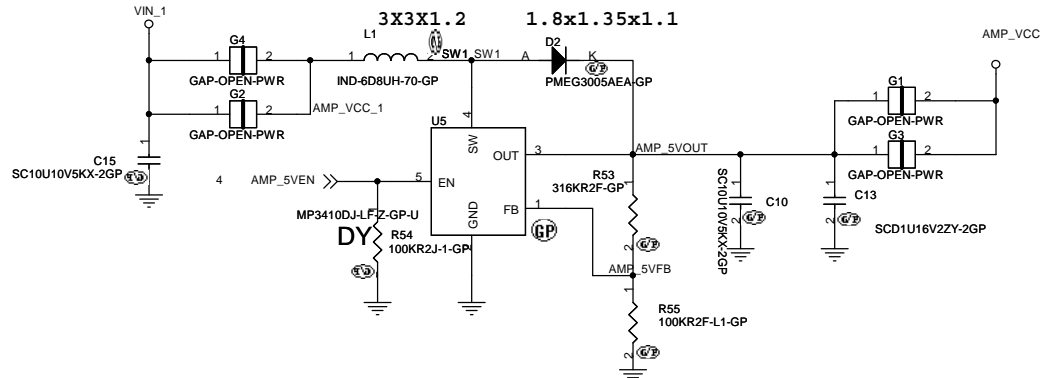
CODEC Power 3V3



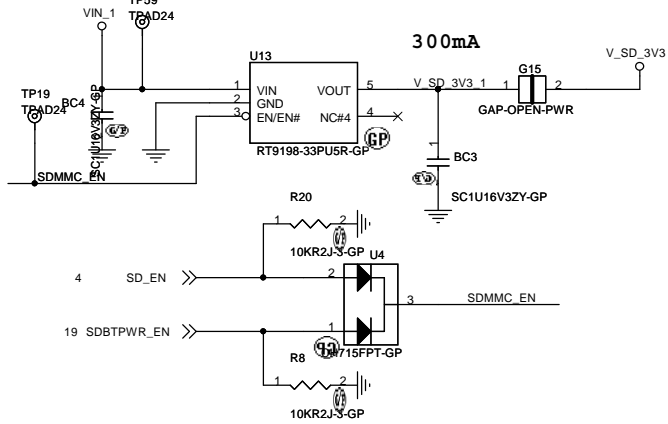
INAND Power 3V3



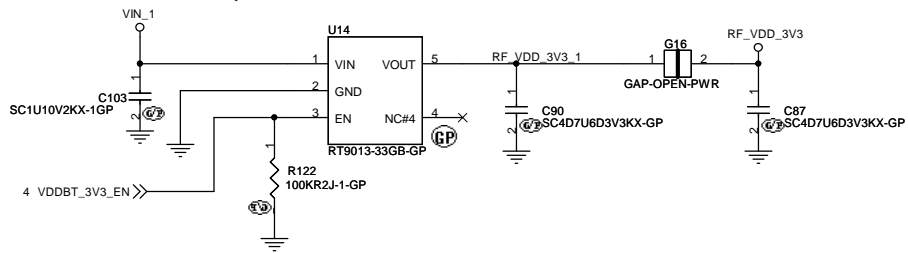
AMP POWER 5V



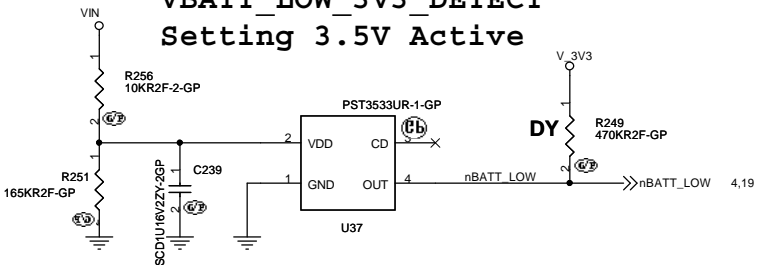
SD/MMC POWER 3.3V



BT/WLAN Power 3V3 500mA

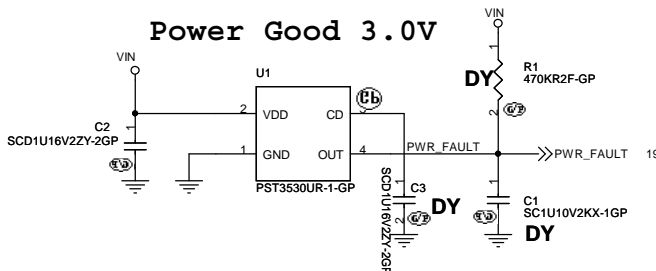


VBATT_LOW_3V3_DETECT
Setting 3.5V Active

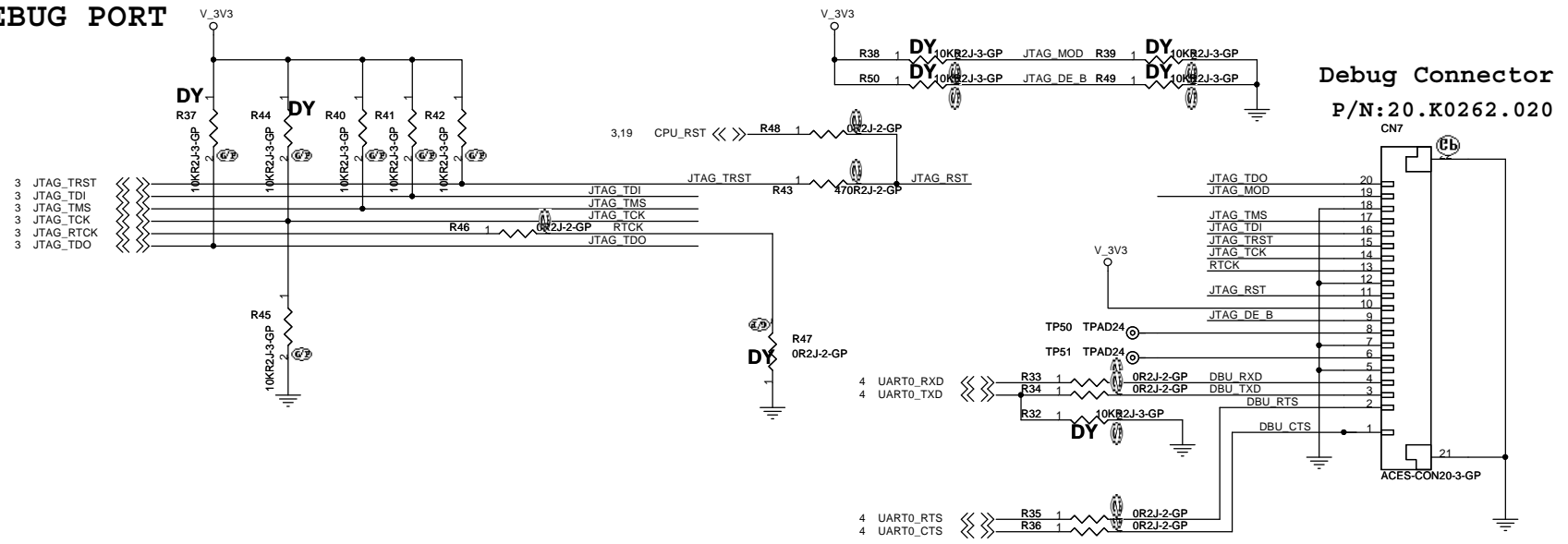


BATTERY FAULT

Power Good 3.0V

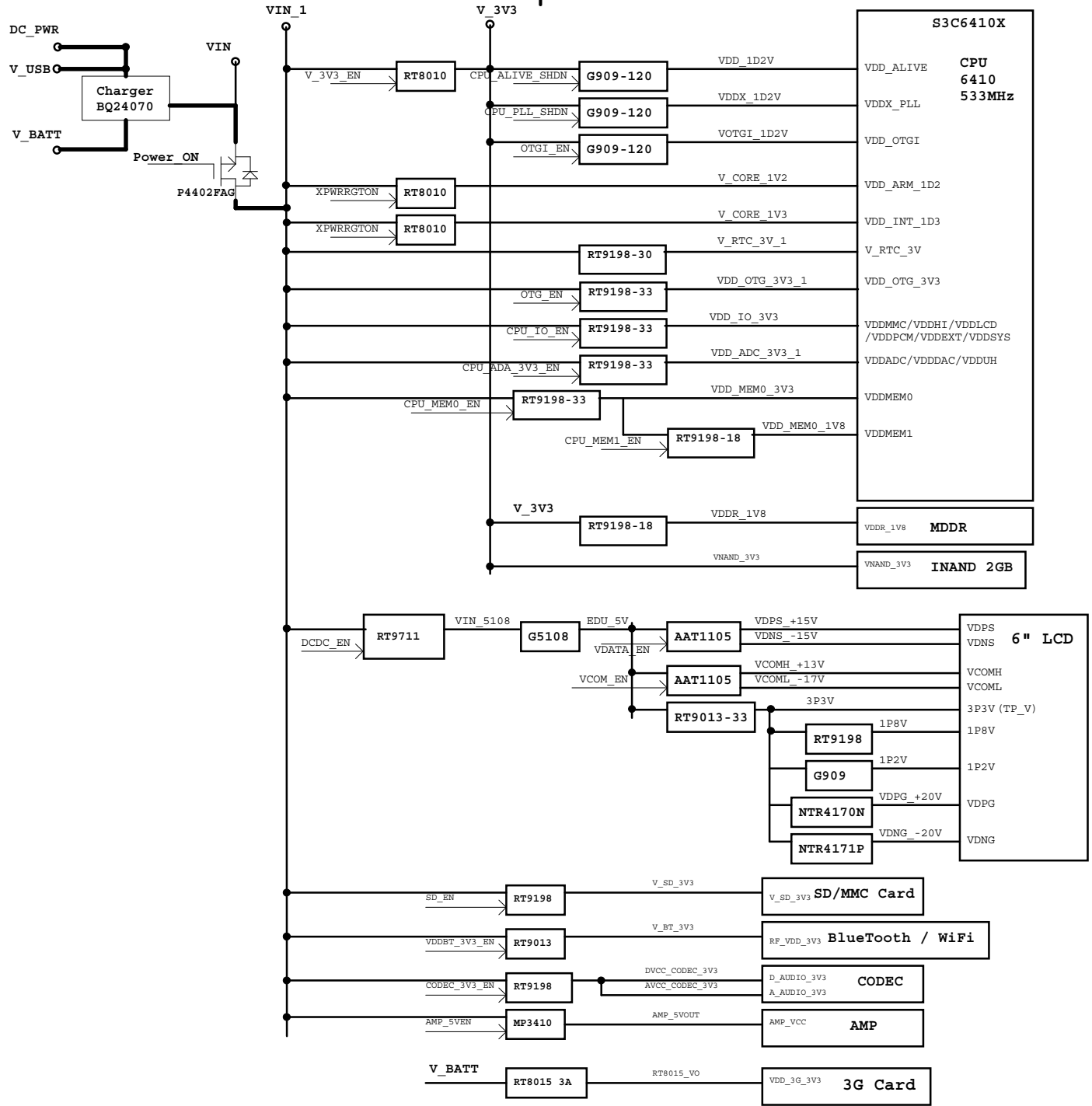


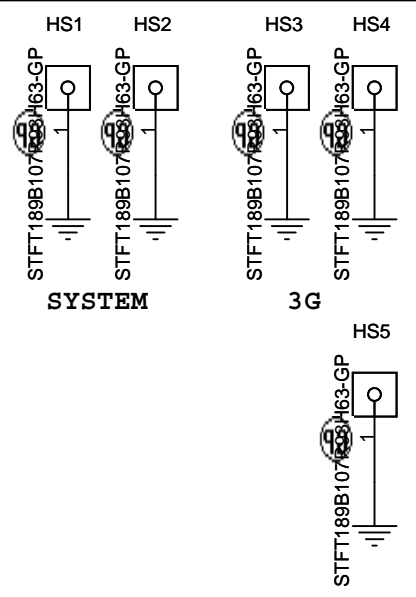
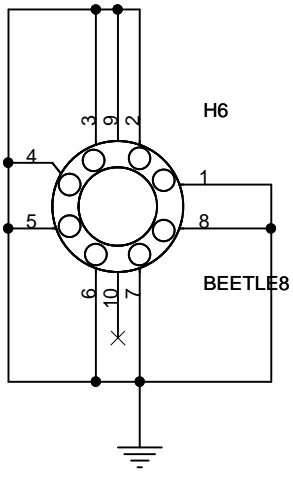
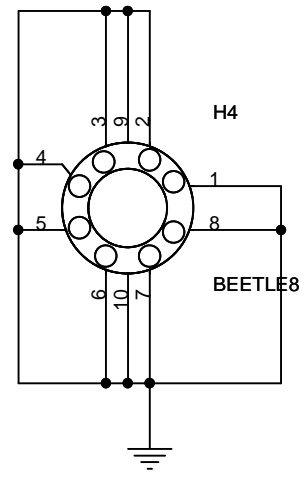
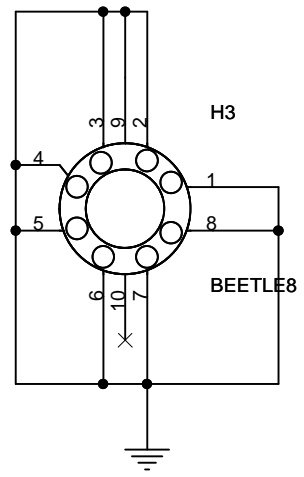
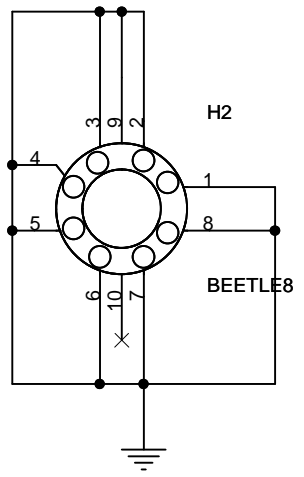
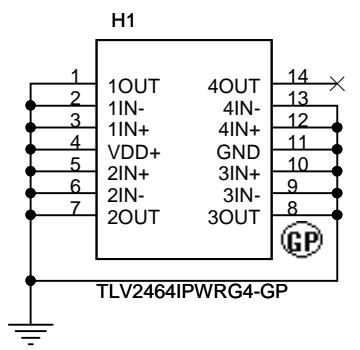
JTAG DEBUG PORT



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