

DATE	Description	Modify By
2012/8/1	Initial	Jacky_Kuo
2012/11/5	1.DEL all circuit related to WB40. 2.Page3, pull down U2 pin44 with a 10k ohm resister - R163. 3.Page4, modified Q1 to PMOS. 4.Page6, Change R96, R100, R101, R102, R104, R106, R107, R108, R110 to 1k ohm. 5.Page7, removed codec circuit and reserved a 10pins header. 6.Page7, modified net name "3V3_PCM" to "+3V3_PCM". 7.Page8, add a 3.3V supply rail for single PHY circuit. 8.Page8, added a jumper CON66 for "+3V3_ETH" rail. 9.Page8, change the U26' VIN from "+3V3" to "+5V". 10.Page8, added a jumper CON67 for "+3V3" rail. 11.Page9, fixed D24 and C151 polarity. 12.Page9, added a CON72 for test fixture power On/Off switch.	Jacky_Kuo
2012/12/5	1.Page6, change D10 footprint to correct LED type. 2.Page8, Del. Q2 & Q3	Jacky_Kuo
2012/12/20	1.Page9, change D23 symbol to meet SOD-323 footprint. 2.Page9, change CON72 to 1x3 pin header. 3.Page9, change U27 to RT7247B 4.Page2, correct J1 pin number to meet WB45 J4	Jacky_Kuo
2013/01/07	1.Page6, pull down R99 to GND for the U17 write operation. 2.Page7, change CON52 to 1x6 pin header with 2.0mm pitch. 3.Page7, change CON65 pin assignment to meet CODEC board.	Jacky_Kuo
2013/05/31	1.Page6, modifies U16 supplies rail from +3V3 to +1V8B	Jacky_Kuo
2013/06/19	1.Page8, modifies U26 VIN supplies rail from +5Vto +3V3 (For the both antenna holes which they're need to add hole ring with solder-mask layer)	Jacky_Kuo
2013/08/29	1.Page4, modified R45 and R46 to 0 ohm.	Jacky_Kuo

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5F, No.257, Dong Sec. 1 Guangming 6th Rd.,
Zhubei City, Hsinchu County, Taiwan

Title

BB45NBT

Size

Document Number

Rev

A4

History

1.0

Date:

Thursday, August 29, 2013

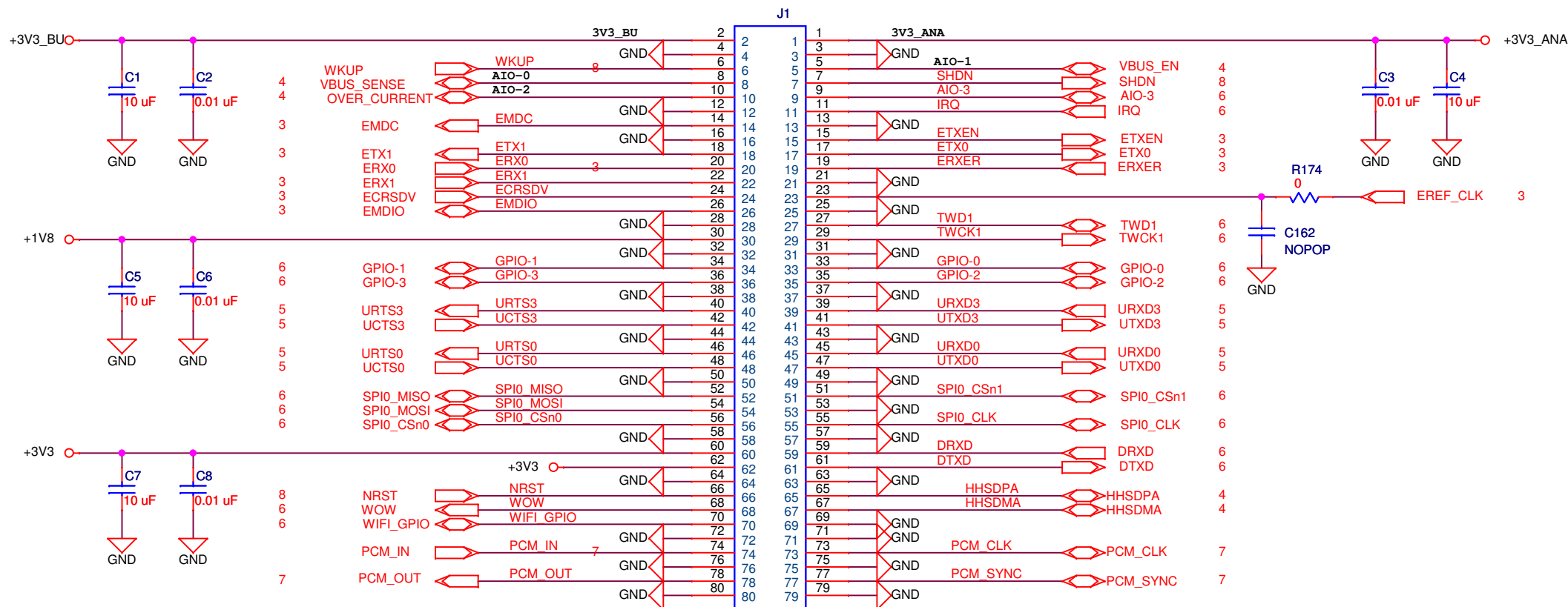
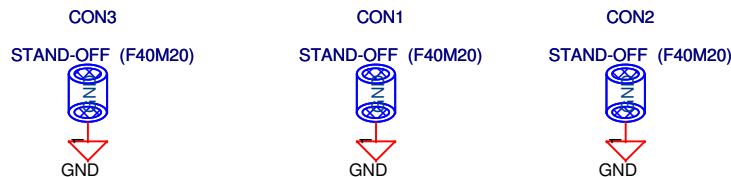
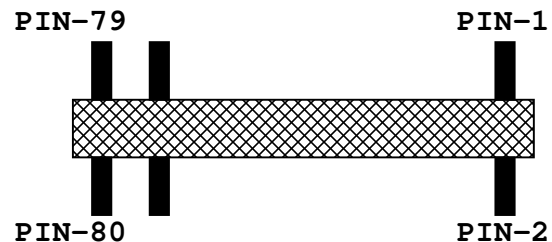
Sheet

1

of

9

BB PCB PIN OUT (TOP VIEW)



55560-0807

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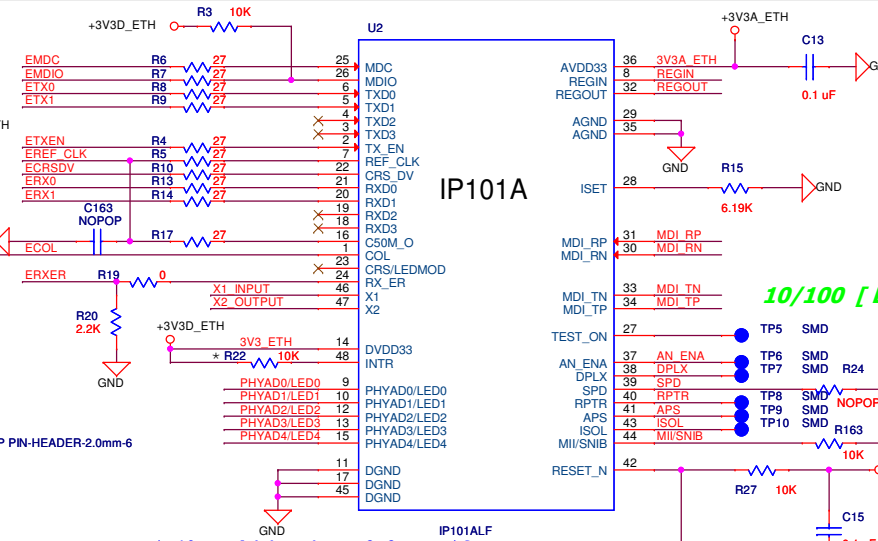
B2B Connector

Rev
1.0

Date: Thursday, August 15, 2013

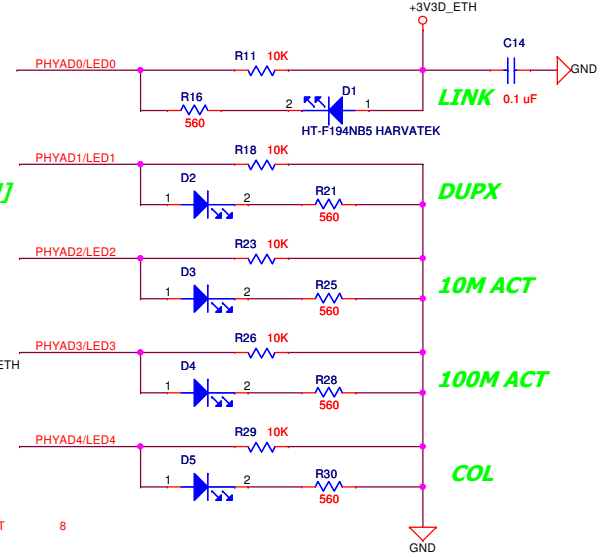
Sheet 2 of 9

Set IP101A to RMII Mode



LED and PHY address Configuration

This schematic sets PHY address to 00001



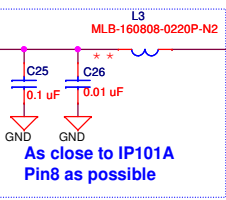
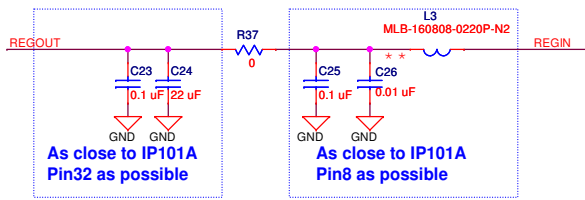
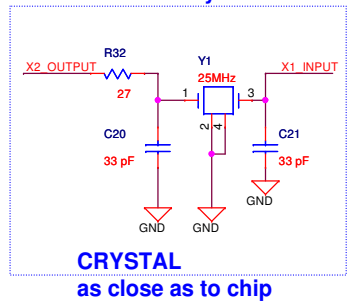
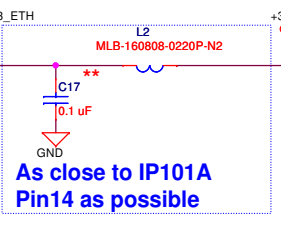
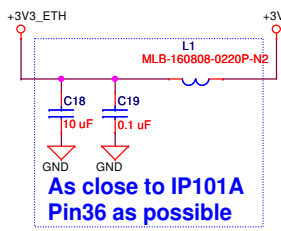
Pin48 could be short 3V3_ETH if interrupt function is not used.

Hardware Configuration network:

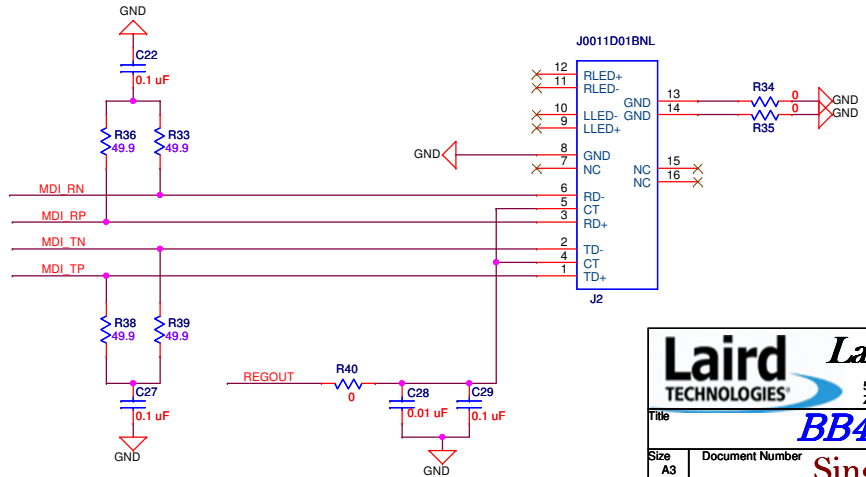
- This configuration shows Enable: Auto negotiation, Full duplex, 100Mbps, Link Down Power Saving, RMII interface Disable: Isolate, Repeater mode
- These seven configuration pins could be connected to VDD or GND directly.

* Pull down U2 pin4 for RMII clock source 25MHz.

Pin1 COL/RMII	Pin44 MII/SNIB	Function
1	1	RMII, ext 50MHz osc clk in to pin7
1	0	RMII, 25MHz crystal or osc from X1,X2; 50MHz clk out to pin16. (Please refer to the following figure for our recommended application circuit.)
0	1	MII, 25MHz crystal or osc from X1,X2
0	0	SNI, 25MHz crystal or osc from X1,X2



** Bead should be placed as close to IP101A as possible and in the same side as IP101A.



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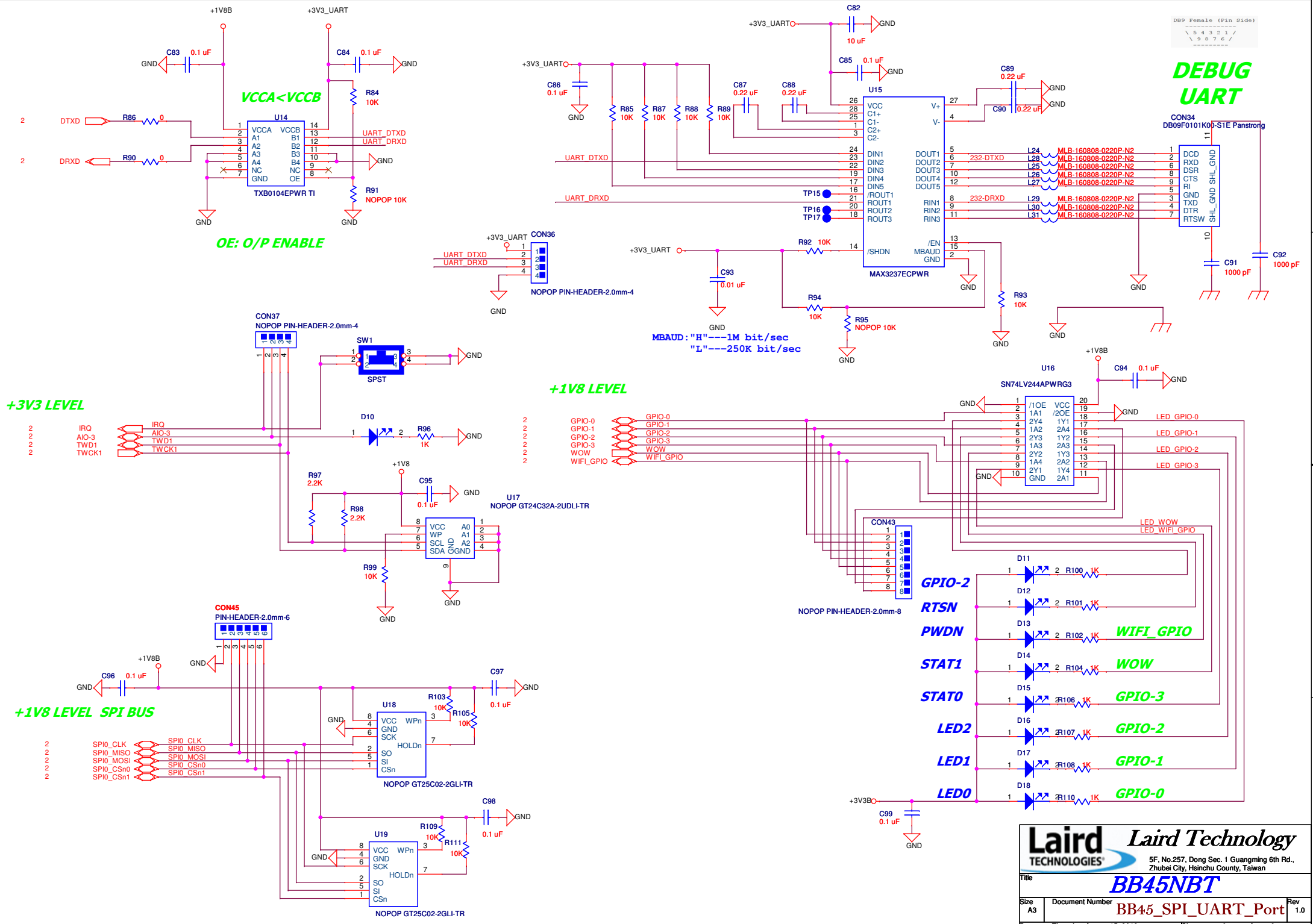
5F, No.257, Dong Sec.1 Guangming 6th Rd., Zhubei City, Hsinchu County, Taiwan

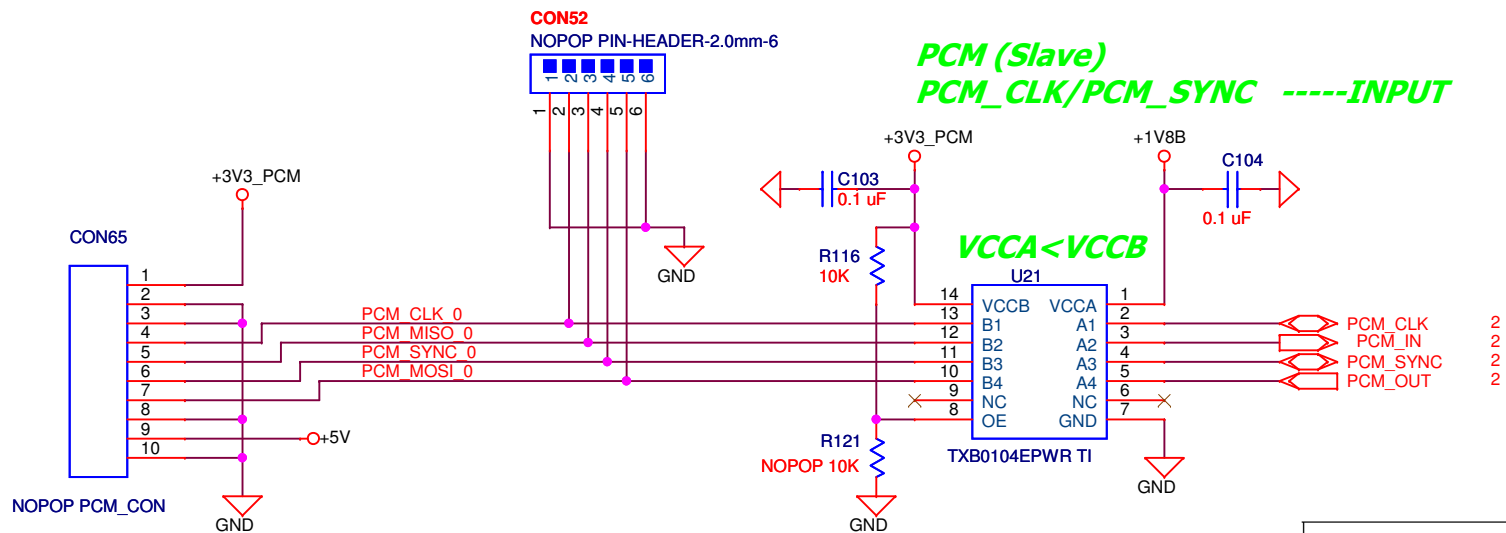
BB45NBT

SinglePHY_ETH

Size A3 Document Number

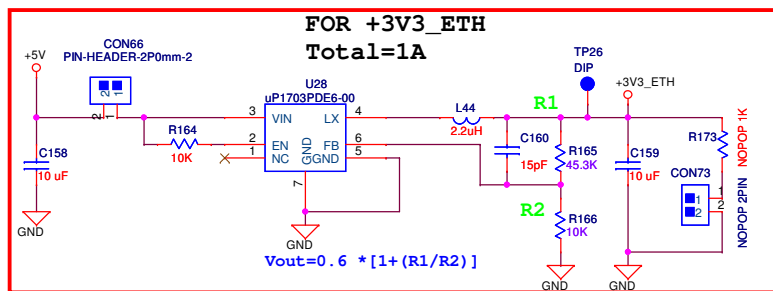
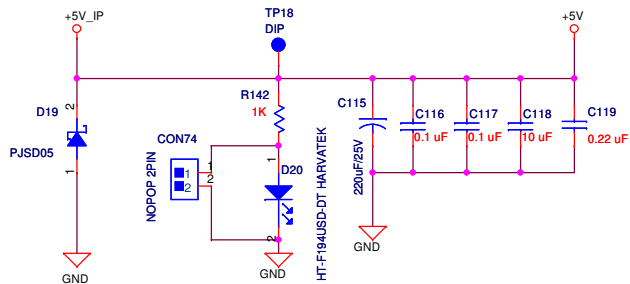
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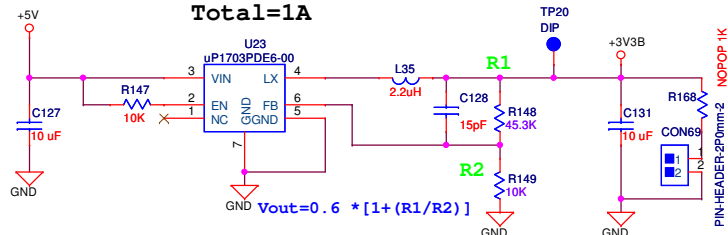


SPI_CLK-----9
SPI_MOSI-----10
SPI_CSn-----2
SPI_MISO-----8

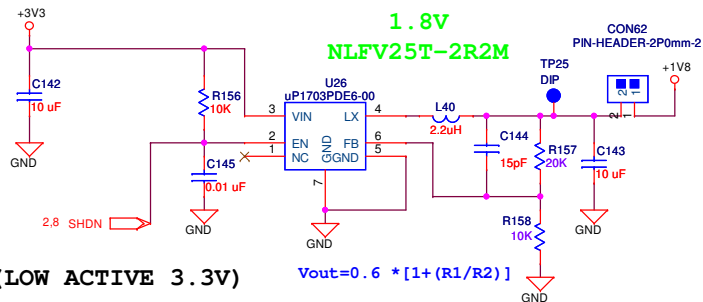
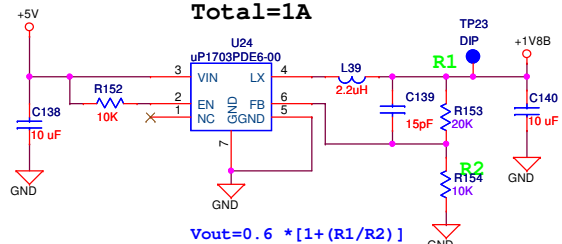
SPI Signal	Casira CN16 Pin (16 Way IDC)	LPT Port Pin (25 Way D-type)
SPI_MISO	2	10
SPI_CSB	3	2
SPI_MOSI	4	8
SPI_CLK	6	9
XAP_RESET	14	16
GROUND	5, 7	24



FOR +3V3_BU and others
Total=1A



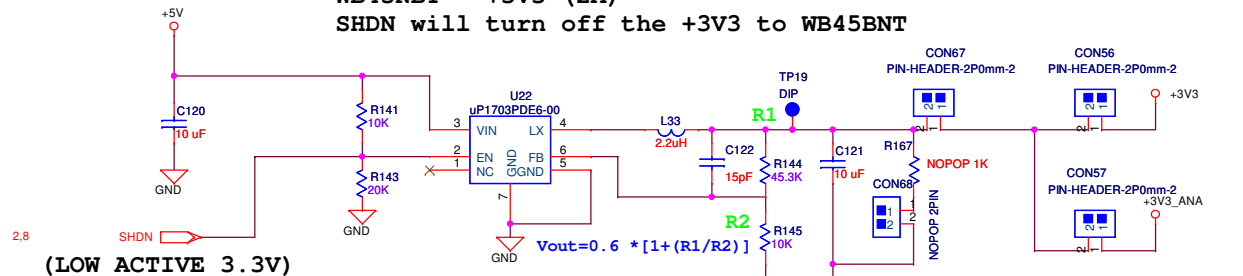
FOR +1V8_BU and others
Total=1A



(LOW ACTIVE 3.3V)

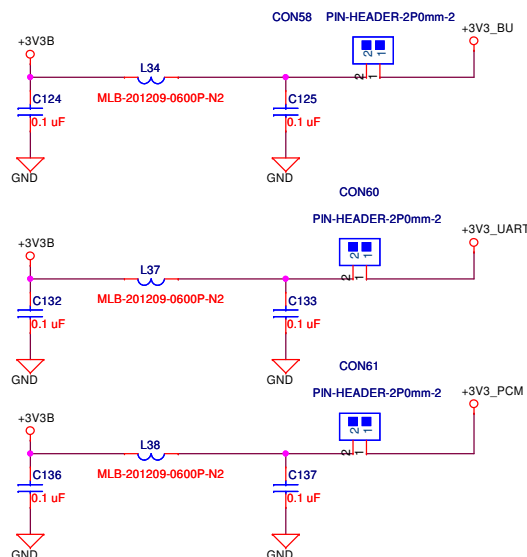
WB45NBT---+3V3 (2A)

SHDN will turn off the +3V3 to WB45BNT

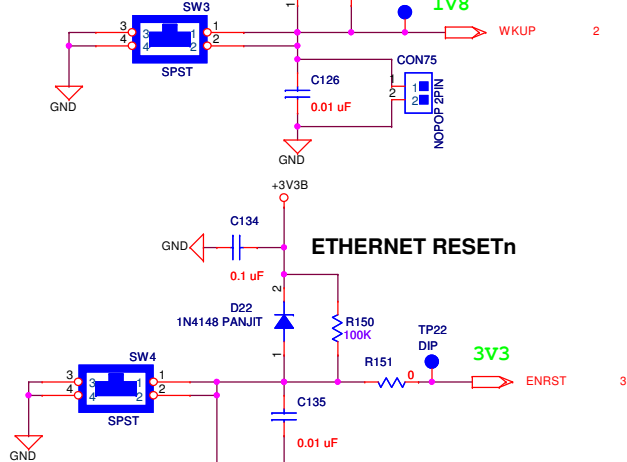


(LOW ACTIVE 3.3V)

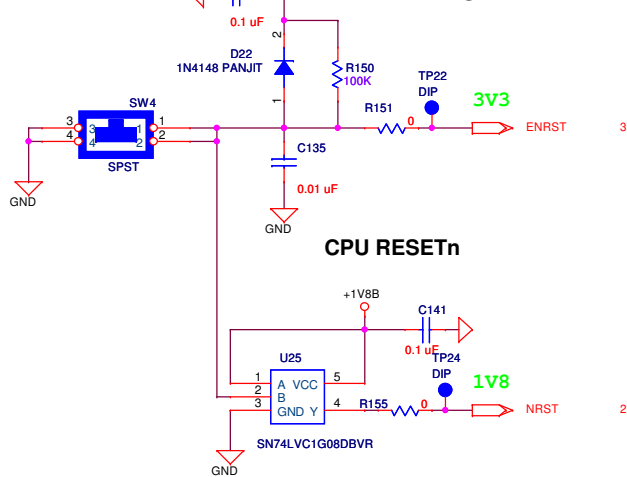
WIFI =330mA
BT =330mA
Close to the B2B connector



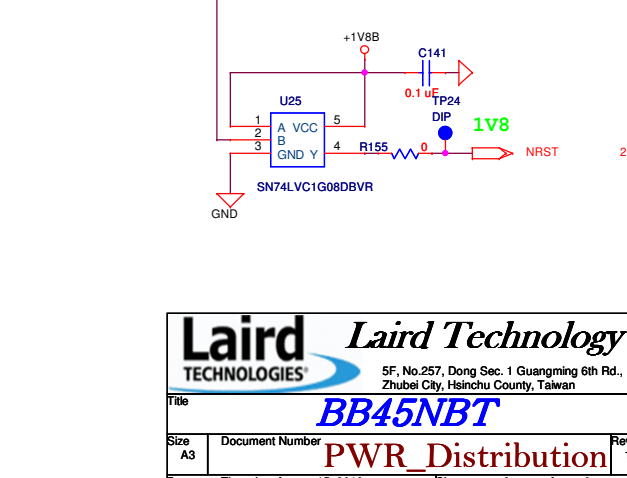
WAKE UP



ETHERNET RESETn



CPU RESETn



- * R167, CON68 for test fixture 3.3V indicator
- * R142, CON74 for test fixture 5V indicator
- * R173, CON73 for test fixture ETH_3.3V
- * R168, CON69 for test fixture 3.3V_BU
- * R169, R170, Q2, CON70 for test fixture 1.8VB
- * R171, R172, Q3, CON71 for test fixture 1.8V

INPUTS		OUTPUT
A	B	Y
H	H	H
L	X	L
X	L	L

LOGIC DIAGRAM (POSITIVE LOGIC)

