VAR-AM35CustomBoard v2.3B

CONTENT

PAGE NO.	SCHEMATIC PAGE
1	COVER PAGE
2	Bloack Diagram
3	SOM DIMM CONNECTOR
4	USB2.0 OTG ,HOST ,HUB
5	LCD, HDMI, TV OUT,LVDS,TOUCH
6	Audio, UART,Ethernet ,SDIO, GPIO
7	Extension connectors
8	Power

Disclaimer:

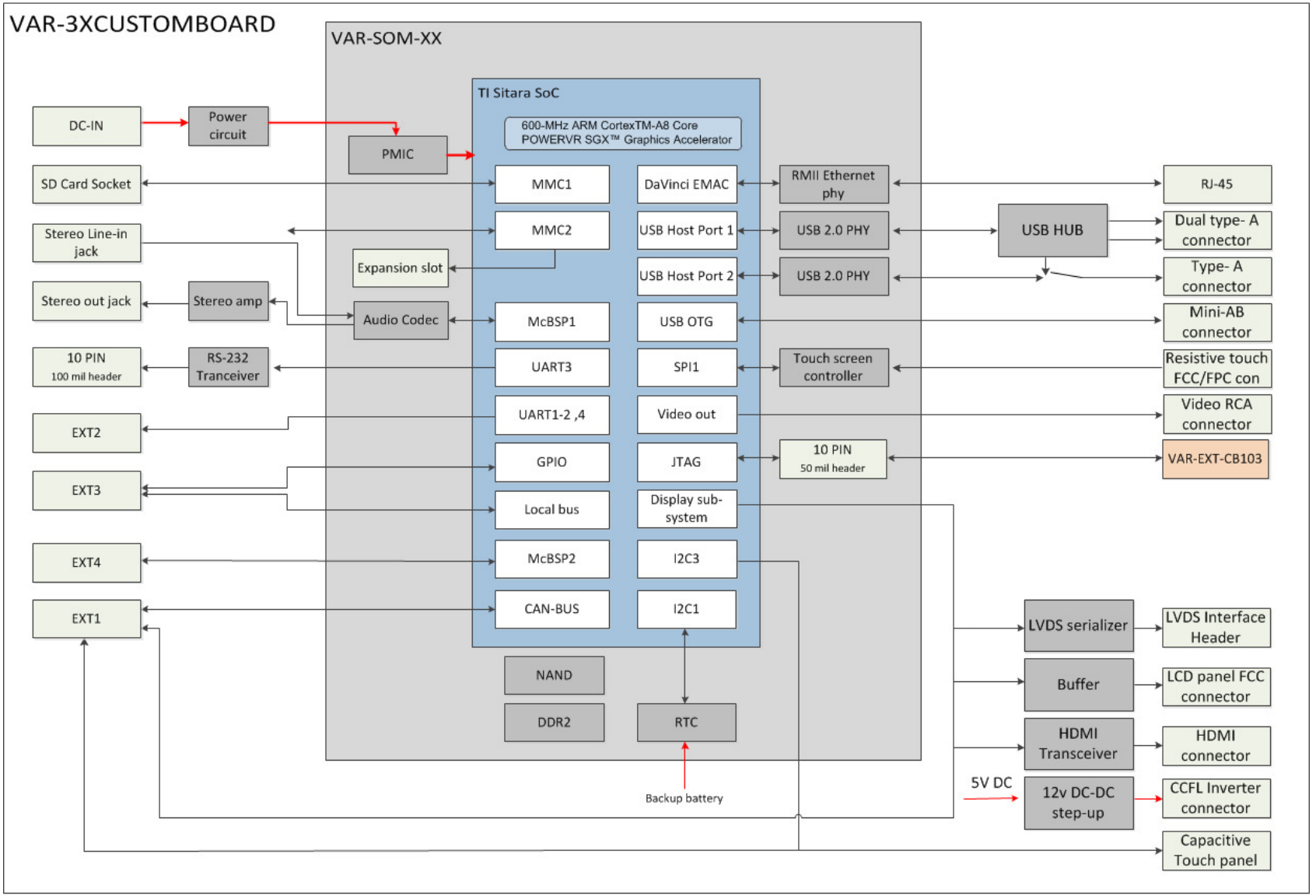
SchematicS are for reference only.
Variscite LTD provides no warranty for the use of these schematics.
Schematics are subject to change without notice.

Revision History

Rev 2.0	Added Features: 3 Port USB Composite Video Out VAR-SOM-37xx Support
Rev 2.0 A	VAR-SOM-37xx Assembly
Rev 2.0 B	VAR-SOM-35xx Assembly
Rev 2.1	VAR-SOM-AM35xx Assembly option
Rev 2.1 A	VAR-SOM-37xx Assembly
Rev 2.1 B	VAR-SOM-35xx Assembly
Rev 2.2	Adding GPIO level translator , Line in improvments
Rev 2.2 A	VAR-SOM-37xx Assembly
Rev 2.2 B	VAR-SOM-35xx Assembly
Rev 2.21	SD Card Connector Replace J1.123 switched with J1.121 (USBHOST2_DM /USBHOST2_DP)
Rev 2.3	Extension connectors part number change J1.158 changed to GPIO64
Rev 2.3A	TV OUT Filter- C89 NC
Rev 2.3B	VAR-SOM-AM35 Symbol- pin 185 changed to GPIO157

Title: 1. Cover			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 1 of 8	

02 – Bloack Diagram



Variscite

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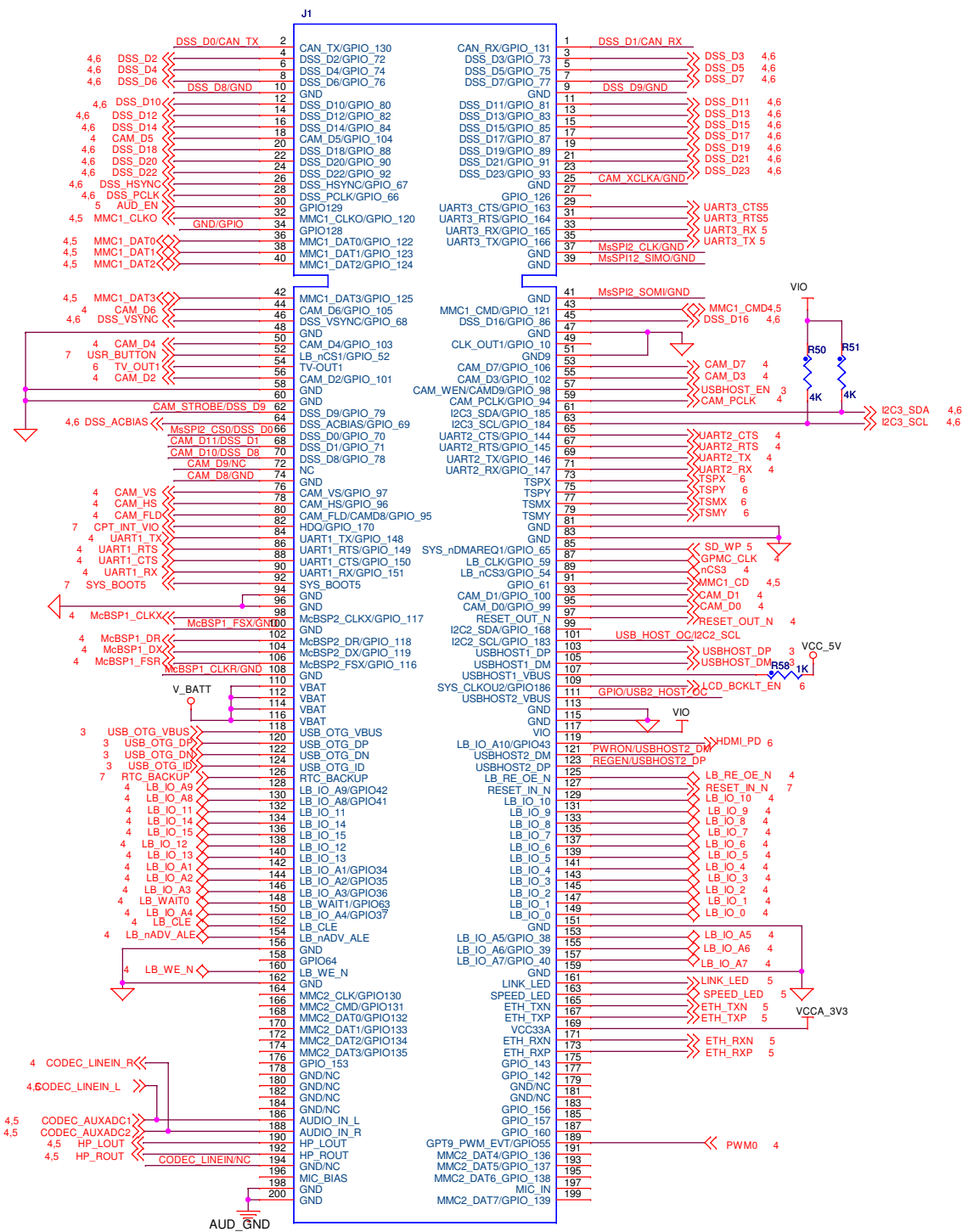
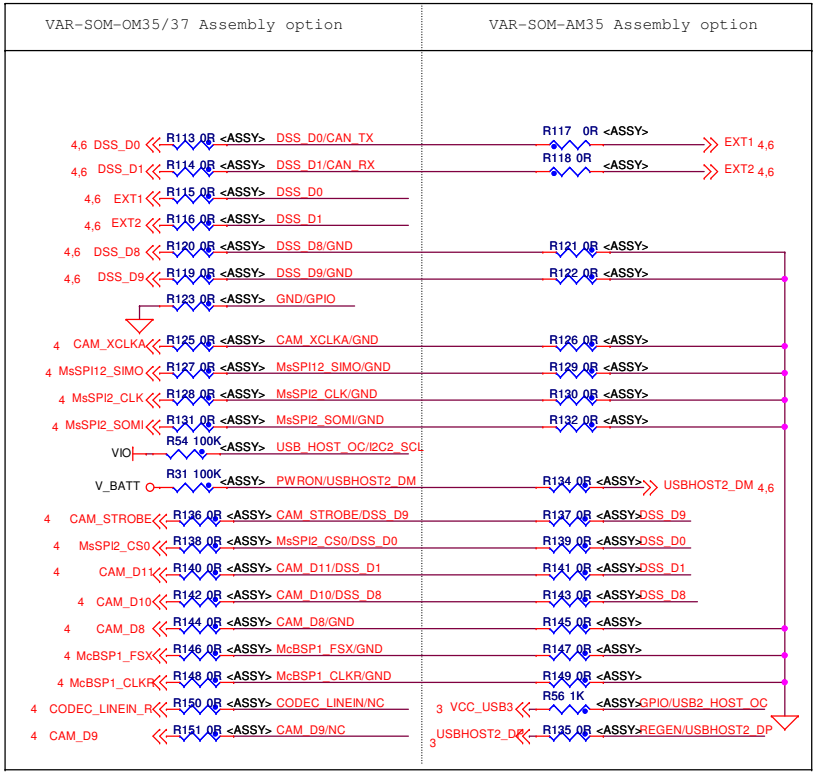
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 2 of 8	

03 - VAR-SOM-AM35 Connector





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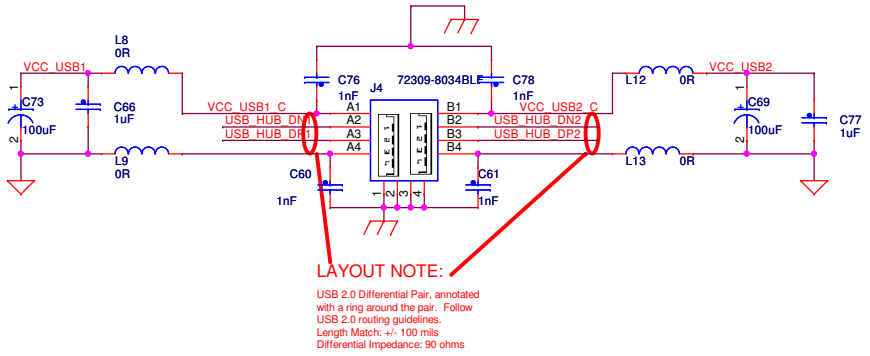
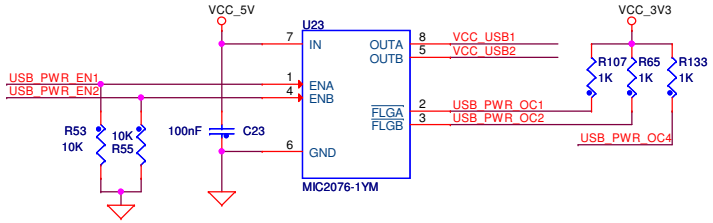
Title: 03 - VAR-SOM-AM35 Connector			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 3 of 8	

4. USB2.0 OTG ,HOST ,HUB

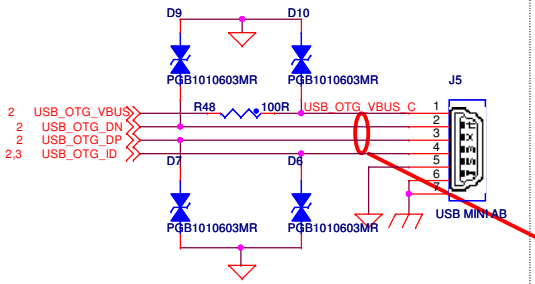
USB PORT 1-2 : 2 x USB 2.0 Host - Dual Type A



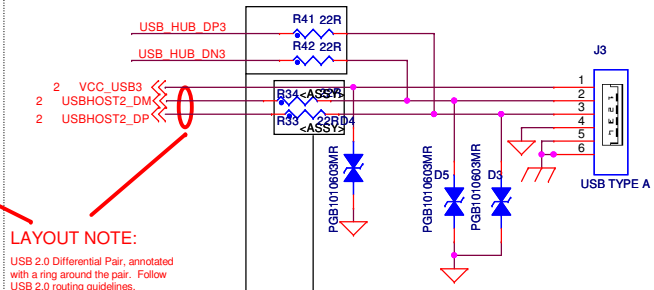
Power Distribution



USB 2.0 OTG

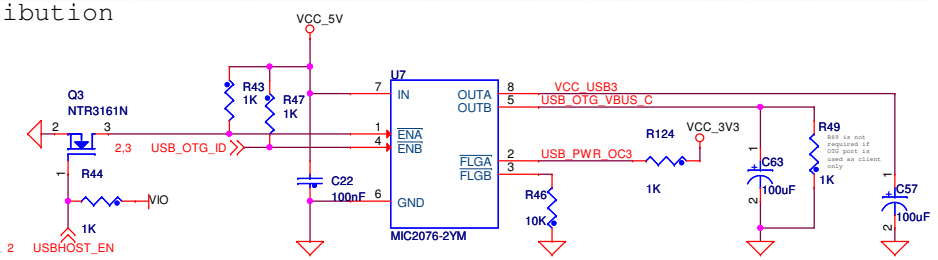


USB 2.0 PORT 3

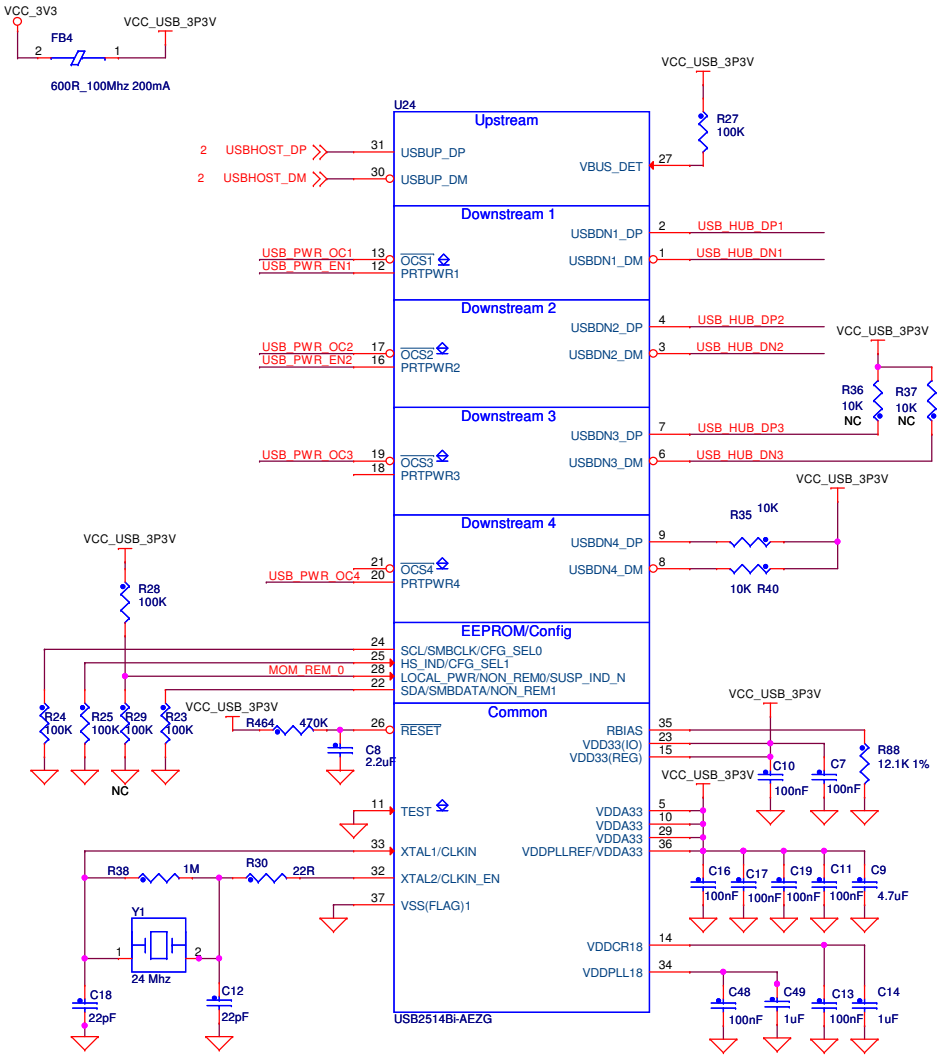


Assembly option:
AM35xx dedicated USB HOST
DM3730 USB hub port 3

Power Distribution



USB 2.0 HUB

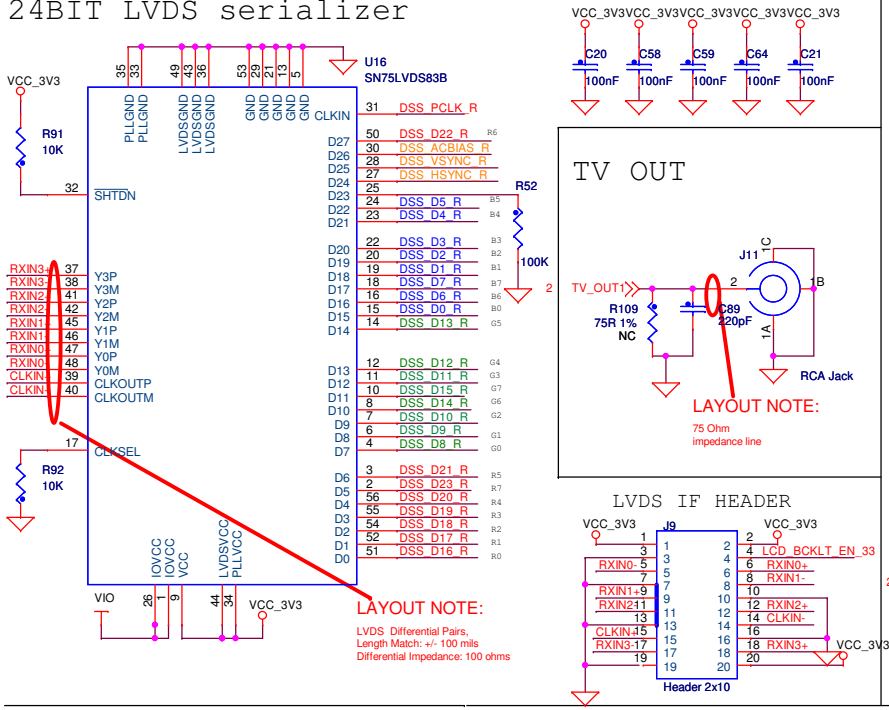


Variscite

Title: 4. USB2.0 OTG ,HOST ,HUB			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 4 of 8	

5. LCD, HDMI, TV OUT, LVDS, TOUCH

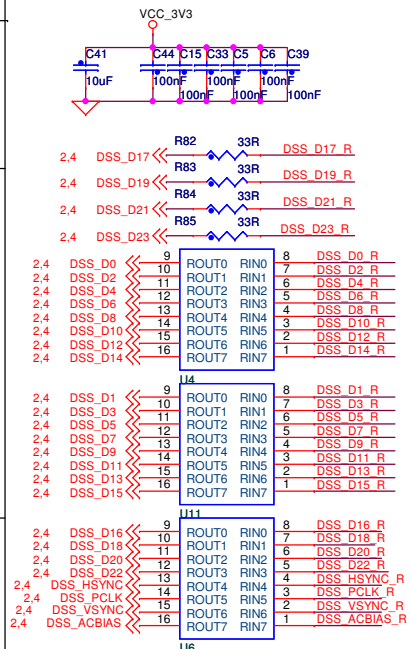
24BIT LVDS serializer

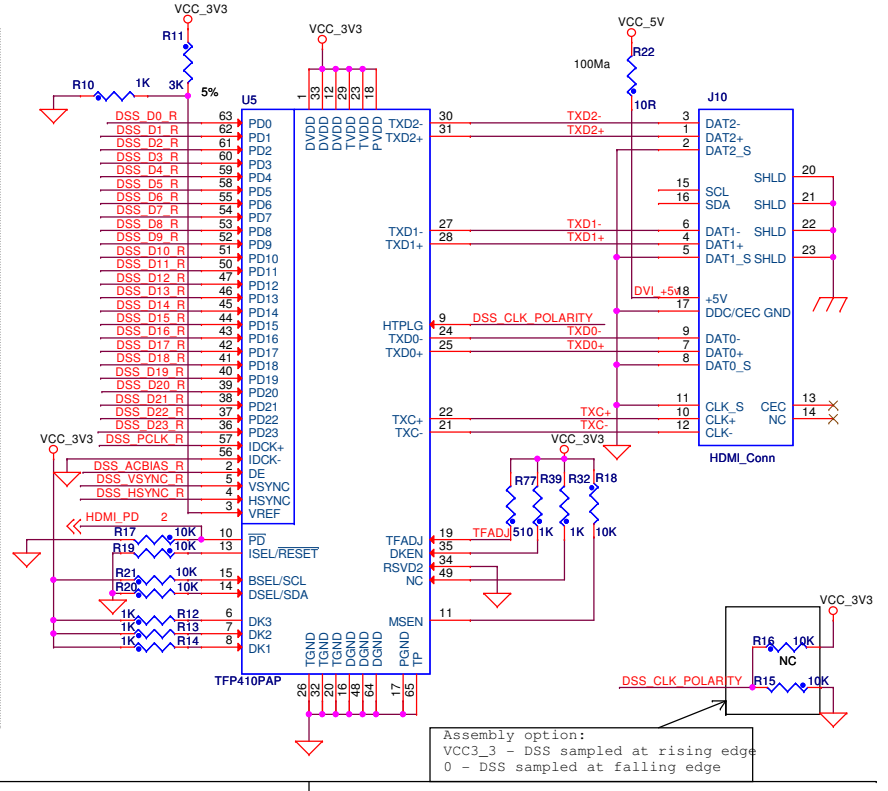


TV OUT

LVDS IF HEADER

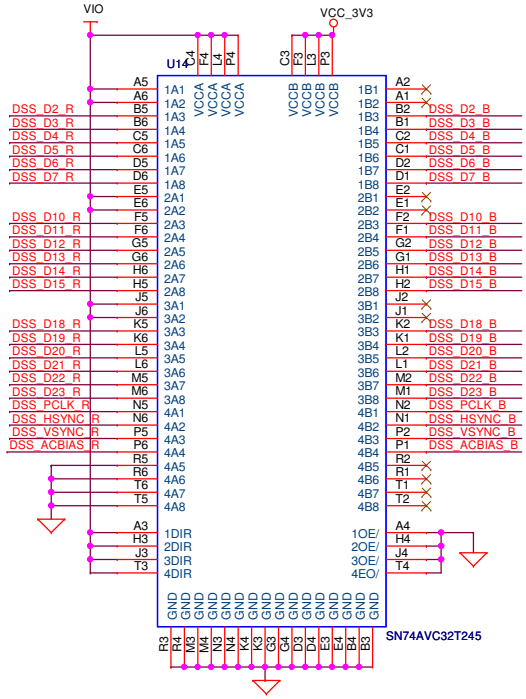
HDMI IF

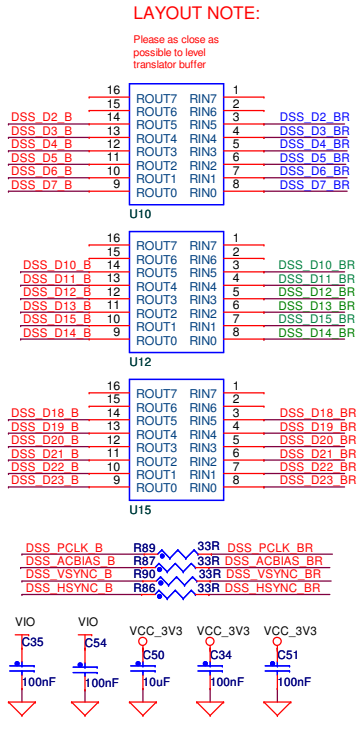




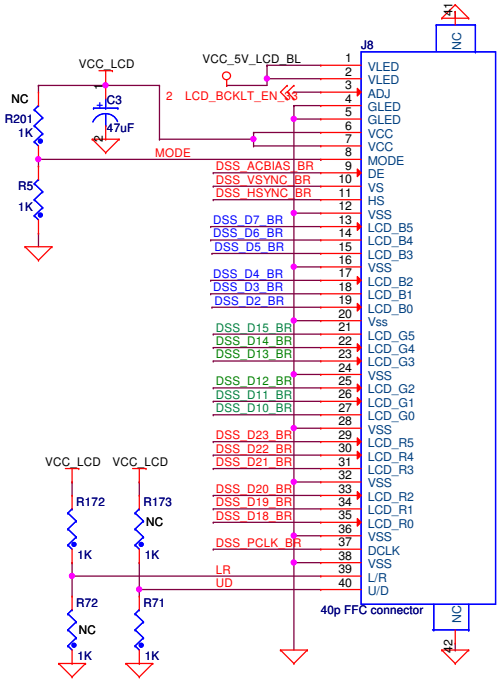
VIO --> 3.3V Level Translator

(Can be omitted in VAR-SOM-AM35 designs)



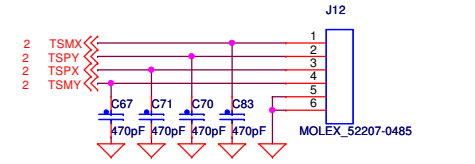


Parallel BUS FCC Connector

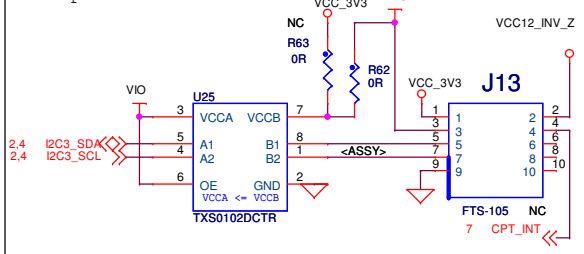


Touch Panel

Resistive



Capactive

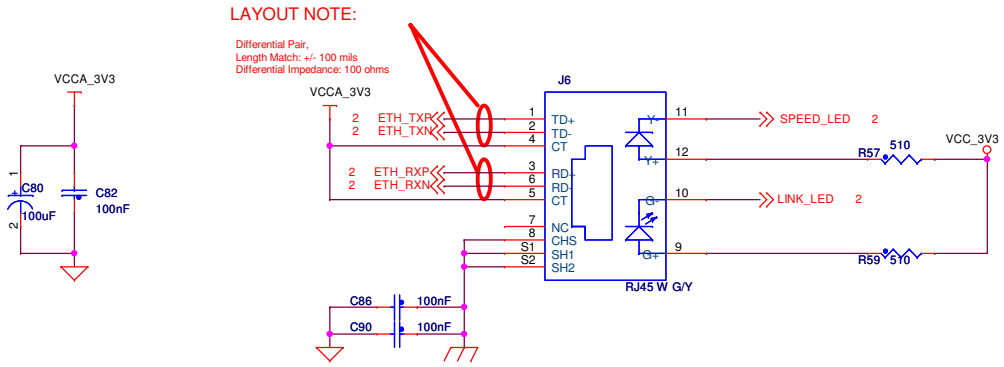


Variscite

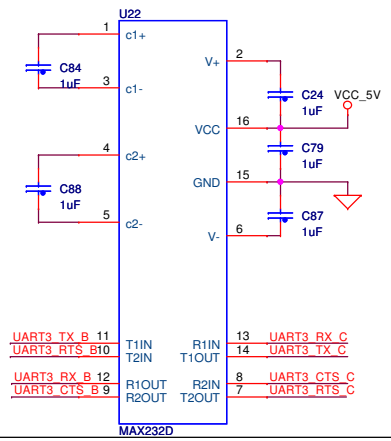
Title: 5. LCD, HDMI, TV OUT,LVDS,TOUCH			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 5 of 8	

6. Audio / UART / Ethernet / SDIO /GPIO

Ethernet

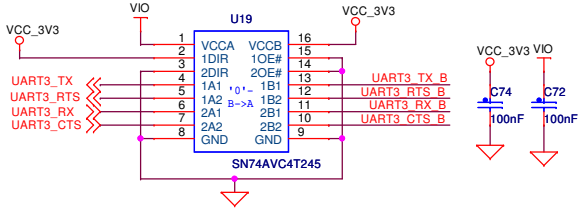


RS-232 TRX

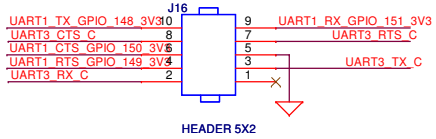


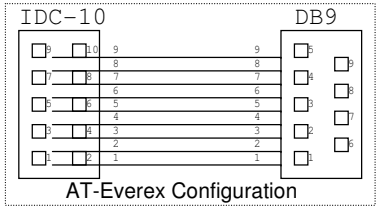
VIO --> 3.3V Level Translator

(Can be omitted in VAR-SOM-AM35 designs)

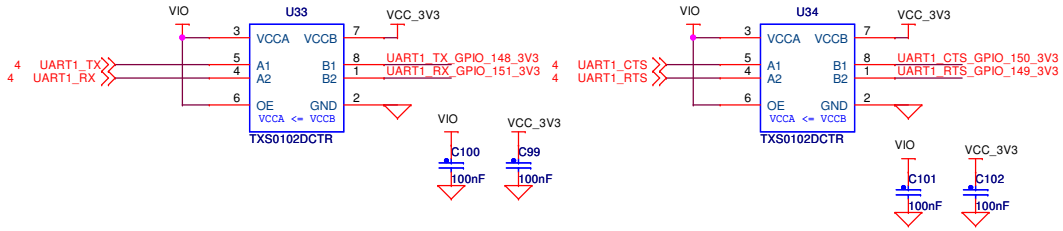


Debug Connector

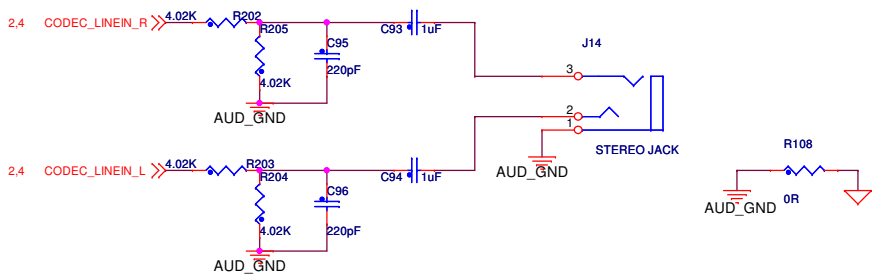




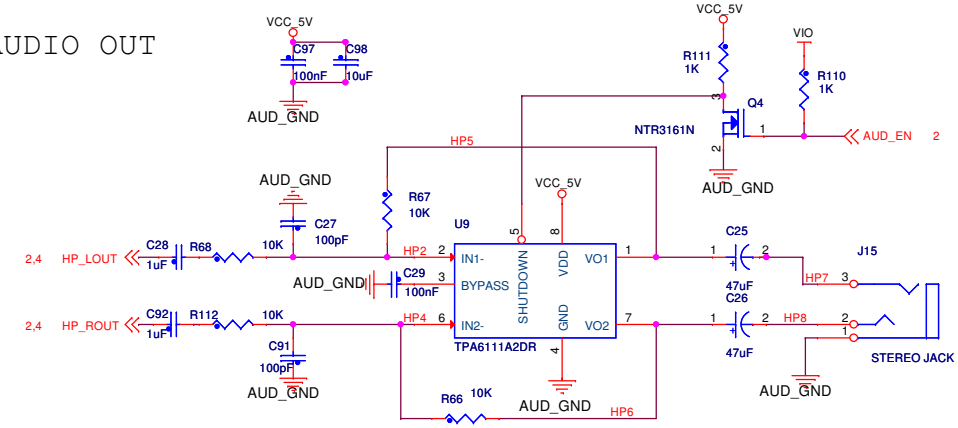
GPIO/UART1 VIO <--> 3.3V Level Translator



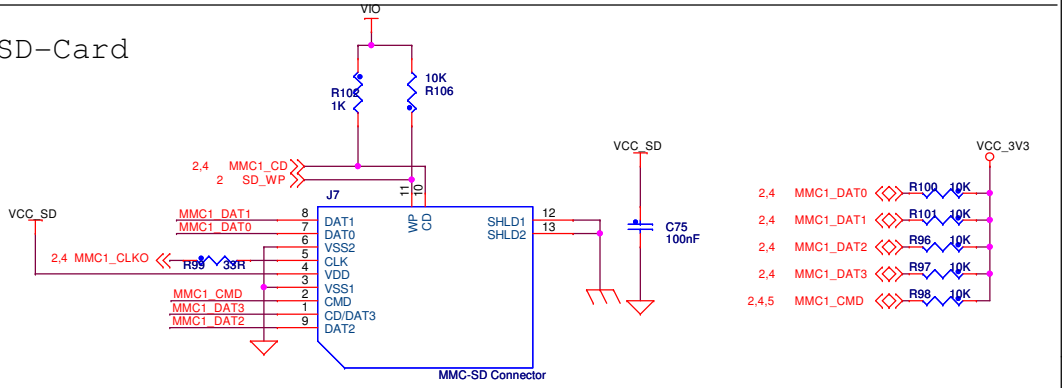
AUDIO IN

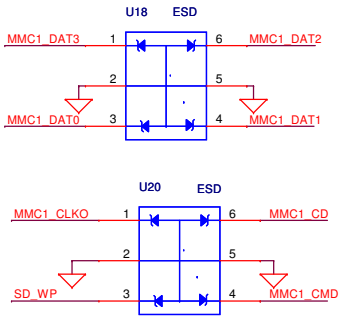


AUDIO OUT



SD-Card





SD / MMC ESD protection

Variscite

Title: 6. Audio, UART,Ethernet ,SDIO /GPIO			
Size: A3	Document Number: VAR-AM35CustomBoard v2.2	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 6 of 8	

07 - Extension Connectors

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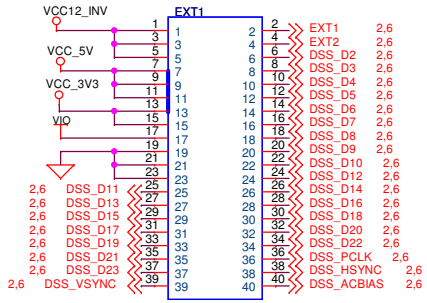

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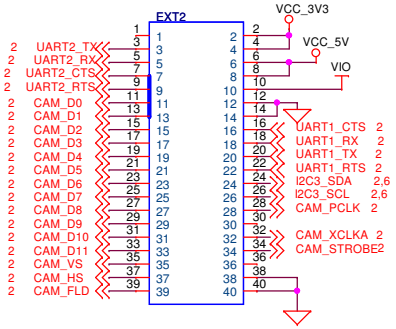

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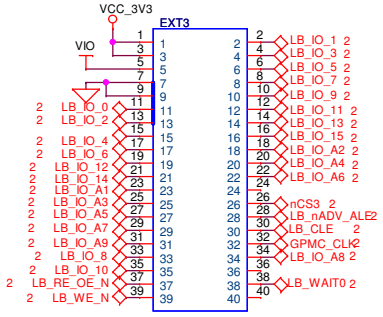

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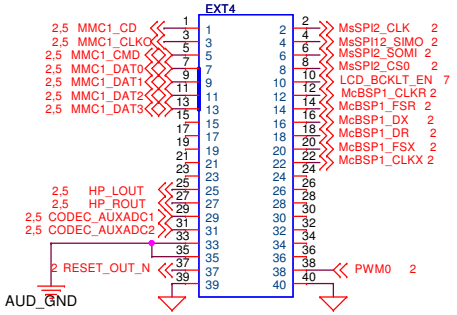


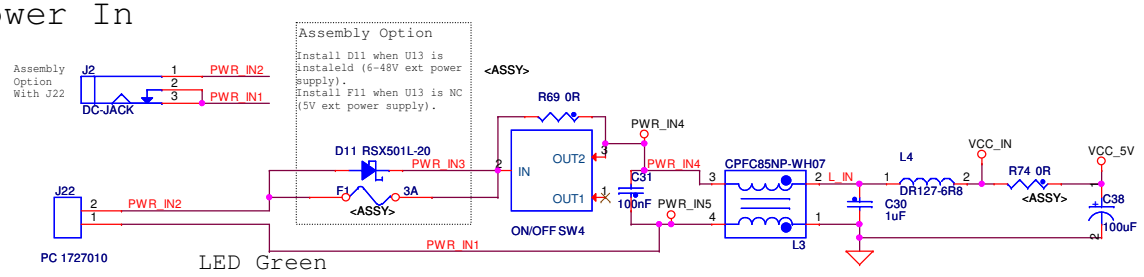
Mechanics

Variscite

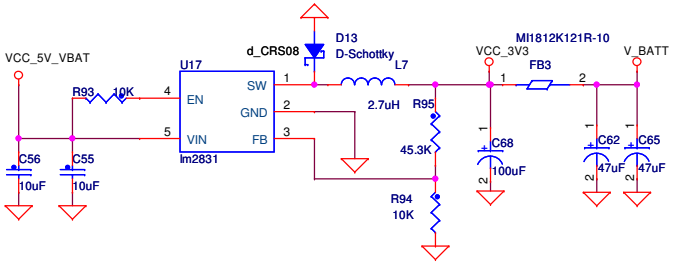
Title: 7 - Extension Connectors			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3B
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 7 of 8	

8. Power

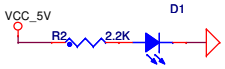
Power In



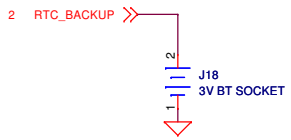
3.3v regulator

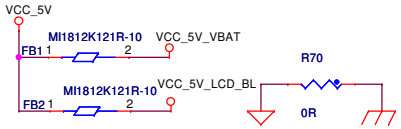


Main Power LED

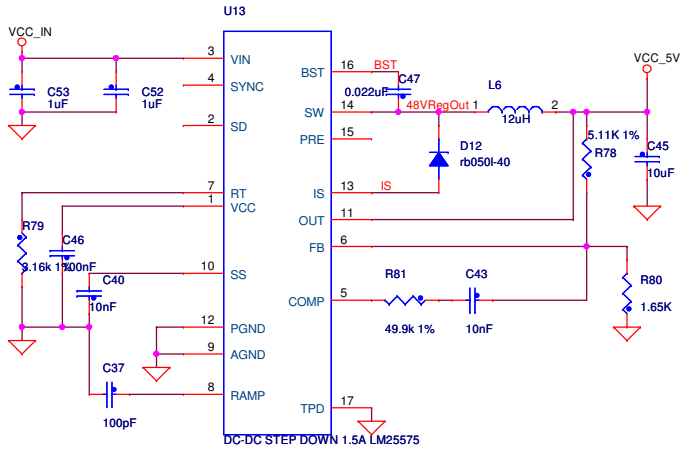


RTC Backup Battery

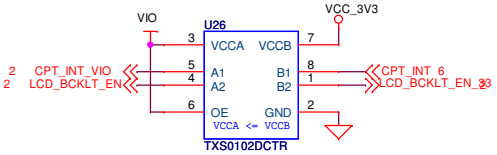


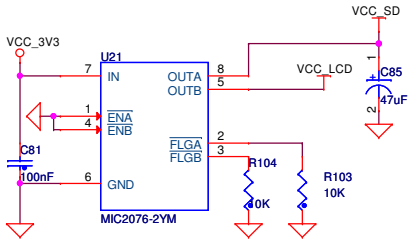


6-48v input regulator

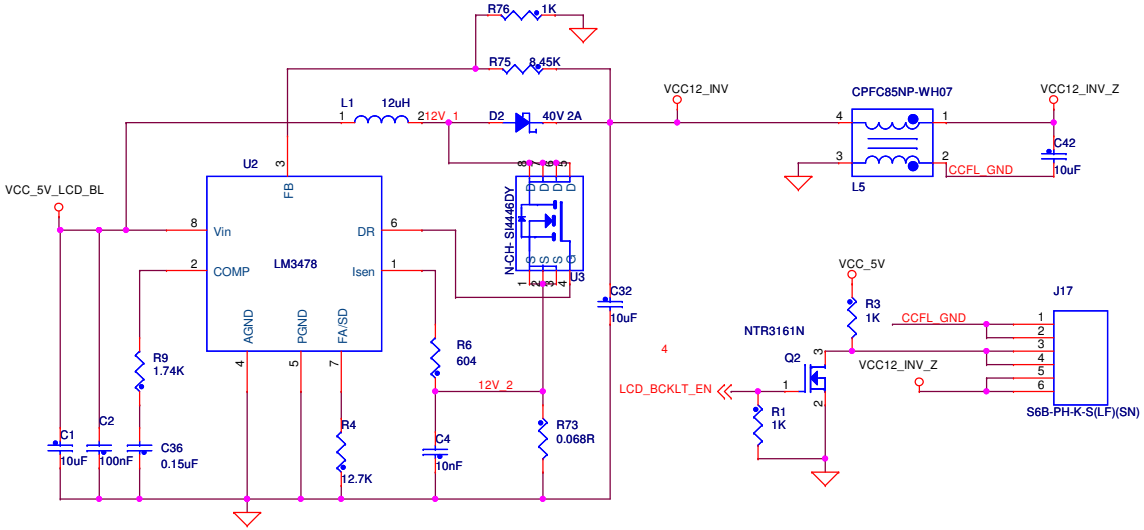


SD card & LCD power supply

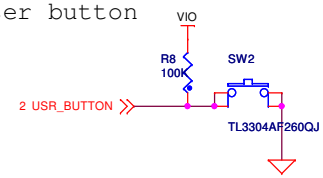




0.5A 12V Regulator for CCFL inverter

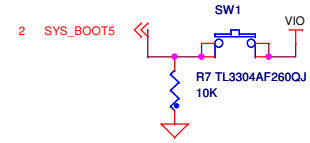


User button



Hard - Reset button

Sys-boot select button



Variscite

Title: 8. Power			
Size: A3	Document Number: VAR-AM35CustomBoard v2.21	Project: VAR-AM35CustomBoard	Rev: 2.3A
Designer: <Designer>		Approved By: <Approved By>	
Date: Sunday, December 04, 2011		Sheet 8 of 8	