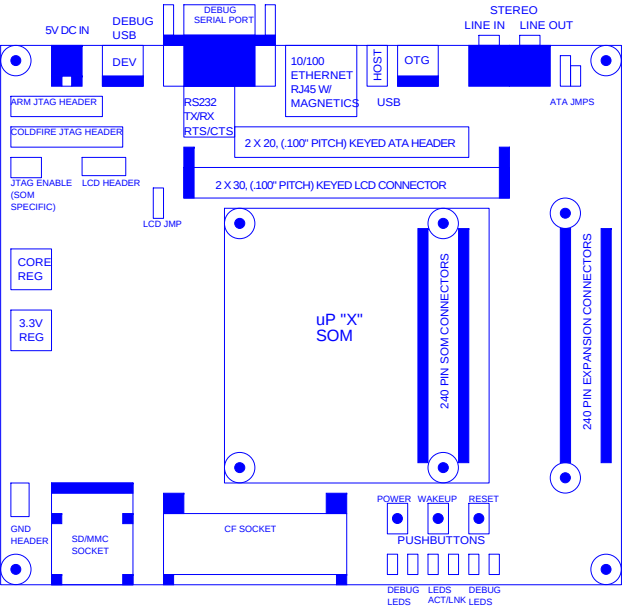


PROJECT:	SDK2
PART NUMBER:	1005441
ASSEMBLY NAME:	SDK2 BASEBOARD
SCHEMATICS:	KTU/ECR
TABLE OF CONTENTS	
PAGE	DESCRIPTION
1	TITLE PAGE AND BLOCK DIAGRAM
2	MODULE BUS
3	ETHERNET
4	AUDIO
5	CF CARD
6	RS232 UART
7	LCD
8	POWER
9	JTAG
10	EXPANSION BOARDS
11	USB
12	SD/MMC/ATA
13	ECO LIST

IMPORTANT NOTES ABOUT THIS SCHEMATIC

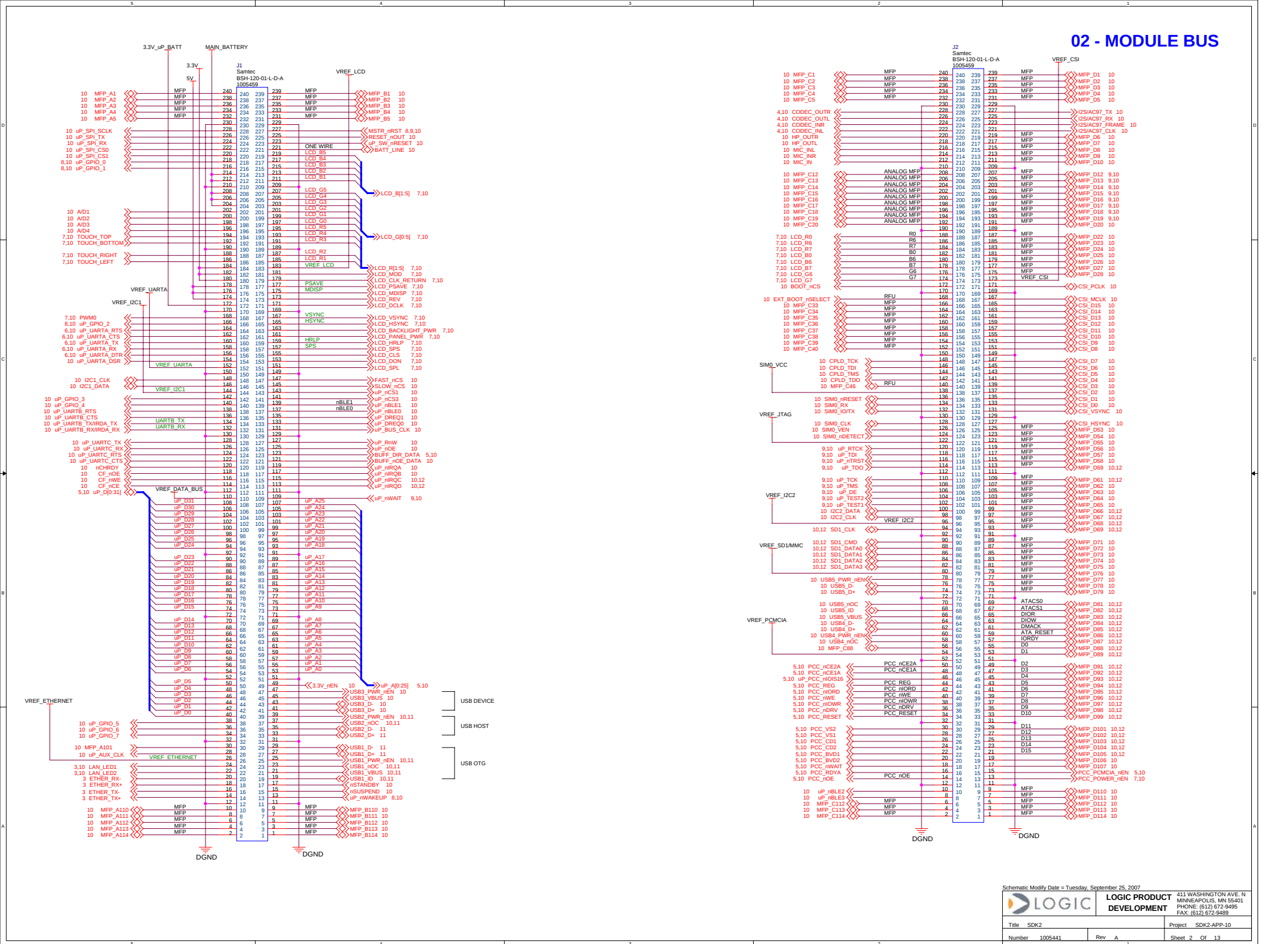
- DESIGN NOTE: Example text for the design note to show the note inside the colored box.
- 1) DESIGN NOTES in grey are information notes.
- DESIGN NOTE: Example text for the design note to show the note inside the colored box.
- 2) DESIGN NOTES in yellow are notes of caution.
- DESIGN NOTE: Example text for the design note to show the note inside the colored box.
- 3) DESIGN NOTES in red are critical, and must be understood and followed.



IMPORTANT NOTICE:

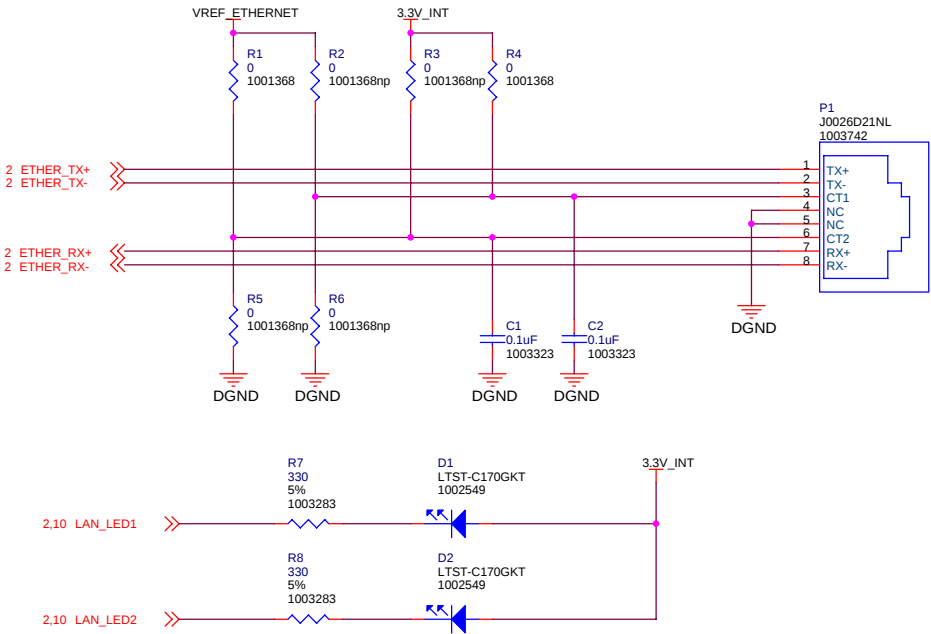
1. THIS DOCUMENT MAY NOT REFLECT THE MOST RECENT CHANGES IN BOARD DEVELOPMENT AND DEBUG. ANY DEVELOPER INTENDING TO USE THIS SCHEMATIC AS A REFERENCE SHOULD CONTACT THEIR THE LPD WEBSITE (WWW.LOGICPD.COM), REGIONAL SALES OFFICE, OR PROGRAM MANAGER FOR SCHEMATIC UPDATES, DESIGN RECOMMENDATIONS AND PCB LAYOUT GUIDELINES. LPD ALSO RECOMMENDS A DESIGN REVIEW OF BOTH THE SCHEMATIC DIAGRAM AND PCB LAYOUT BEFORE CONSIDERING PRODUCTION.
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Title SDK2				Project SDK2-APP-10			
Number 1005441		Rev A		Sheet 2 Of 13			

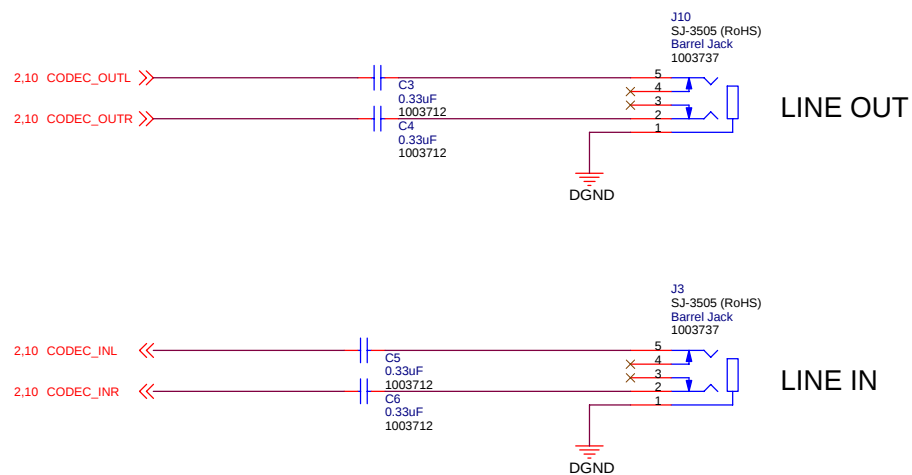


POPULATION CHART BY ETHERNET CHIP ON MODULE		
LAN9117	R1, R4	ALL OTHER NO POPULATED
DP83848	R1, R2	ALL OTHER NO POPULATED

DESIGN NOTE: The Ethernet signals are differential pairs with a differential impedance of 90 Ohms. Each pair must be length matched and have a target impedance of 90 Ohms +/- 10%.



04 - AUDIO

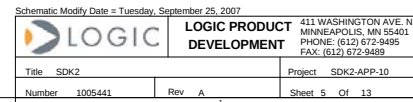


Schematic Modify Date = Tuesday, September 25, 2007

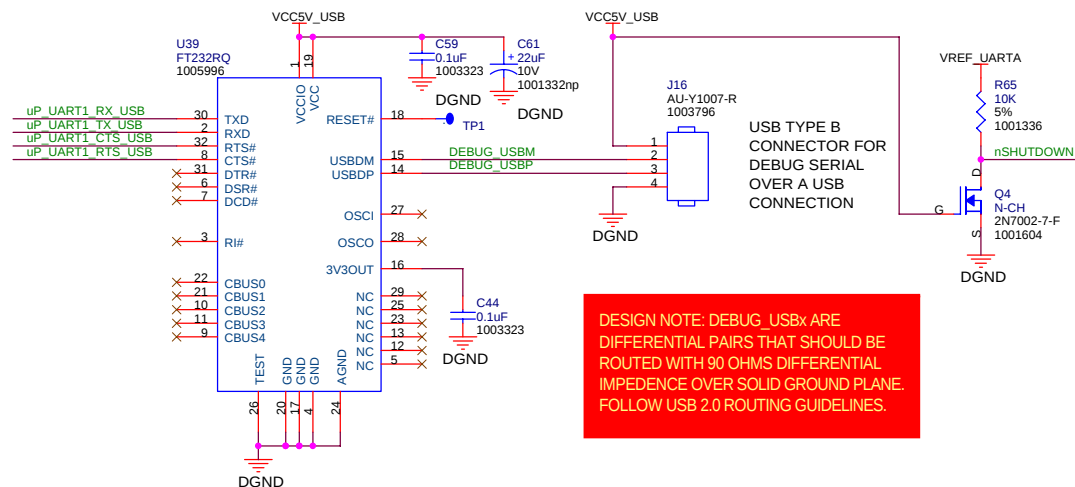
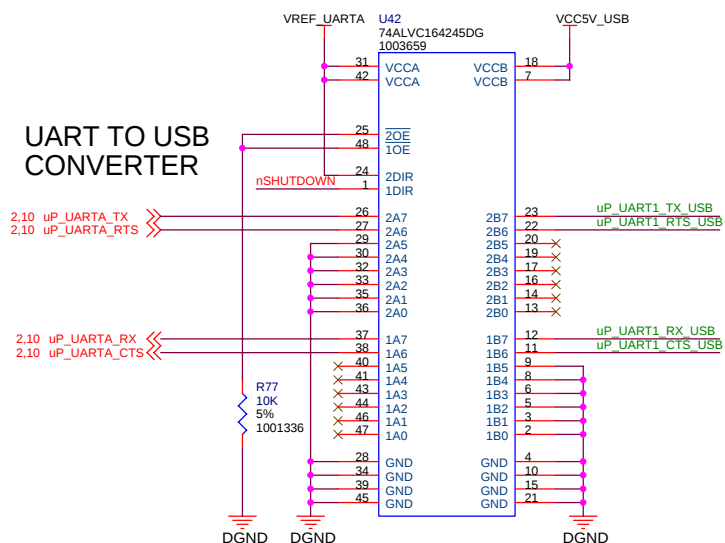
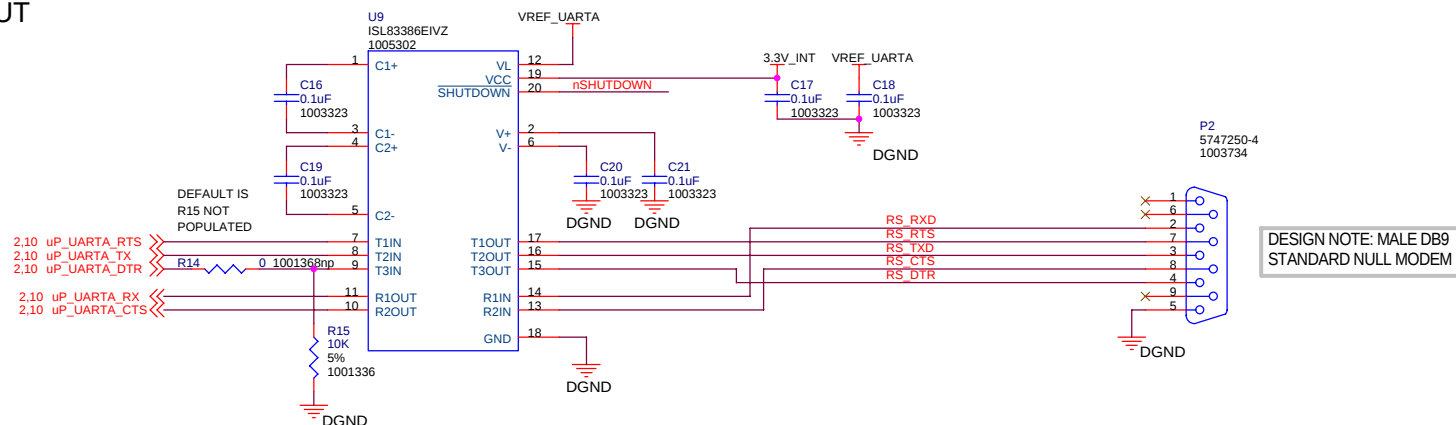
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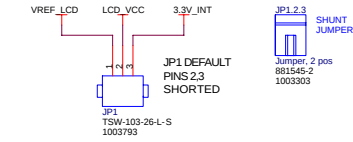


SERIAL OUTPUT

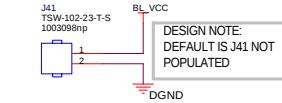


DESIGN NOTE: DEFAULT IS
RPACKS R16-R23 NOT POPULATED.

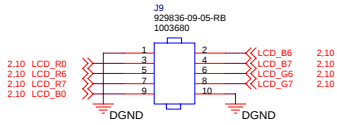
LCD SIGNAL OPERATING VOLTAGE SELECTOR



CUSTOM BACK LIGHT VOLTAGE CONNECTOR

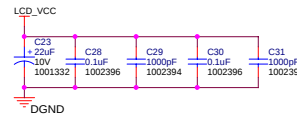
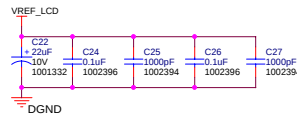
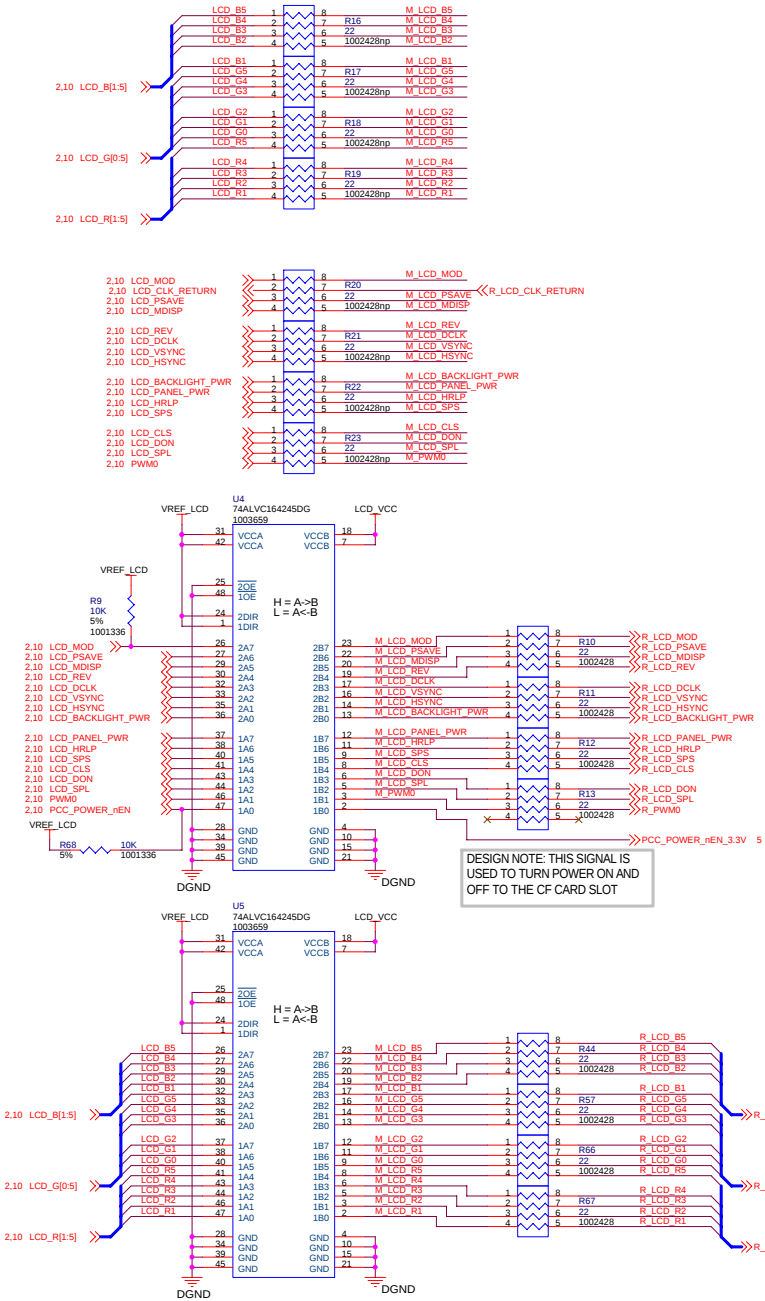


DESIGN NOTE: DEFAULT IS
POPULATED FOR 18BPP PANELS
TO BE DRIVEN ONLY BY 16BPP



DESIGN NOTE: THIS SIGNAL IS
USED TO TURN POWER ON AND
OFF TO THE CF CARD SLOT

DESIGN NOTE: THIS CONNECTOR IS ACTUALLY A 30X2
DUAL ROW .100" PITCH, .025" SQ POST MALE
HEADER. IT IS REPRESENTED SYMBOLICALLY AS A
SINGLE ROW CONNECTOR TO
ILLUSTRATE HOW THE SIGNALS WILL ROUTE THROUGH
THE RIBBON CABLE.



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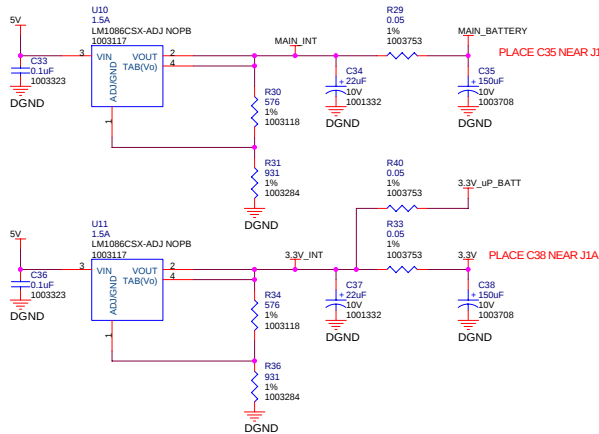
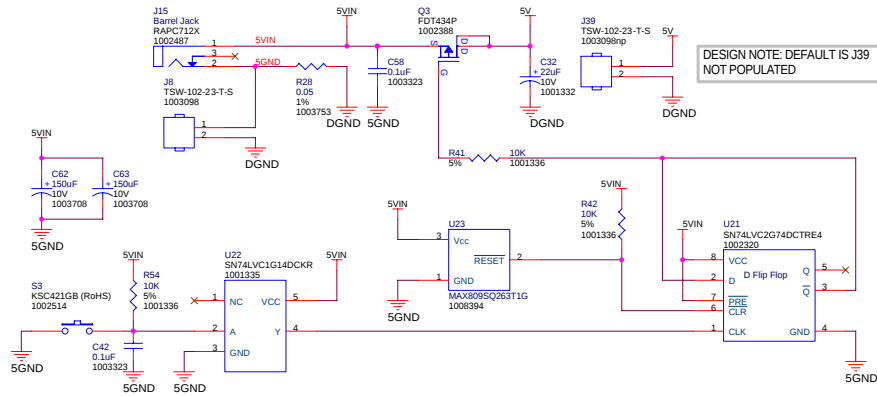


LOGIC PRODUCT
DEVELOPMENT

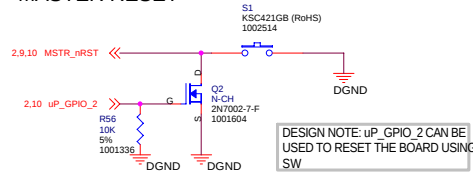
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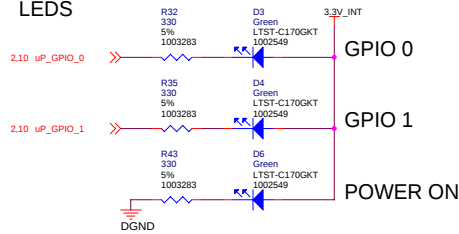
5V INPUT POWER, ON/OFF SWITCH



MASTER RESET



STATUS LEDS

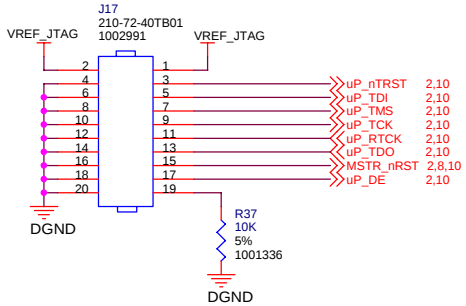


WAKEUP



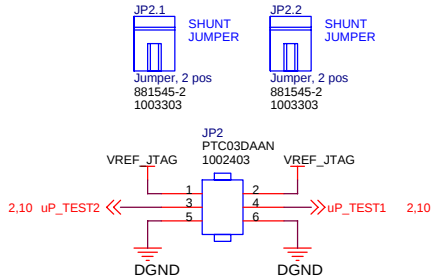
ARM JTAG

DESIGN NOTE: NOT APPLICABLE TO ALL PRODUCTS



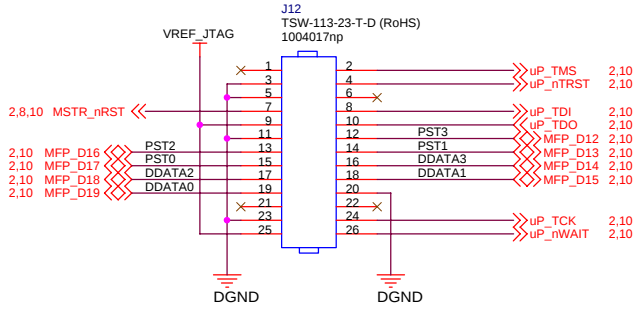
JTAG MODE

DESIGN NOTE: NOT APPLICABLE TO ALL PRODUCTS

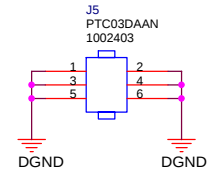


COLDFIRE JTAG

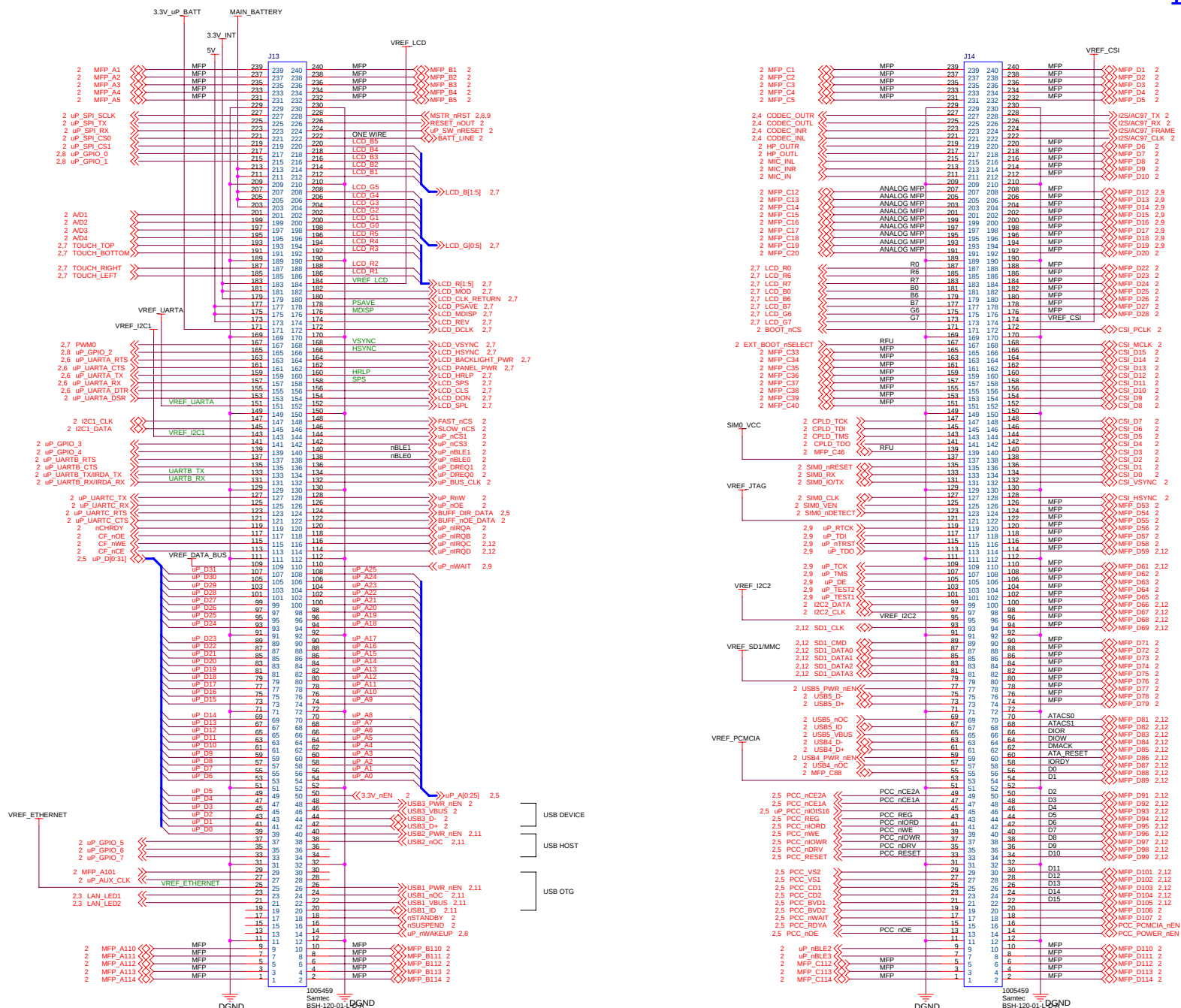
DESIGN NOTE: NOT APPLICABLE TO ALL PRODUCTS



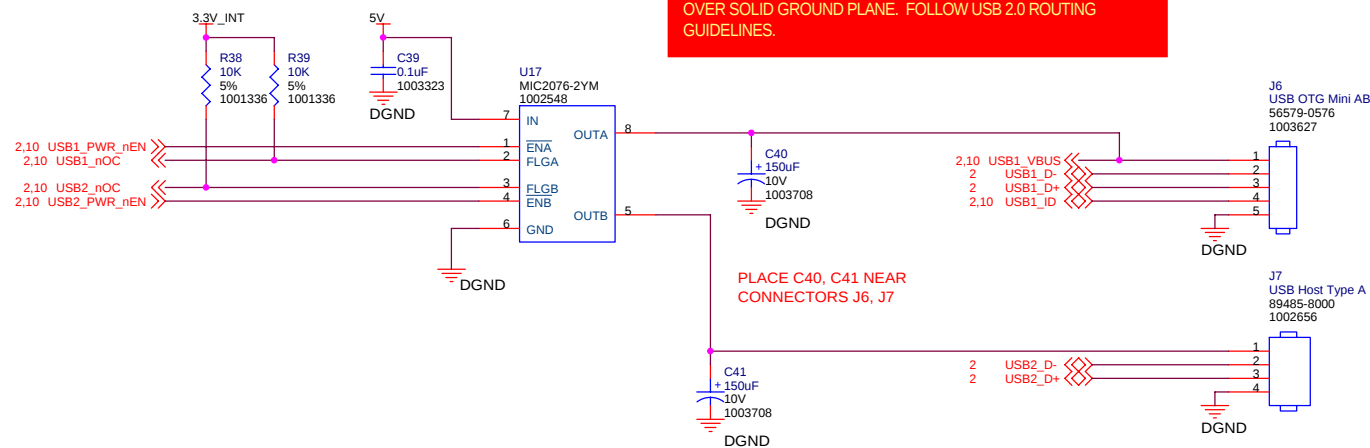
PROBE GND CONNECTOR



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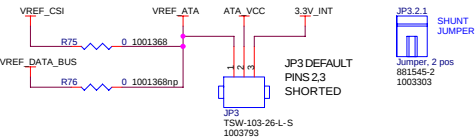
11 - USB



Schematic Modify Date = Tuesday, September 25, 2007

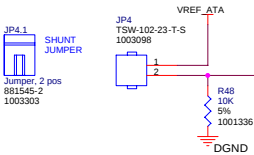
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ATA OPERATING VOLTAGE SELECTOR

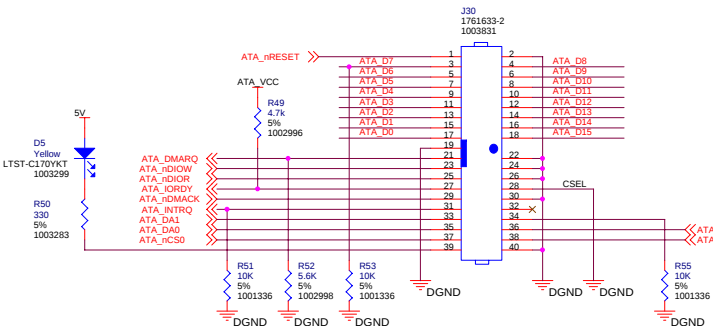
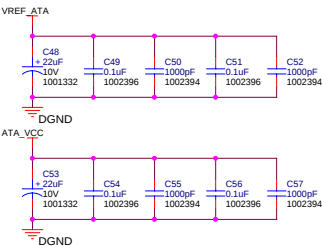
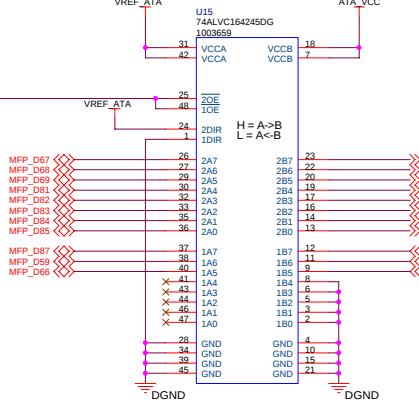
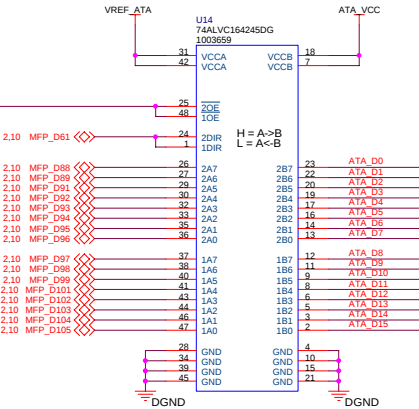
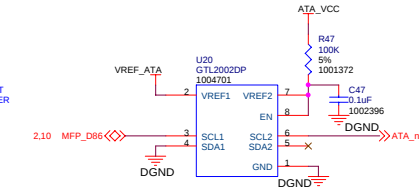


DESIGN NOTE: R76 DEFAULT NOT POPULATED

ATA SIGNAL ENABLE

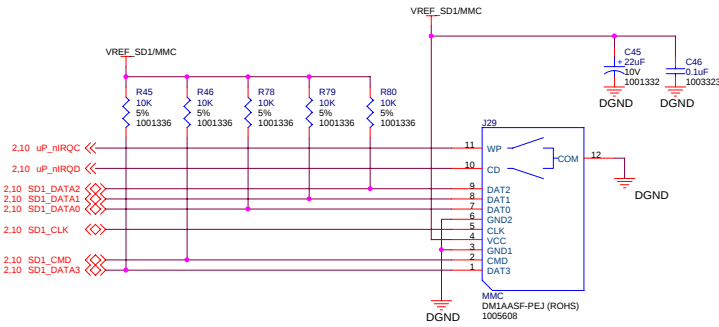


DESIGN NOTE: JP4 DEFAULT STATE ENABLES ATA BUFFERS. ON SOME MODULES THE ATA BUS IS SHARED WITH OTHER PERIPHERAL INTERFACES AND IF ENABLED MAY CAUSE BUS CONTENTION WITH THE MIXED PERIPHERALS. SEE YOUR SPECIFIC MODULE FOR DETAILS ON PERIPHERAL MUXING.



SD/MMC

DESIGN NOTE: PULLUPS FOR uP_nIRQC, uP_nIRQD ARE FOUND ON MODULE



Production Changes v5.0 - vA		
Mantis #	Pages	Description
0002858	6	The UART to USB chip backpowers the SOM when the baseboard is off. Following the proven fix on the SDK-COM-Express, this was implemented on this design.
0003417	all	All of the 3.3V circuitry on the SDK2 board uses power from the 3.3V plane, not the 3.3V_INT plane (in fact, the 3.3V_INT net doesn't even connect to anything). The primary issue with this is that it is not possible to measure 3.3V current draw on the SOM by monitoring voltage over R33. The voltage over R33 depicts current draw of the SOM as well as current draw of the 3.3V components on the baseboard. The whole idea of the current measurement resistors is to isolate the power for the SOM so power measurements can be taken. If I'm not missing something here, I'd recommend that we fix this in later revisions of the SDK2 board. The functionality/systems impact is nil - there are no differences as far as function/operation with the exception of the ability to measure current consumption for the SOM only. Updated SDK2 by changing the power distribution structure such that 3.3V_INT is used for all SDK2 and Expansion Connector power and that 3.3V is used only for the SOM.
0003404	12	Pull up resistor on CMD line of MMC is not strong enough. Change R46 to 10K. Add 10K pull up resistors to MMC D0 through D3.
0003457	8	Changed out part U23 for one with a lower trip voltage. Made default population to be populated, added 2x 150uF caps on the 5Vin rail to help minimize the droop in the 5V rail when the power button is asserted.