

VAR-SOLOCustomBoard



CONTENT

PAGE NO.	SCHEMATIC PAGE
1	Cover
2	Block Diagram
3	VAR-SOM-SOLO
4	Display ,Touch, HDMI
5	USB, Audio, Camera
6	Peripherals, Exp. Connectors
7	Power & Mechanics

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

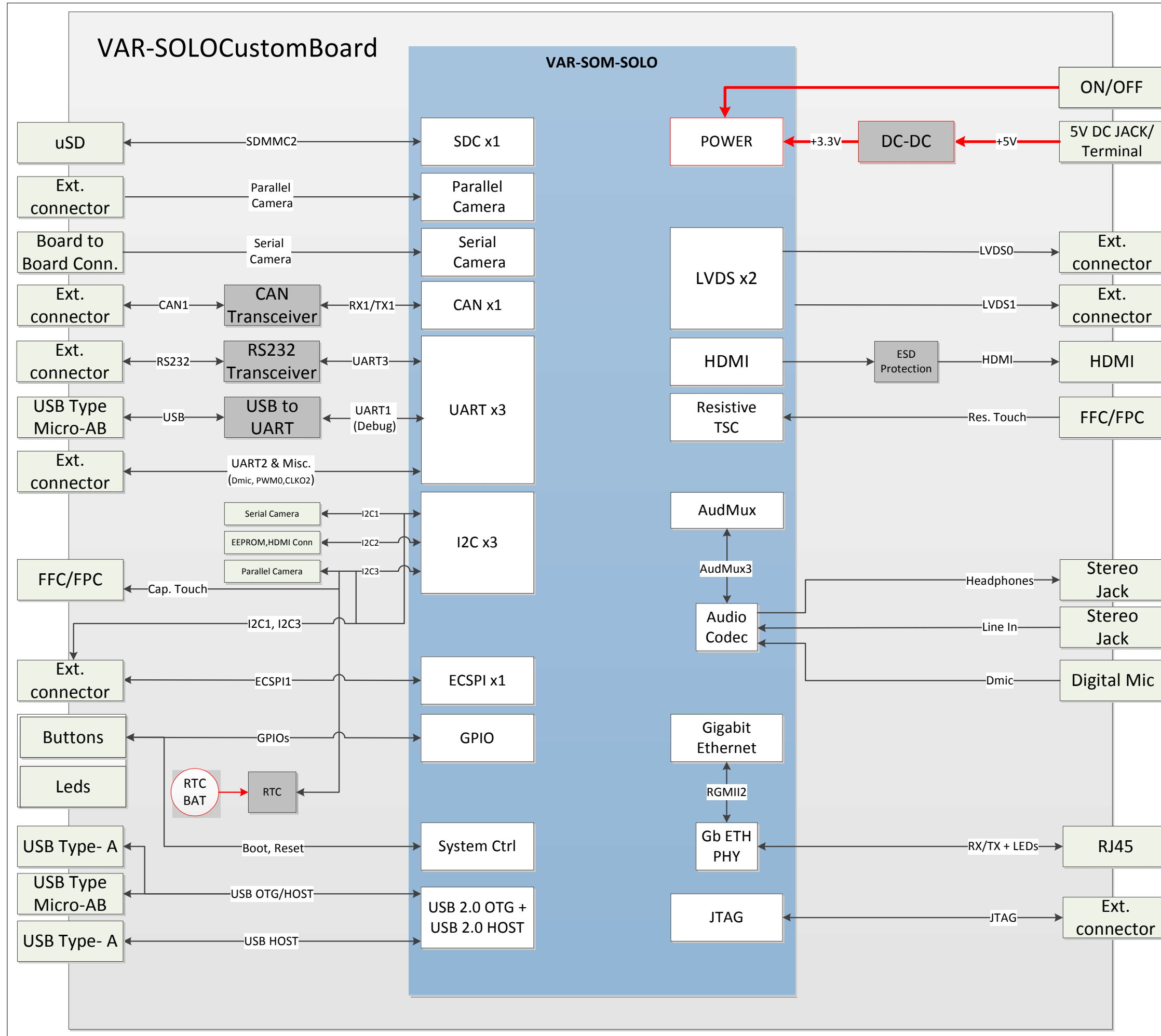
Document	Carrier	
1.0	1.0	Initial
1.1	1.1	Production
1.2	1.1A	Camera Connector P/N Change
1.3	1.1A	Added note for UART3_RTS signal
1.4	1.2	Camera connector P/N and connection changed D102 connection change RN100 removed
1.5	1.2	Added note for RESET# signal

Title: 01. Cover

Size: A3	Document Number: VAR-SOLOCustomBoard	Project: VAR-SOLOCustomBoard	Rev: 1.2
----------	--------------------------------------	------------------------------	----------

Designer: <Designer> Approved By: <Approved By>
Date: Wednesday, June 28, 2017 Sheet 1 of 7

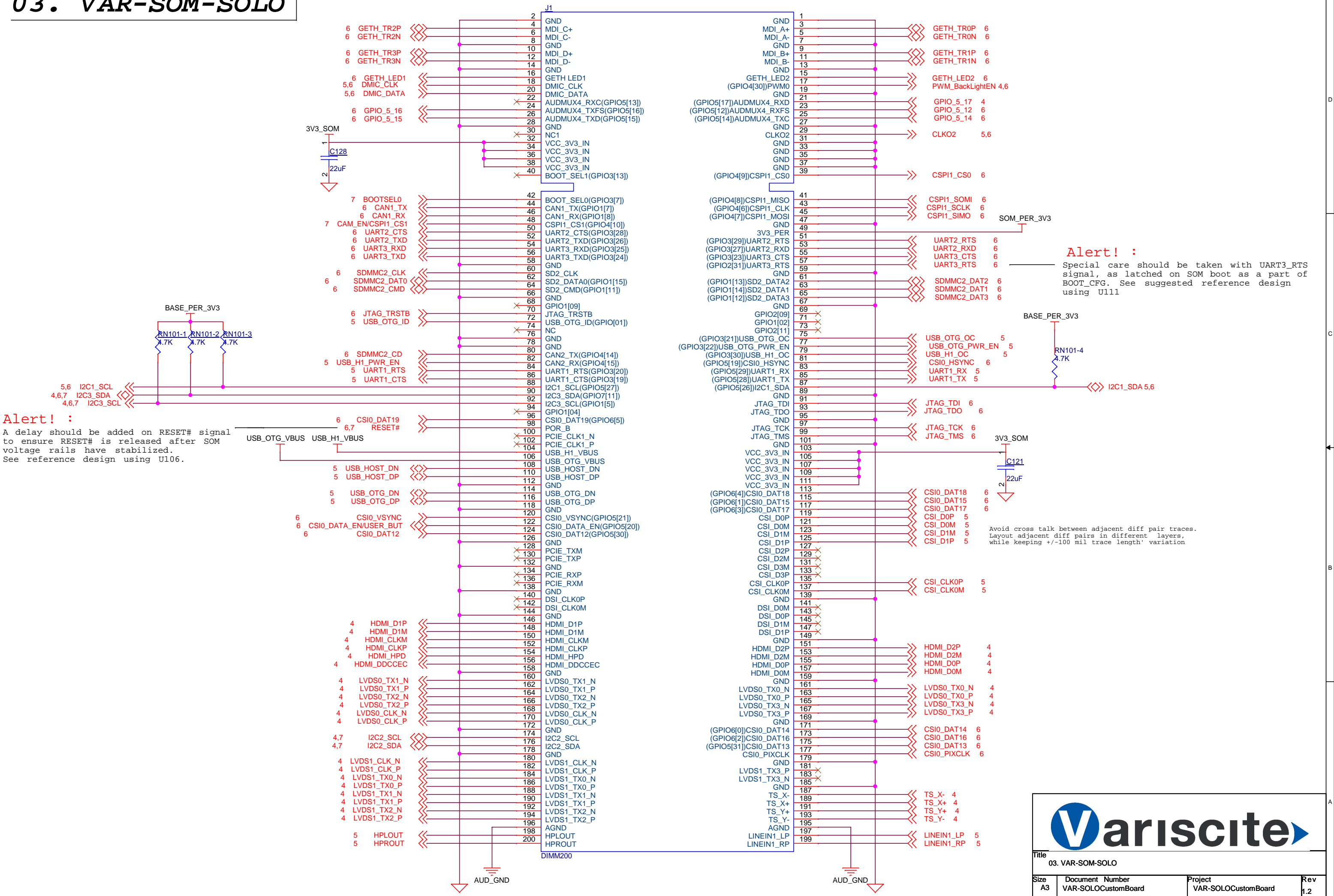
02 - Block Diagram



Variscite

Title 02. Block Diagram			
Size A3	Document Number VAR-SOLOCustomBoard	Project VAR-SOLOCustomBoard	Rev 1.2
Designer: <Designer>		Approved By: <Approved By>	
Date: Tuesday, February 16, 2016		Sheet 2 of 7	


03. VAR-SOM-SOLO



Alert! :
 A delay should be added on RESET# signal to ensure RESET# is released after SOM voltage rails have stabilized. See reference design using U106.

Alert! :
 Special care should be taken with UART3_RTS signal, as latched on SOM boot as a part of BOOT_CFG. See suggested reference design using U111

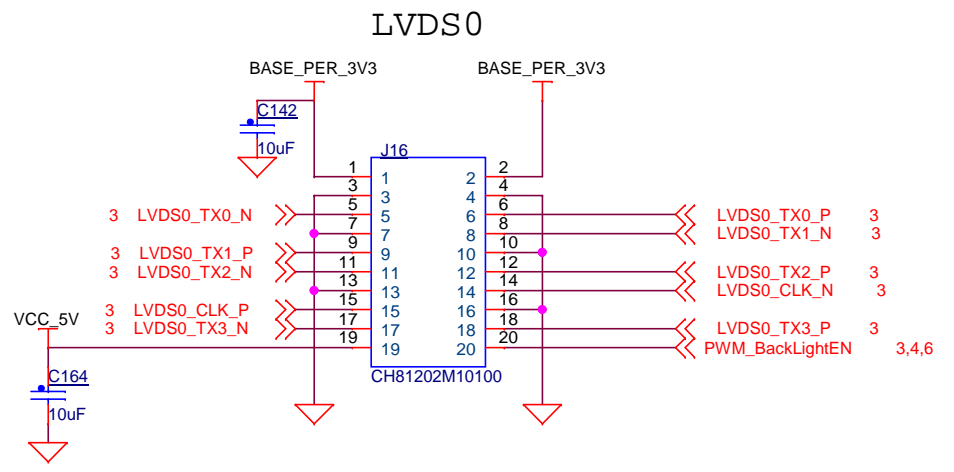
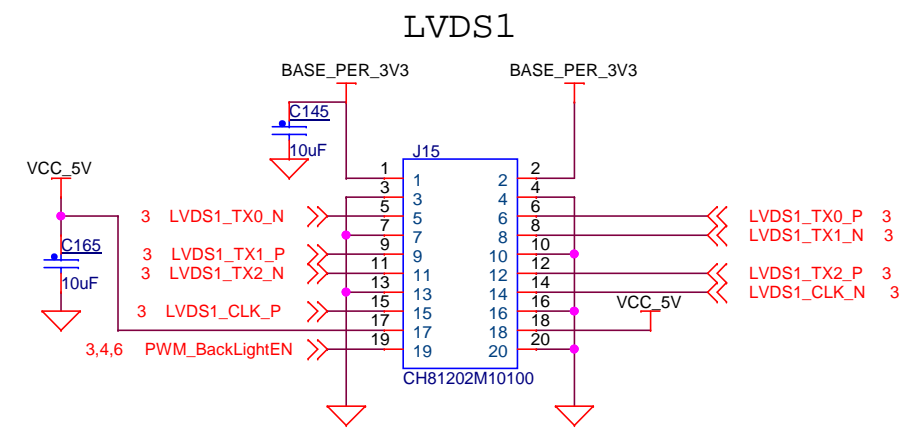
Avoid cross talk between adjacent diff pair traces. Layout adjacent diff pairs in different layers, while keeping +/-100 mil trace length' variation



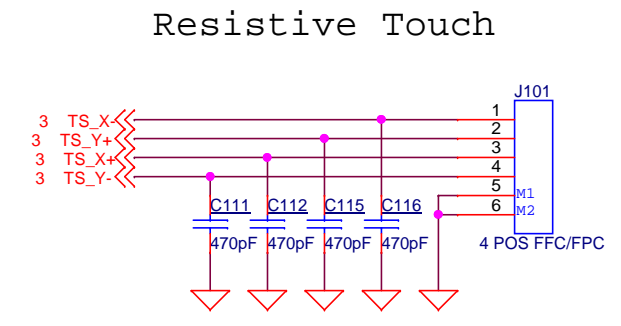
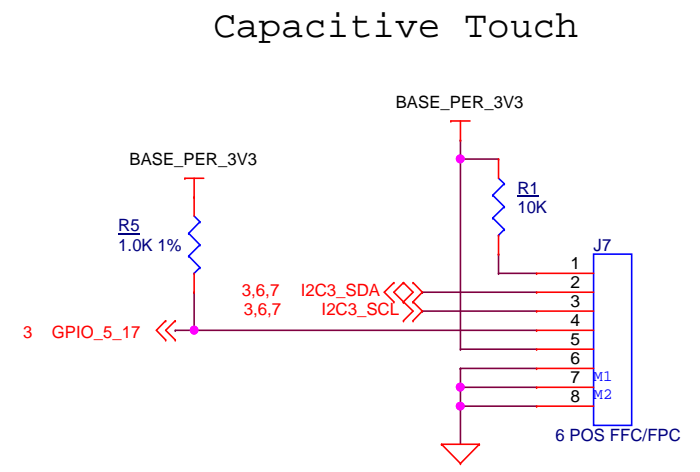
Title 03. VAR-SOM-SOLO			
Size A3	Document Number VAR-SOLOCustomBoard	Project VAR-SOLOCustomBoard	Rev 1.2
Designer: Date: Wednesday, June 28, 2017		Approved By: Sheet 3 of 7	

04. Display, Touch, HDMI

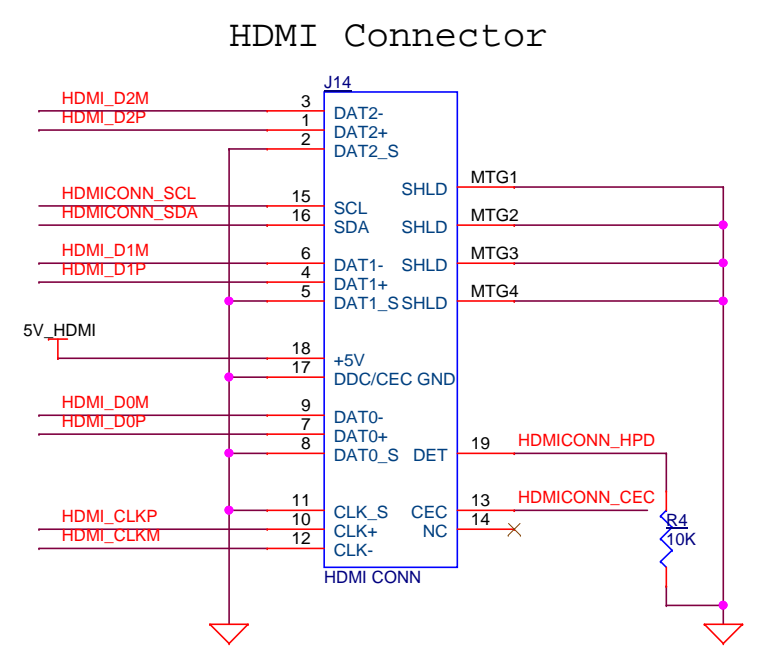
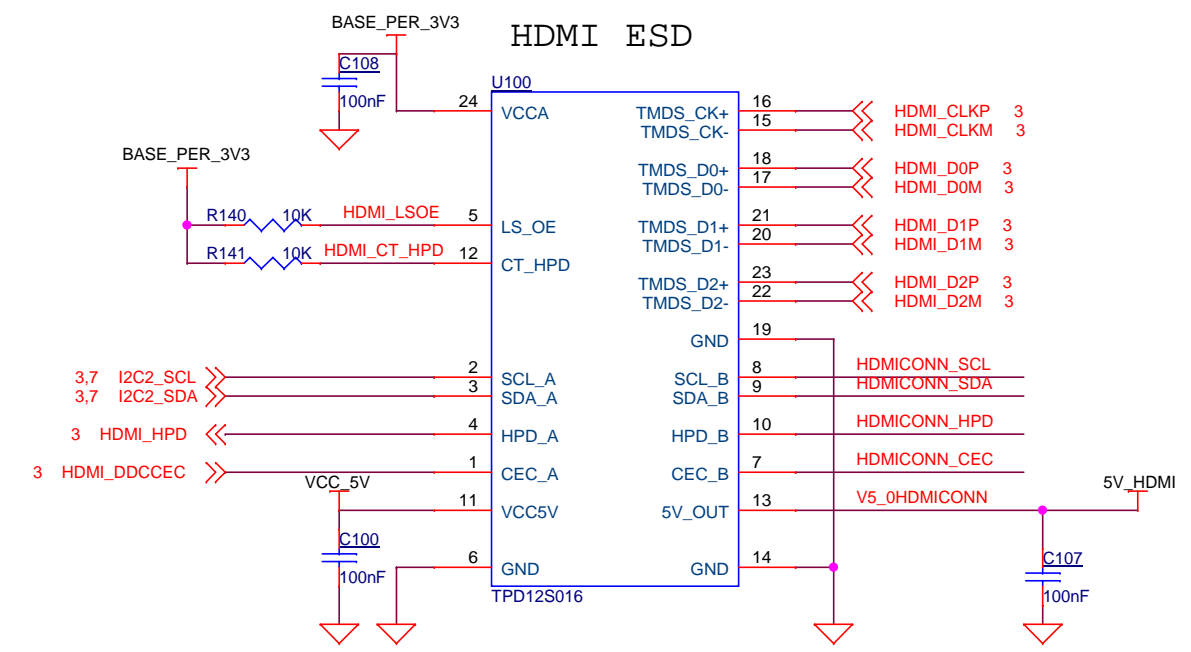
Display



Touch

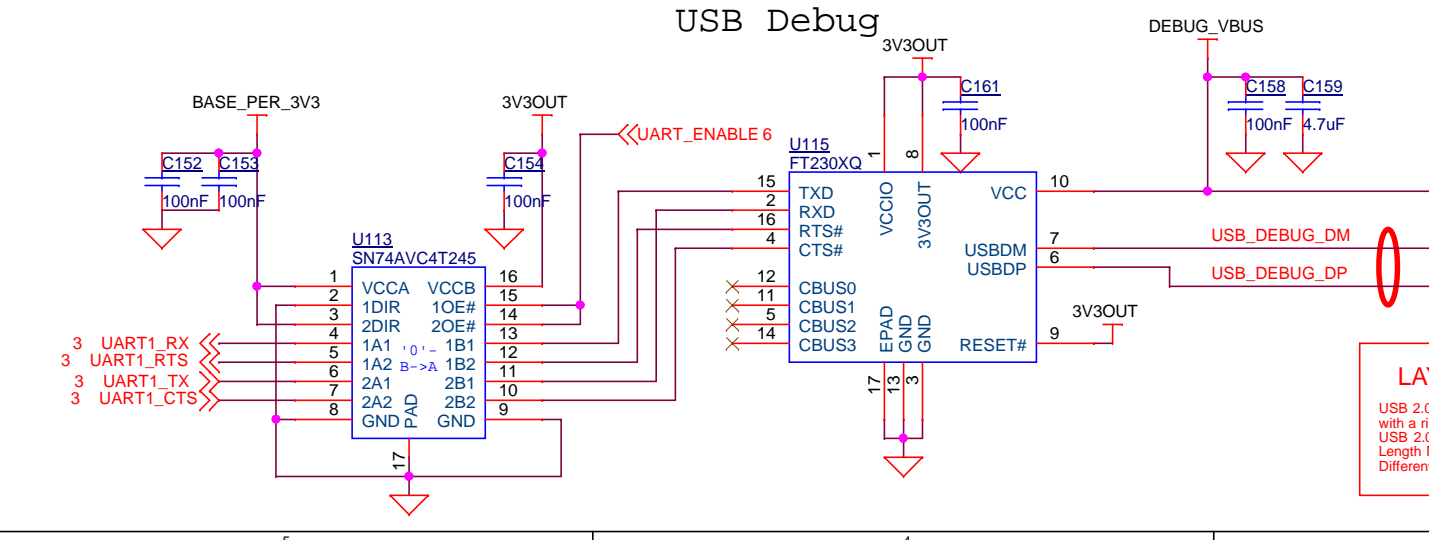
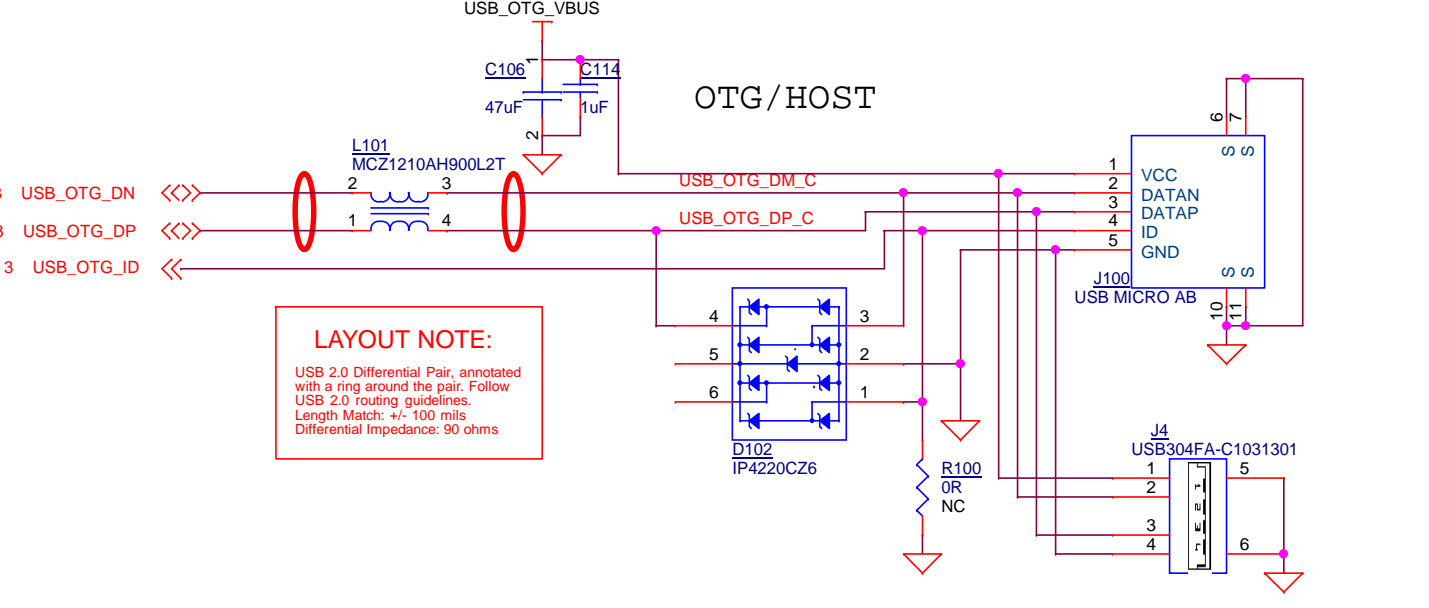
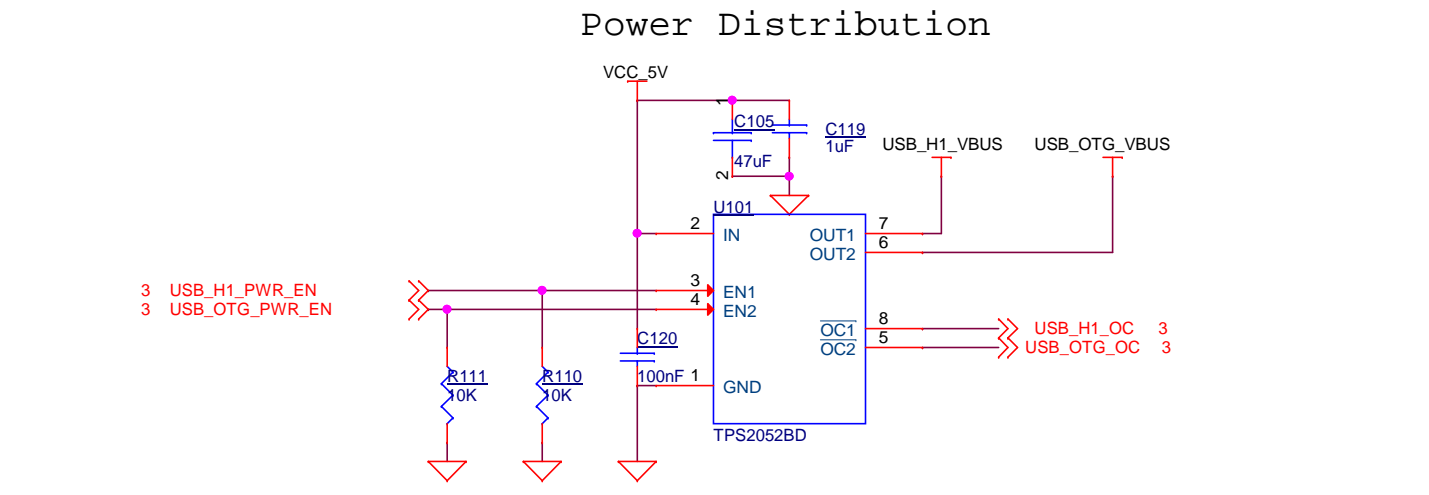
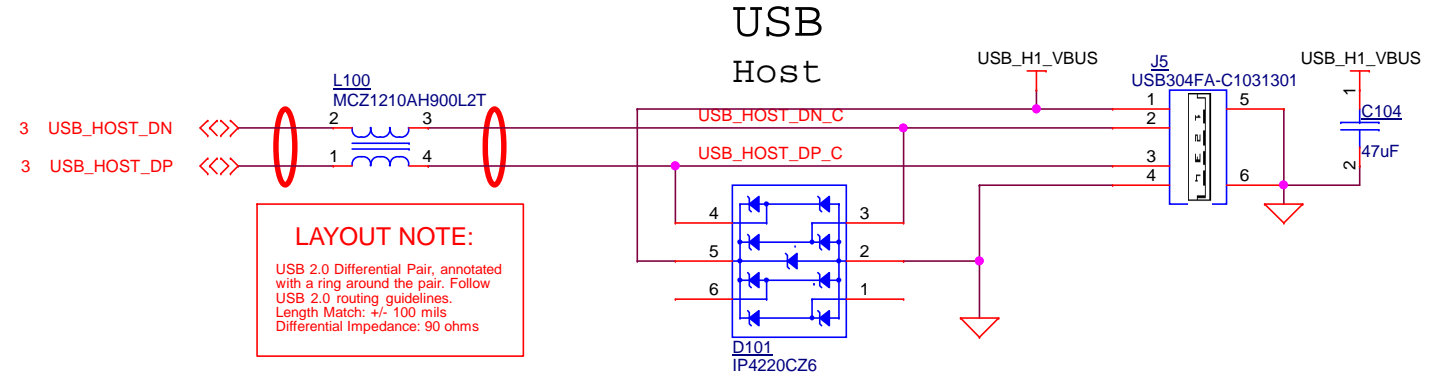


HDMI

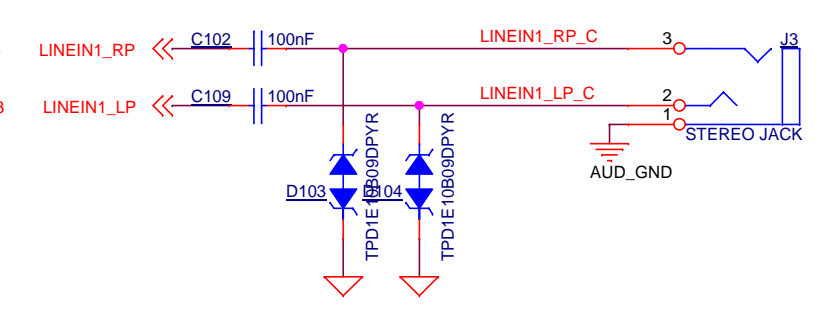
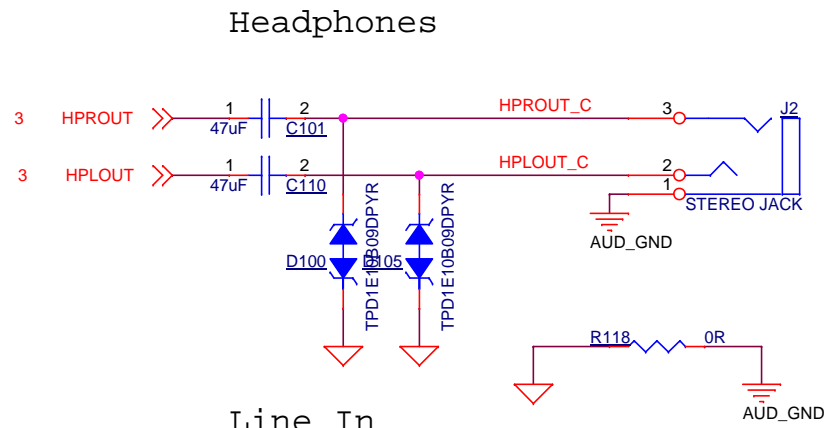
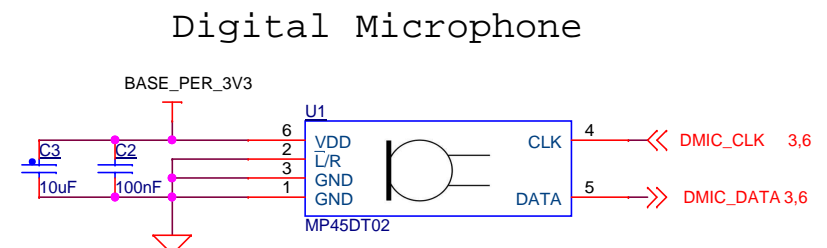


Title 04. Display ,Touch, HDMI
Size A3 **Document Number** VAR-SOLOCustomBoard **Project** VAR-SOLOCustomBoard **Rev** 1.2
Designer: <Designer> **Approved By:** <Approved By>
Date: Tuesday, February 16, 2016 **Sheet** 4 **of** 7

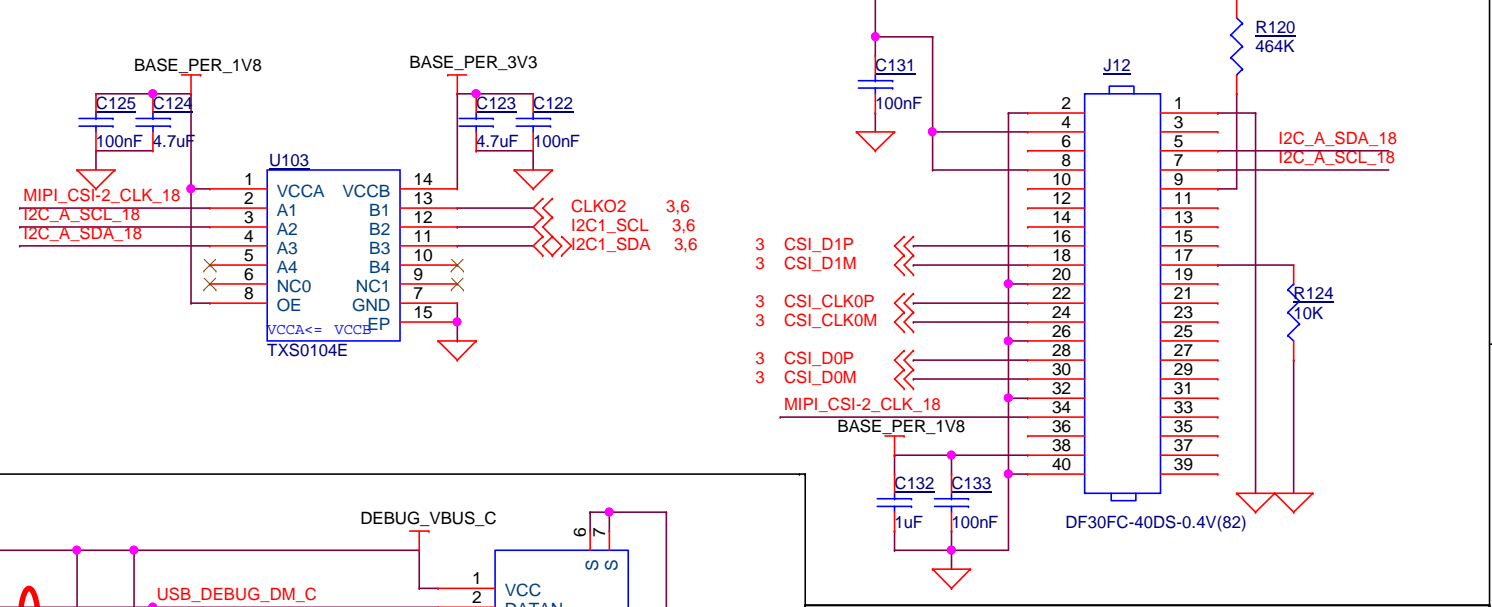
05. USB, Audio, Camera



Audio



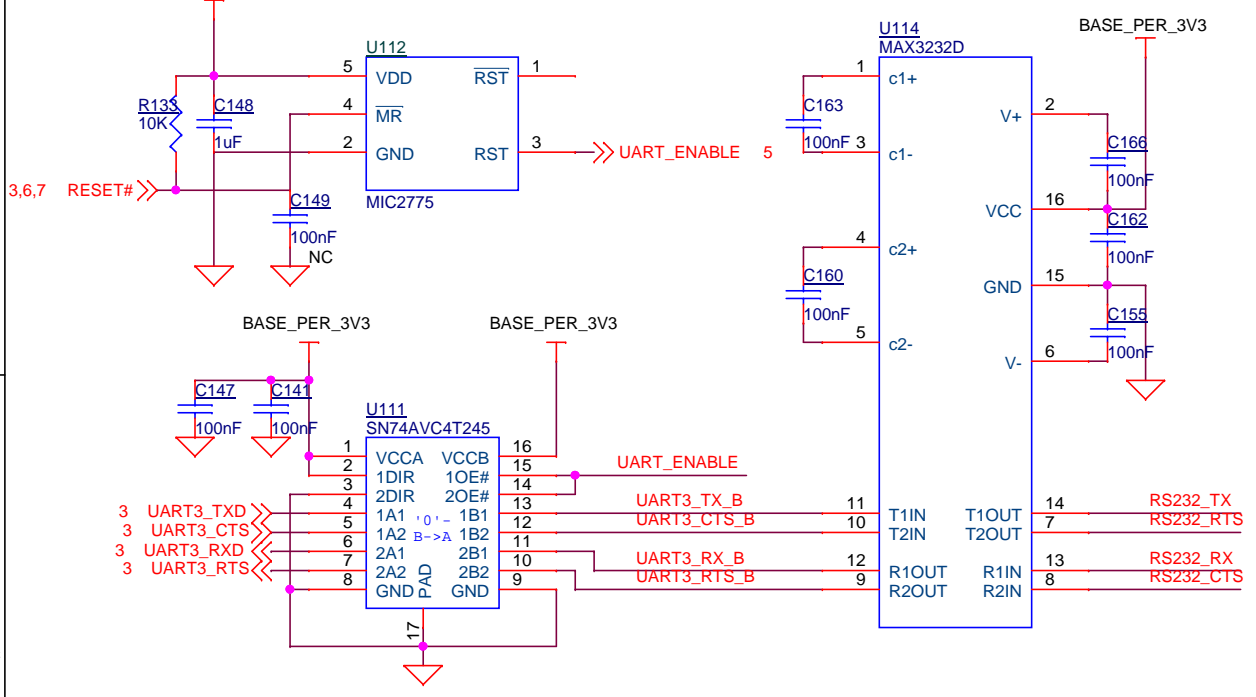
Camera



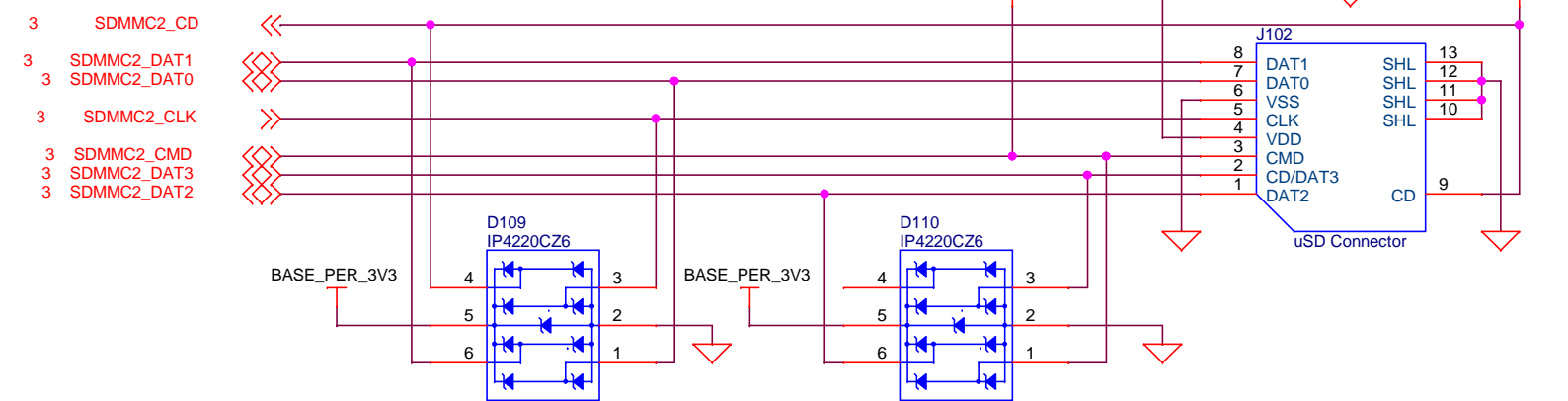
Title 05. USB, Audio, Camera			
Size A3	Document Number VAR-SOLOCustomBoard	Project VAR-SOLOCustomBoard	Rev 1.2
Designer: <Designer>		Approved By: <Approved By>	
Date: Wednesday, May 18, 2016		Sheet 5 of 7	

06. Peripherals, Exp. Connectors

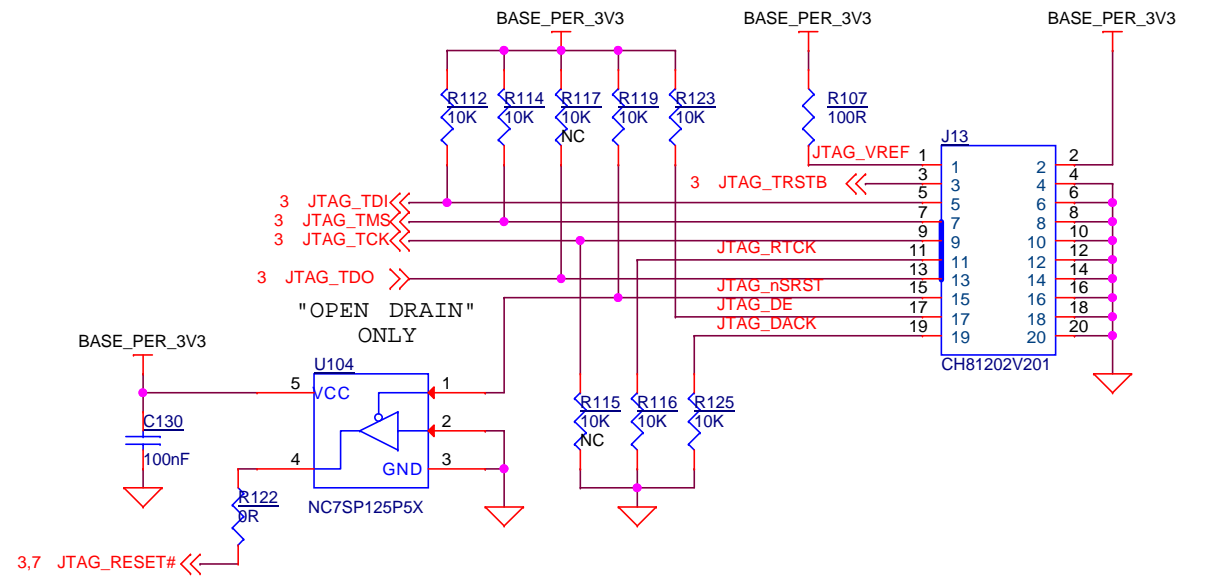
UART3-RS232



uSD CARD

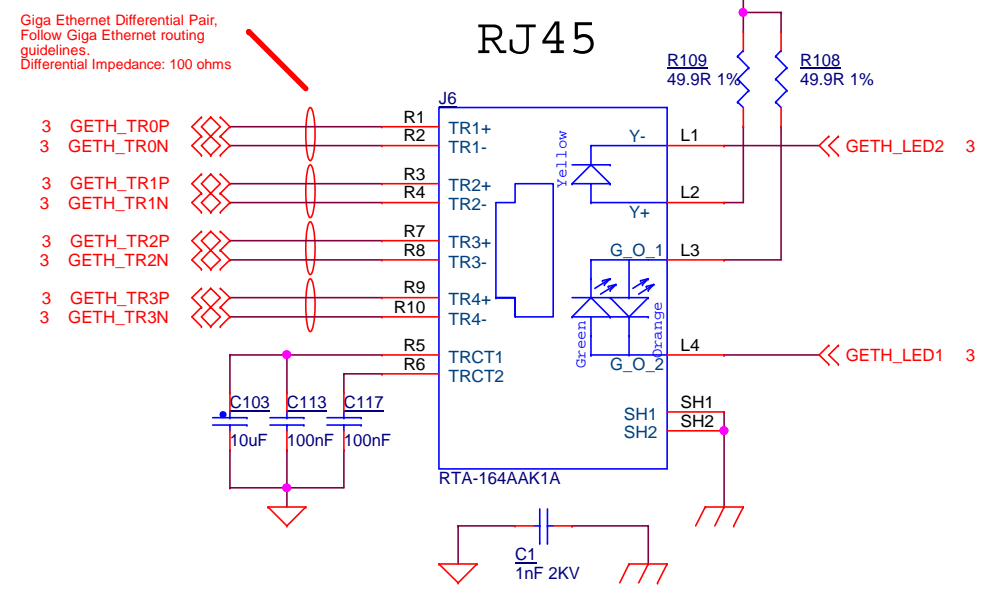


JTAG

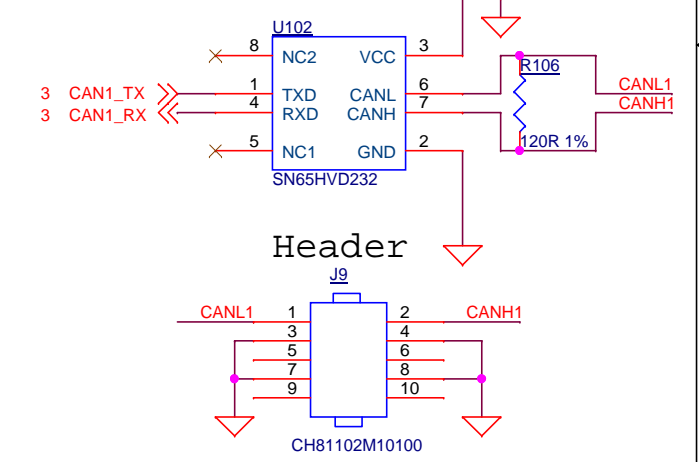


Giga Ethernet

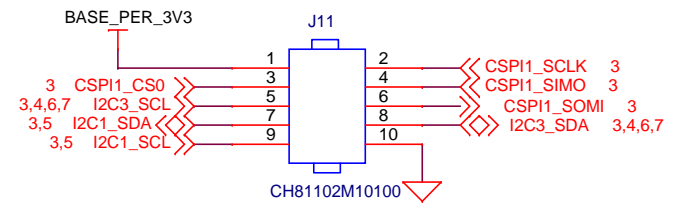
LAYOUT NOTE:
Giga Ethernet Differential Pair, Follow Giga Ethernet routing guidelines.
Differential Impedance: 100 ohms



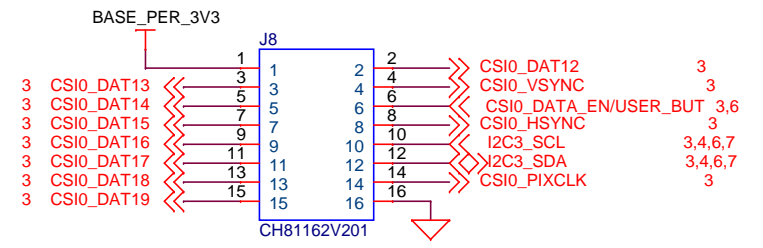
CAN1



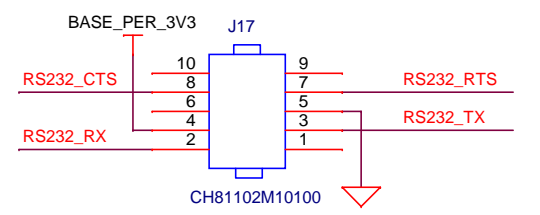
SPI/I2C



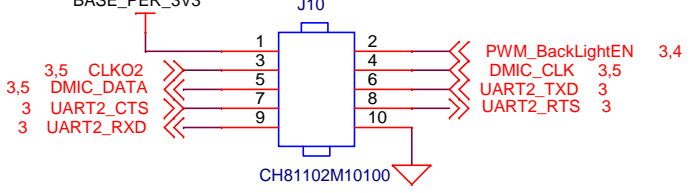
Parallel Camera



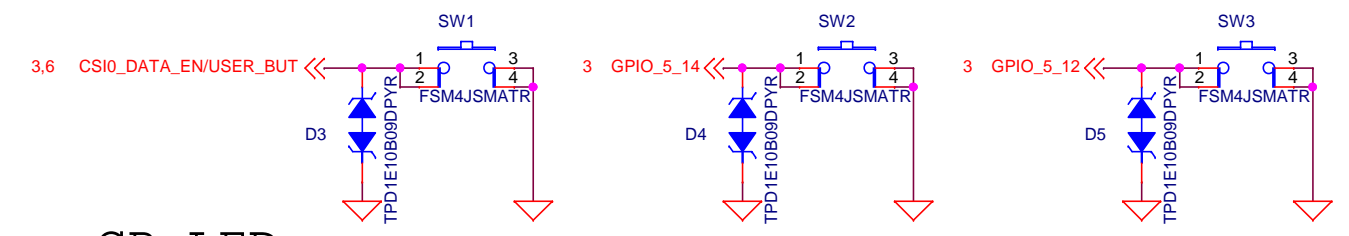
RS232 Header



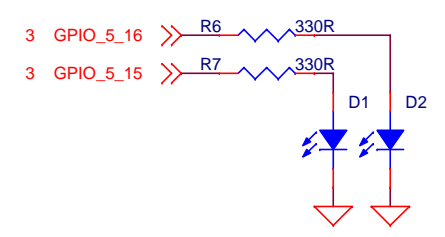
MISC



USER BUTTONS



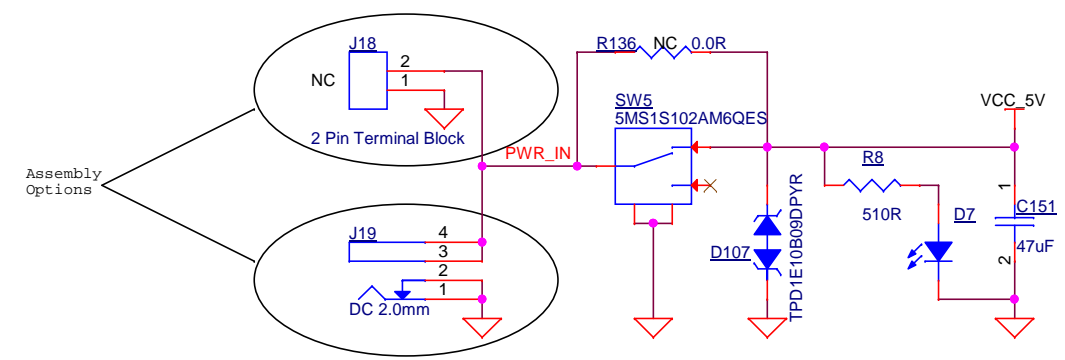
GP LED



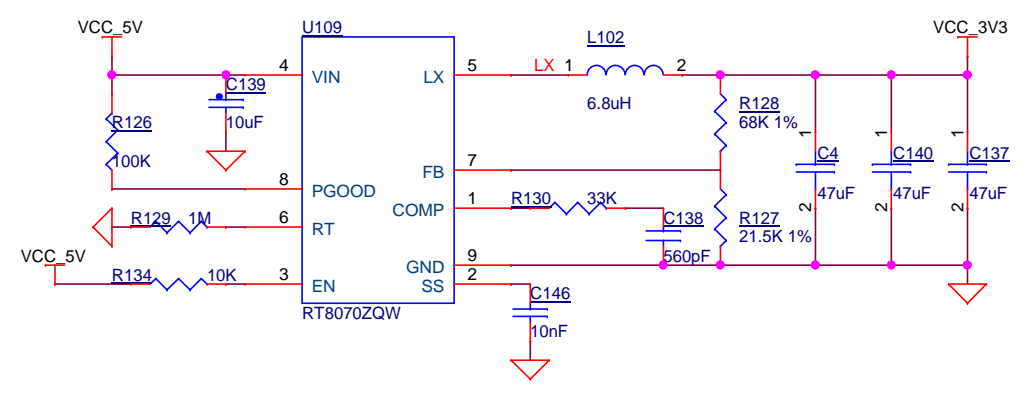
Title: 06. Peripherals, Exp. Connectors			
Size: A3	Document Number: VAR-SOLOCustomBoard	Project: VAR-SOLOCustomBoard	Rev: 1.2
Designer: <Designer>	Approved By: <Approved By>		Sheet: 6 of 7
Date: Tuesday, February 16, 2016			

07. Power & Mechanics

DC-IN - 5V

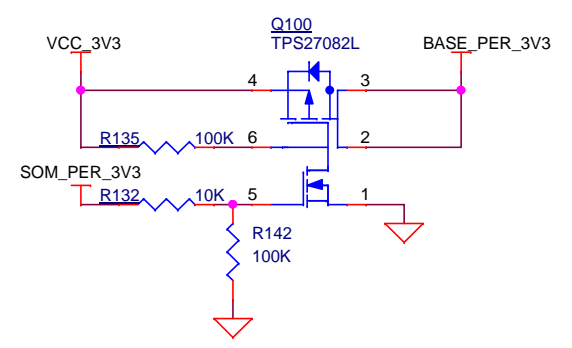


3.3V Digital 4A

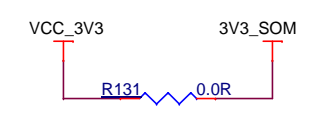


Note:
place 3 x 47uF caps
for full load operation

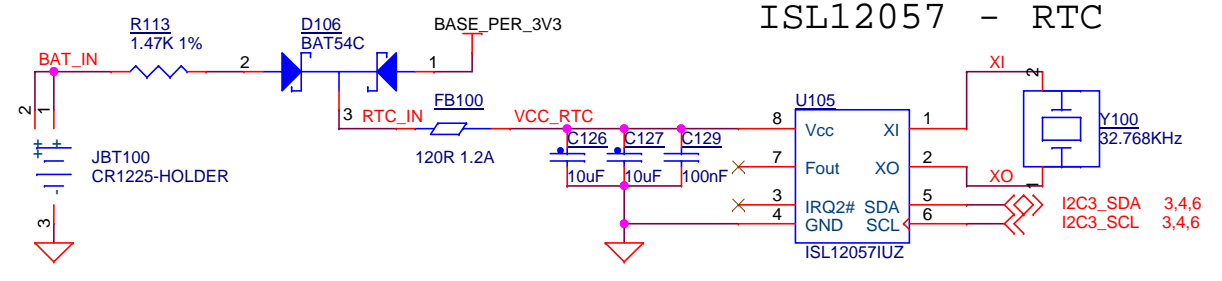
3.3V Base



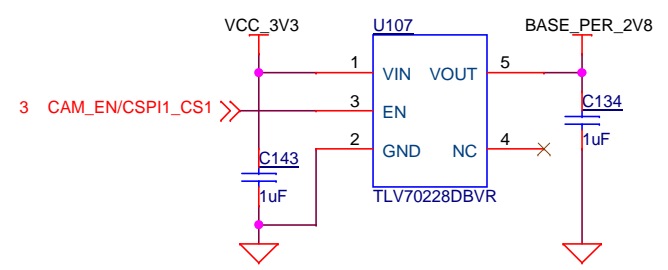
SOM Power



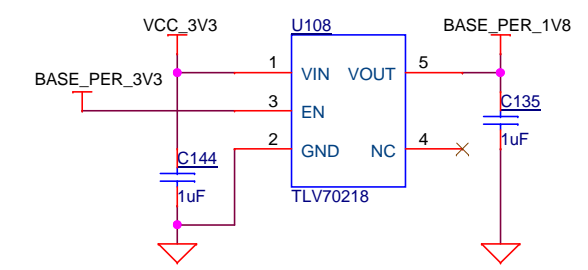
RTC Battery



2.8V Base



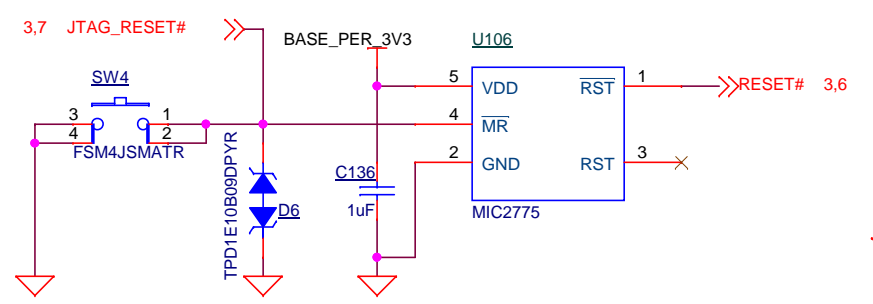
1.8V Base



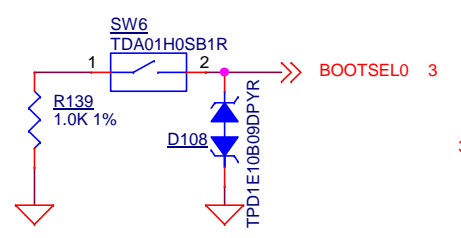
Alert! :

A delay should be added on RESET# signal to ensure RESET# is released after SOM voltage rails have stabilized

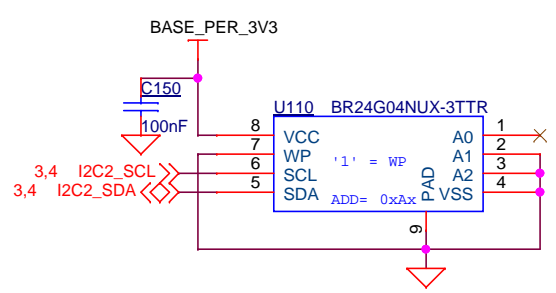
Reset



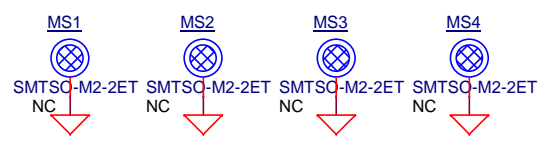
Sys-boot



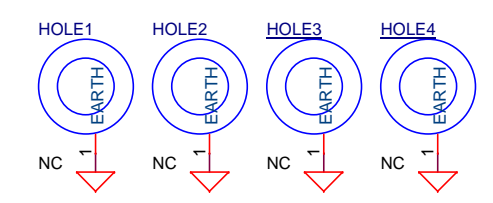
Board ID



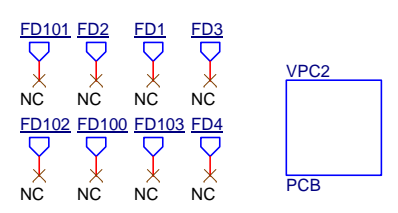
4X SOM CONN HOLES



4X Chassis Holes



Fiducial



Variscite			
Title: 07. Power & Mechanics			
Size: A3	Document Number: VAR-SOLOCustomBoard	Project: VAR-SOLOCustomBoard	Rev: 1.2
Designer: <Designer>		Approved By: <Approved By>	
Date: Wednesday, June 28, 2017		Sheet 7 of 7	