

VAR-SD410CustomBoard



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Disclaimer:

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

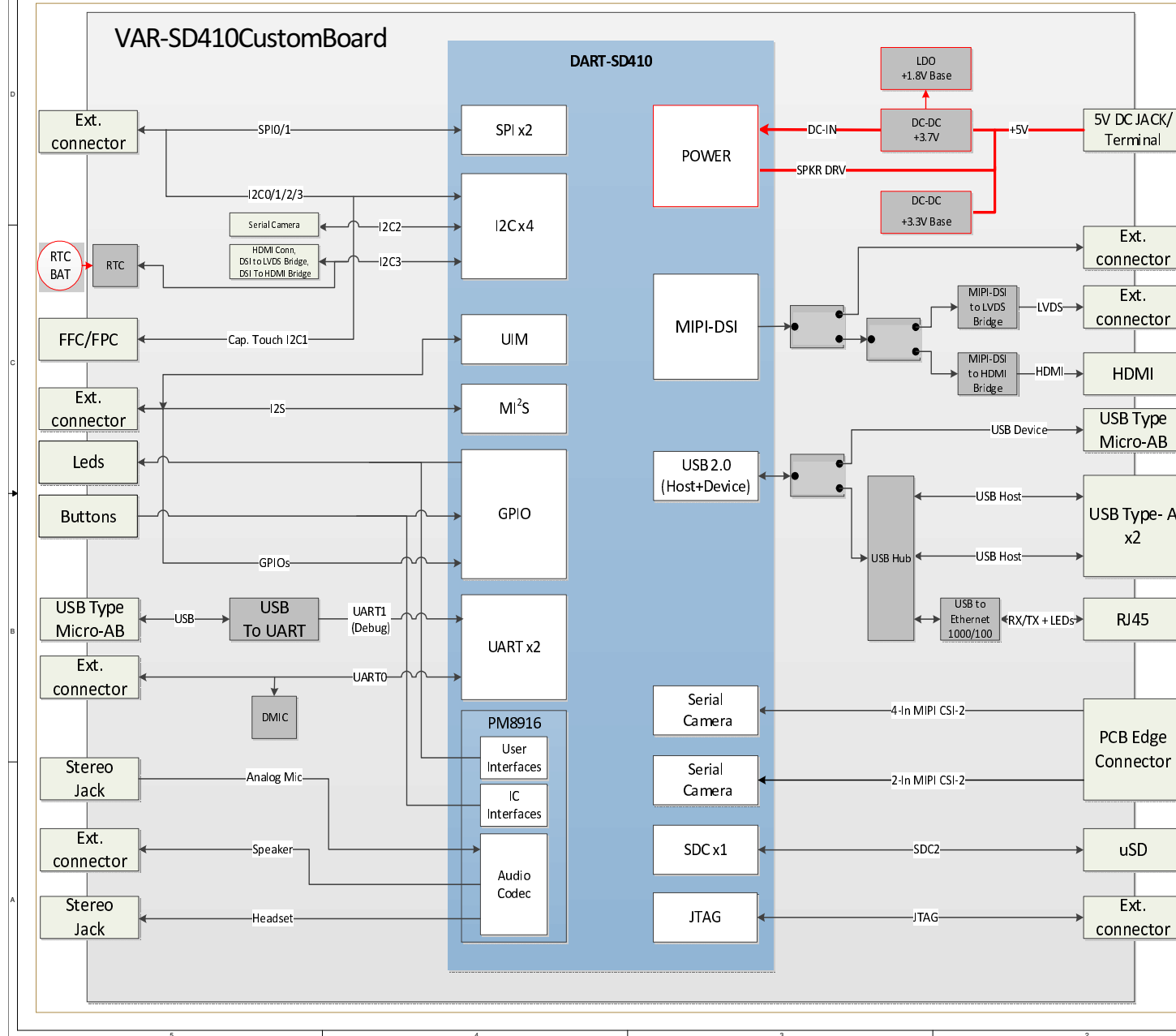


Revision History

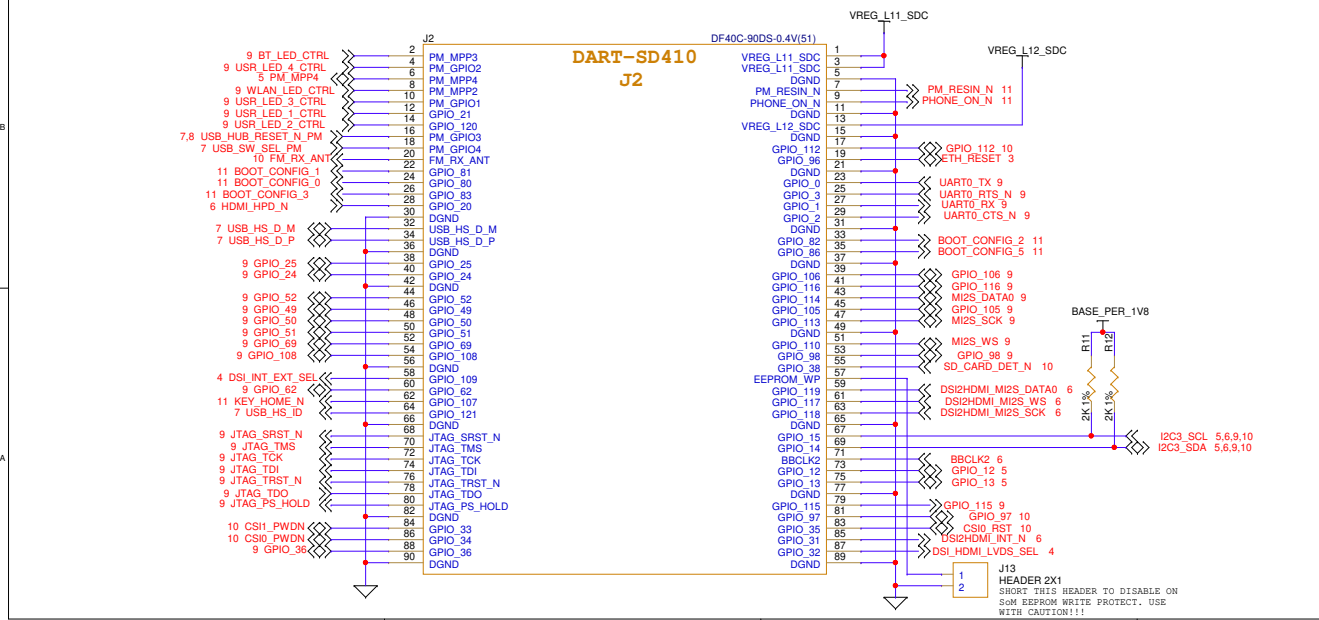
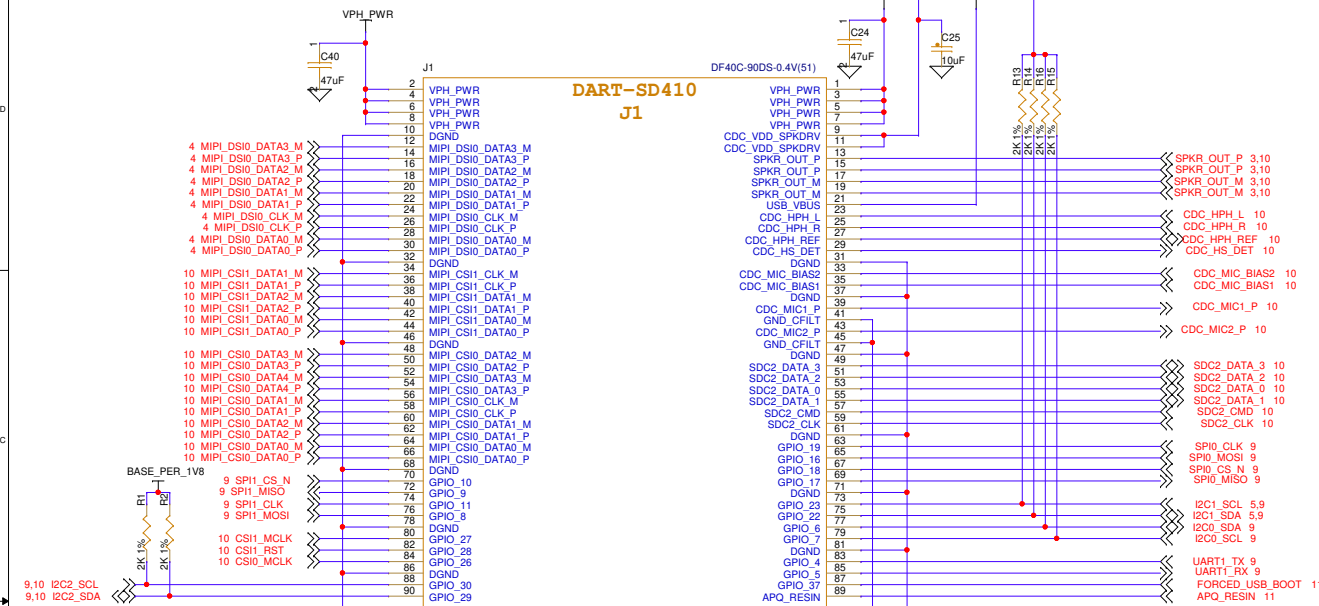
Document Rev	Schematics Rev	Description
Rev 1.00	Rev 1.00	Initial Release
Rev 1.01	Rev 1.01	Reset button removed On/Off switch added Ethernet PHY Reset changed
Rev 1.02	Rev 1.01	MPP_GPIO pin names of the SOM changed to PM_GPIO
Rev 1.03	Rev 1.01A	SN65DSI84ZQER changed to SN65DSI84ZXHR

Title 01. Cover			
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Designer: Leonid S.	Approved By: Sunday, March 21, 2021	<Approved By: Sheet 1 of 11	

02 - Block Diagram

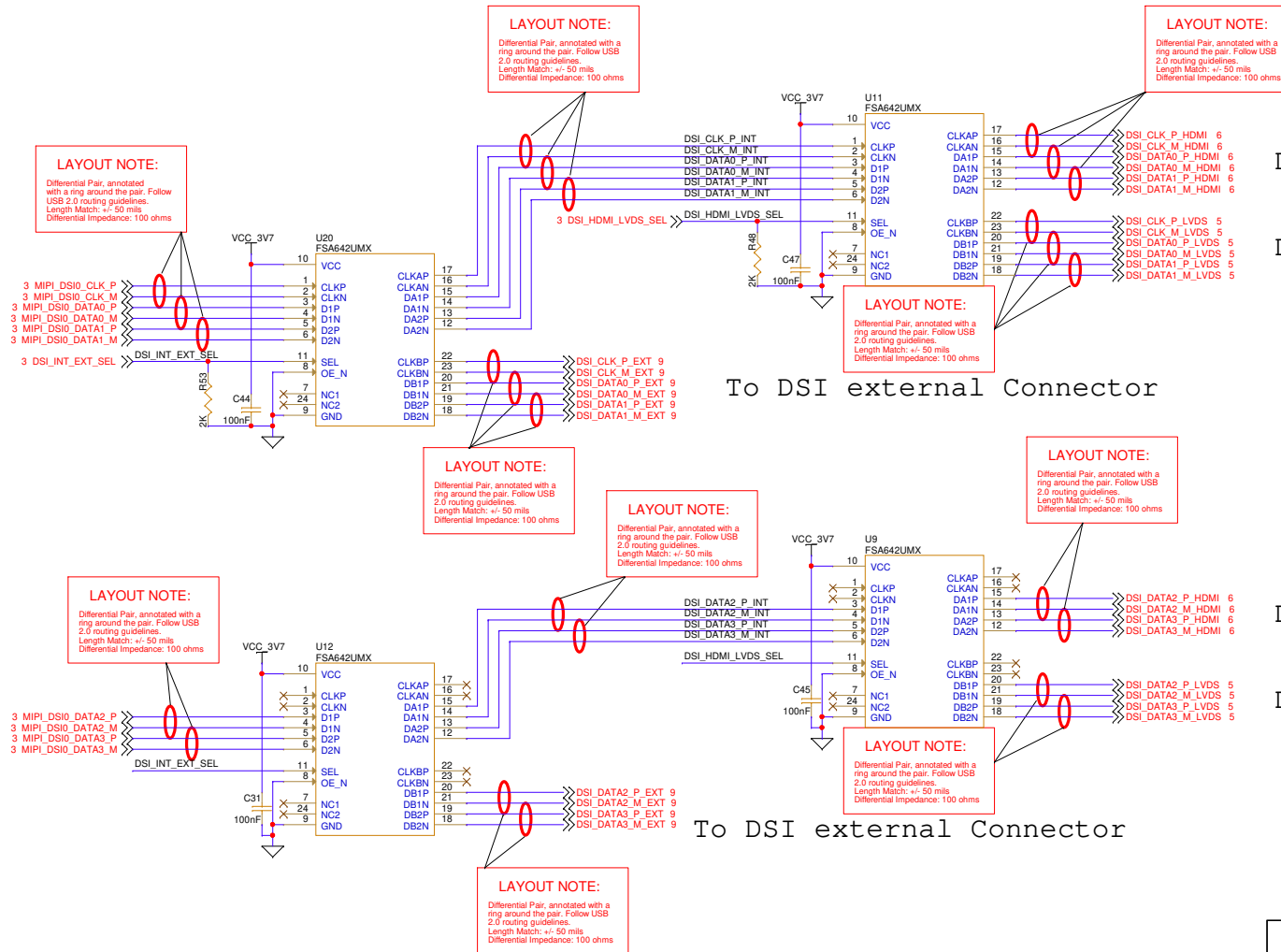


03. DART-SD410



Title			
03. DART-SD410			
Size	Document Number	Project	Rev
A3	VAR-SD410CustomBoard	VAR-SD410CustomBoard	1.01A
Designer:	Leonid S.	Approved By:	
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04. DSI SWITCH

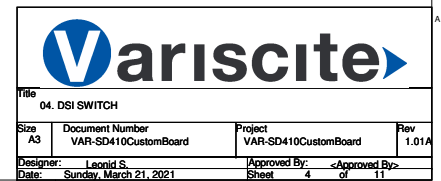


DSI to HDMI bridge

DSI to LVDS bridge

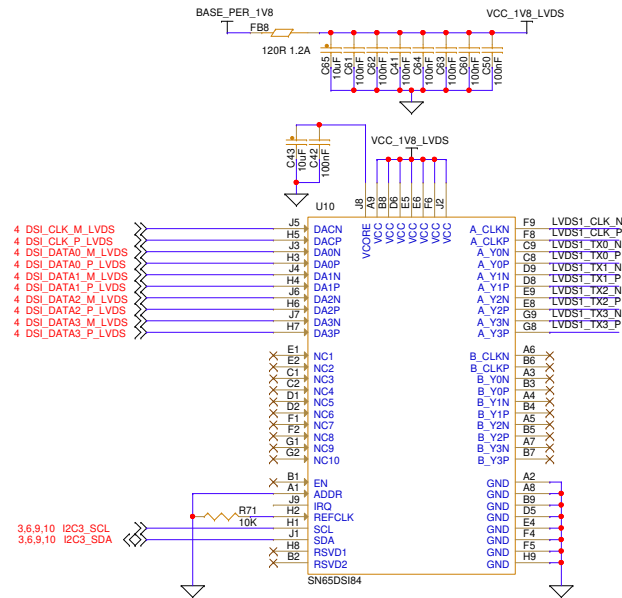
DSI to HDMI bridge

DSI to LVDS bridge

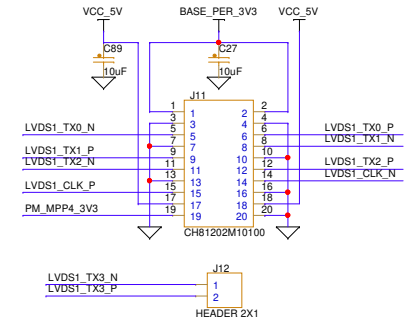


05. DSI TO LVDS

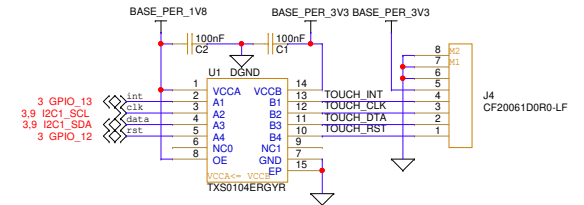
DSI to LVDS bridge



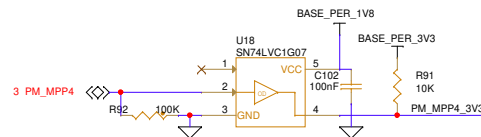
LVDS



Capacitive Touch



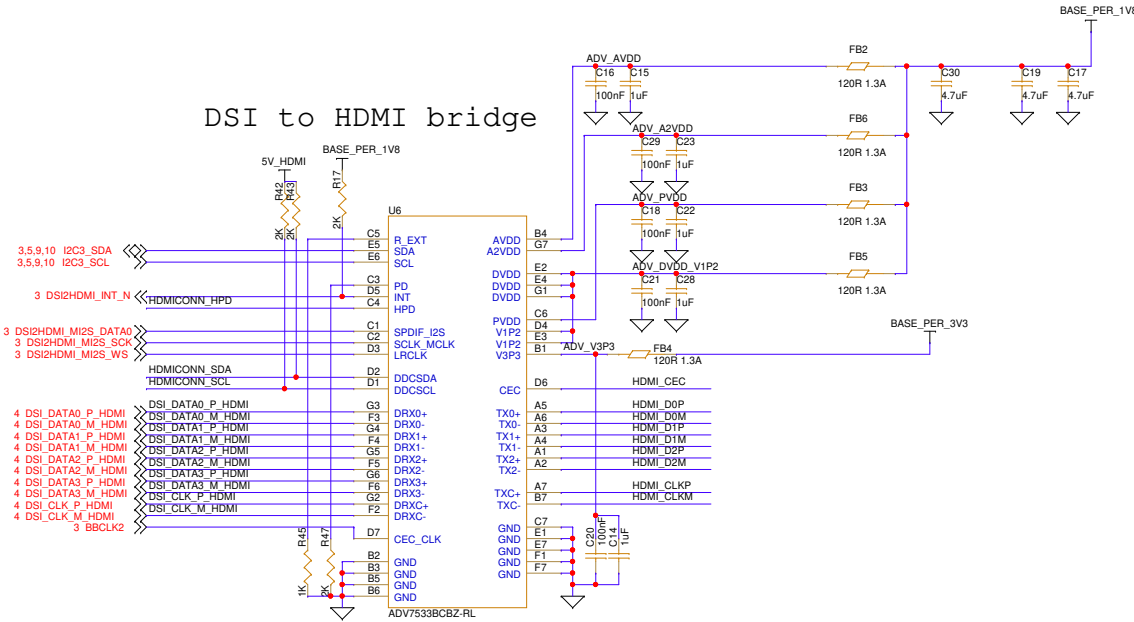
BACKLIGHT Level Shifter



Title 05. DSI TO LVDS			
Size A3	Document Number VAR-SD410CustomBoard	Project VAR-SD410CustomBoard	Rev 1.01A
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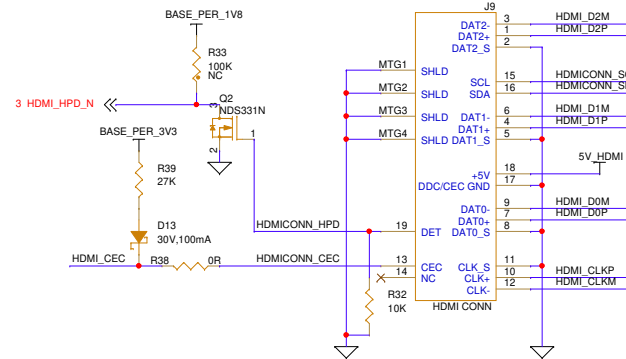
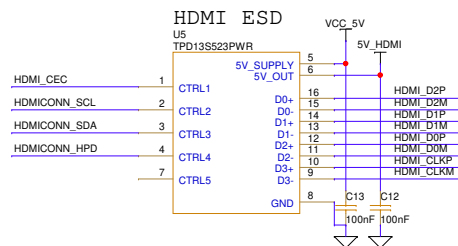
06. DSI TO HDMI

DSI to HDMI bridge



HDMI

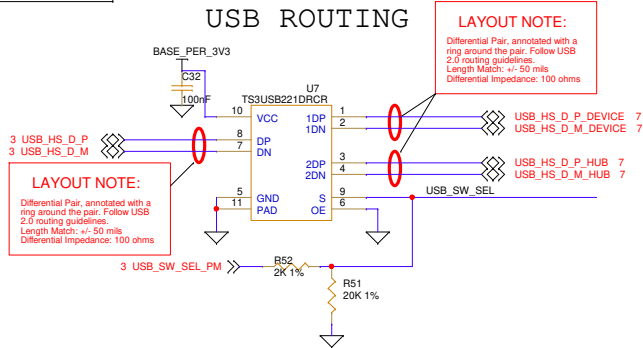
HDMI Connector



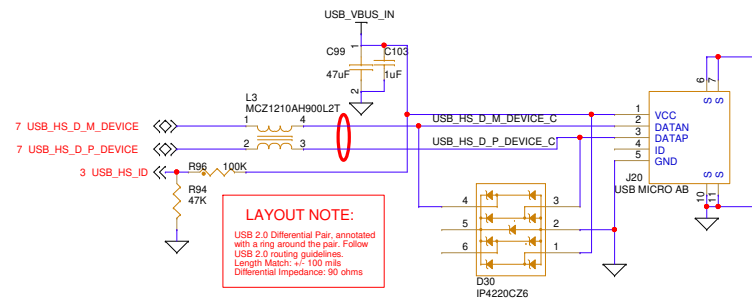
Title 06. DSI TO HDMI			
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Designer: Leonid S.		Approved By: <Approved By>	
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07. USB

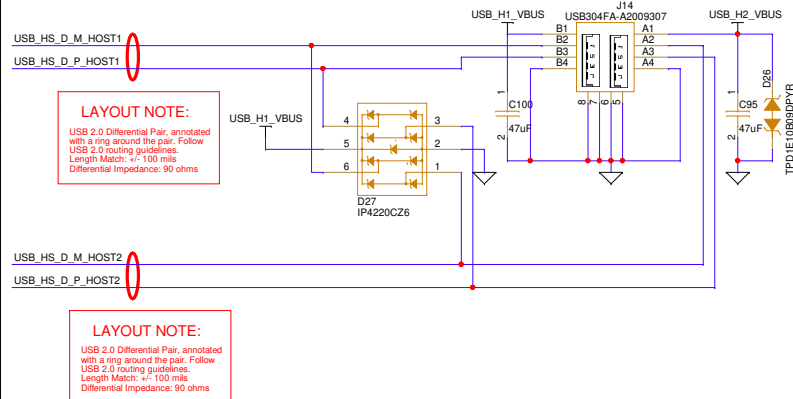
USB ROUTING



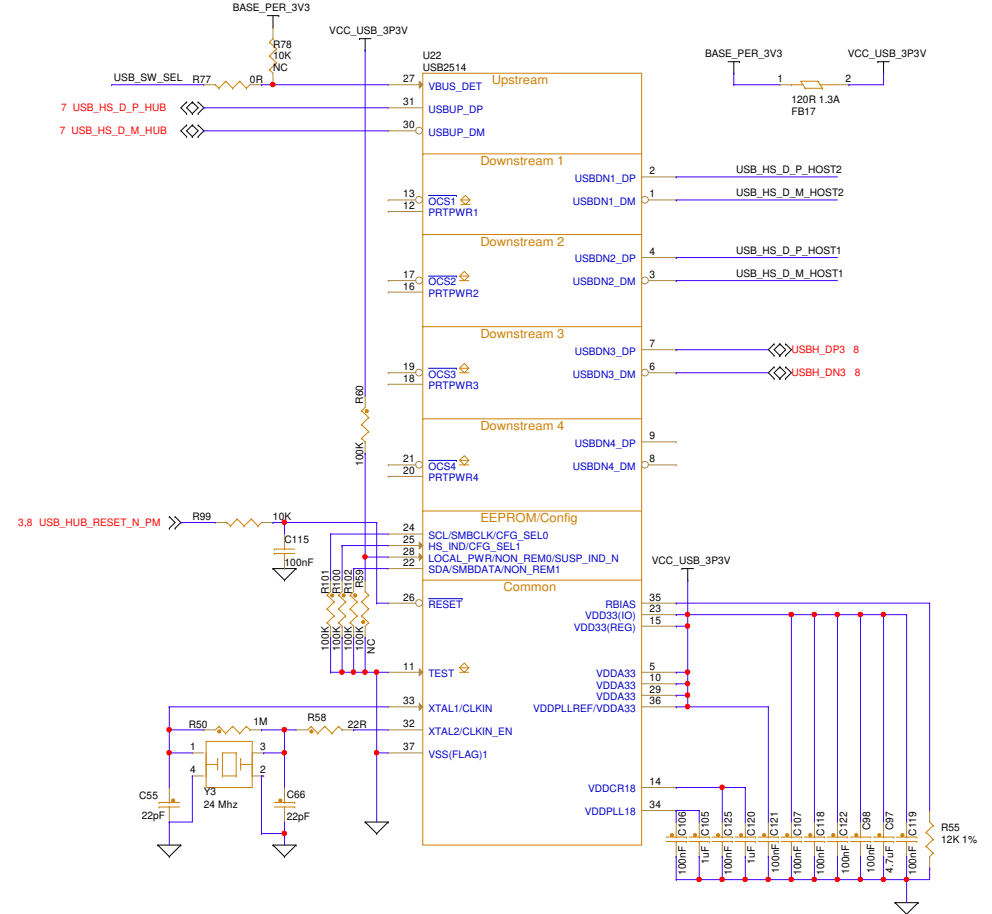
USB DEVICE



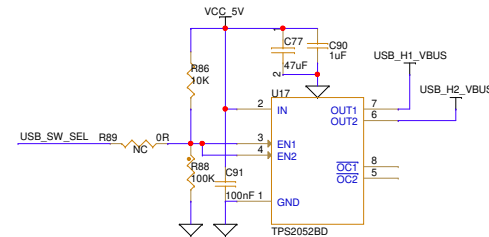
USB HOST



USB HUB

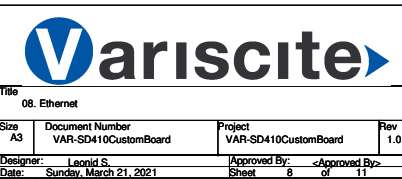
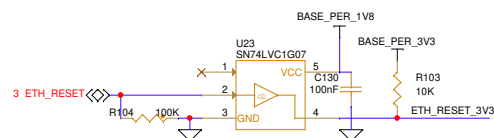
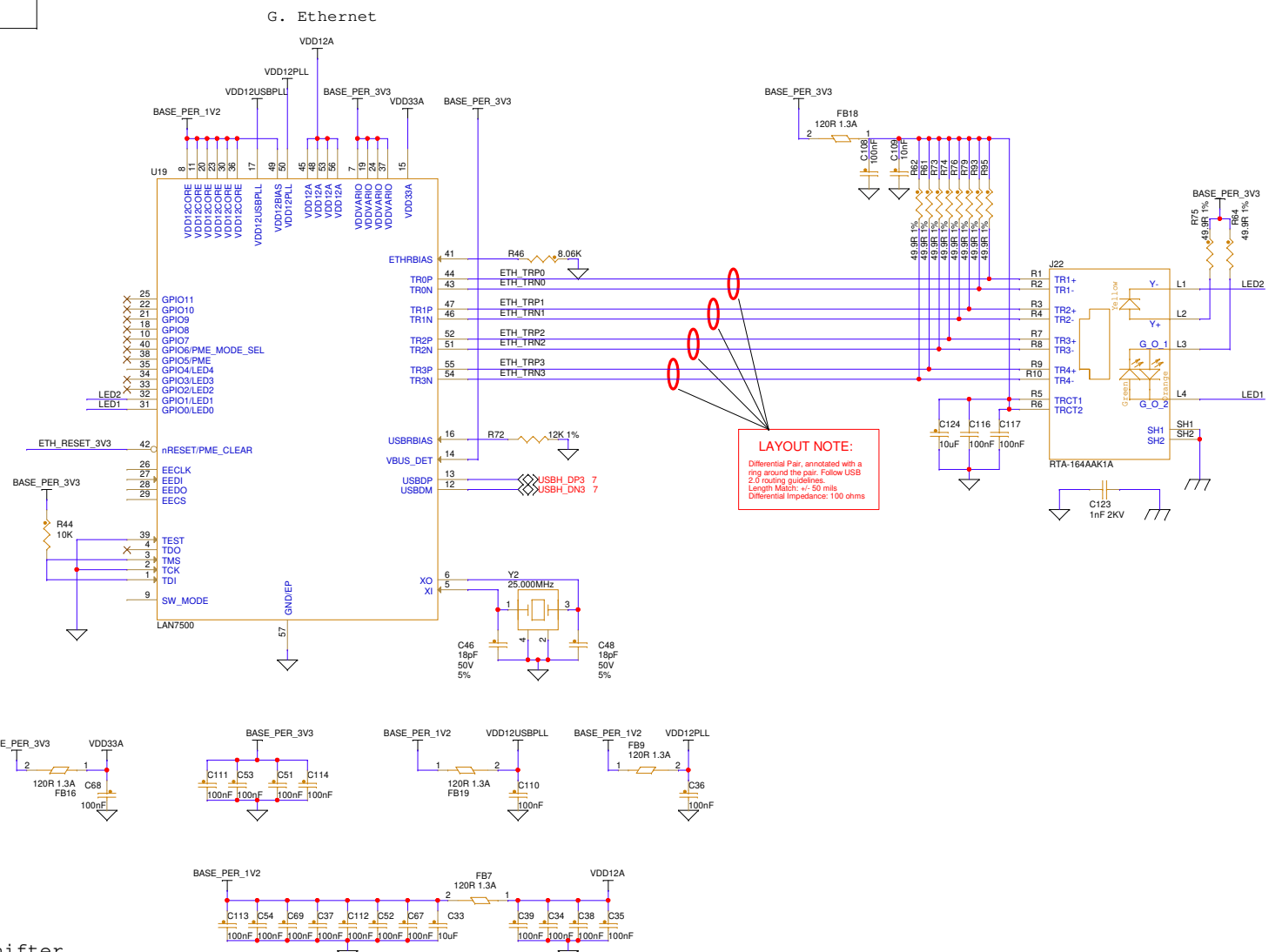


Power Distribution



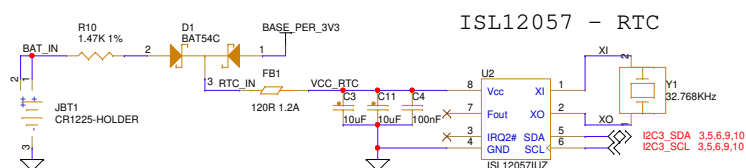
Title 07. USB			
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08. Ethernet

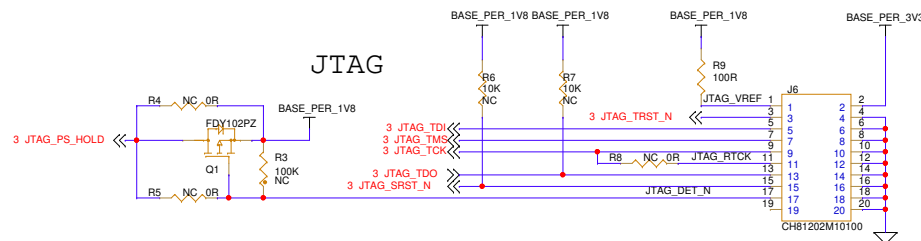


09. Debug, Exp Connectors

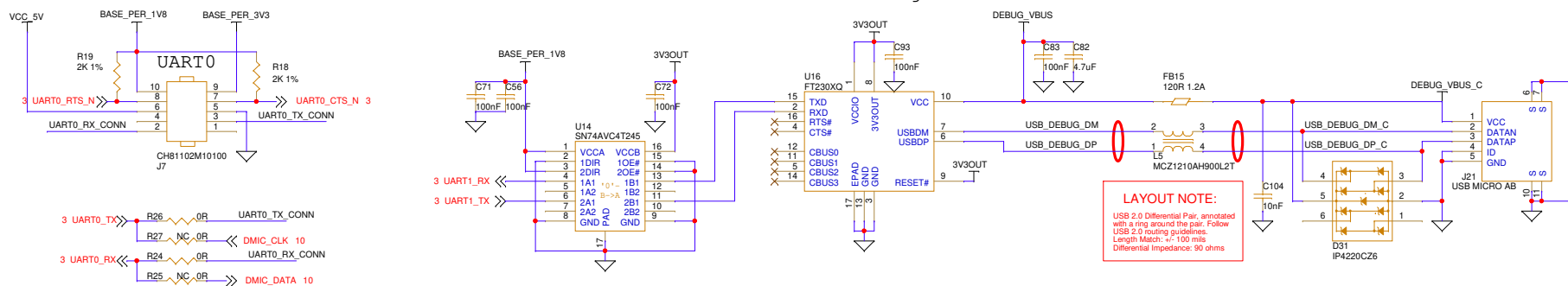
RTC Battery



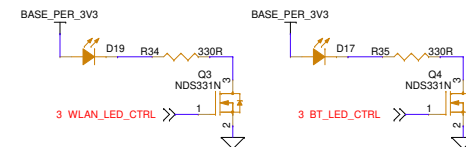
JTAG



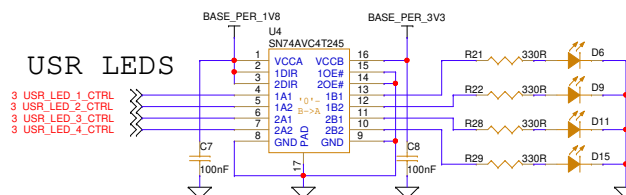
USB Debug



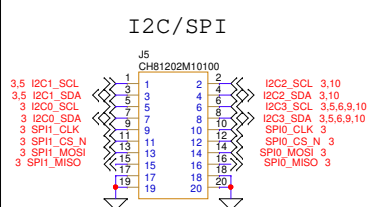
WLAN/BT LIDS



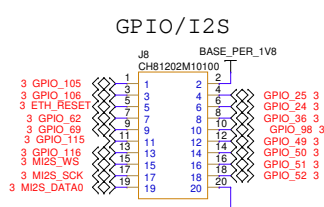
USR L E D S



I2C/SPI

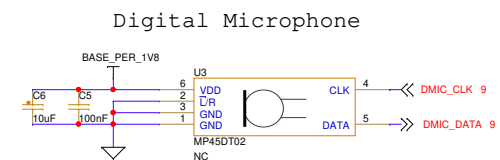
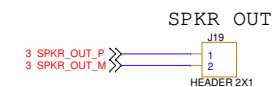
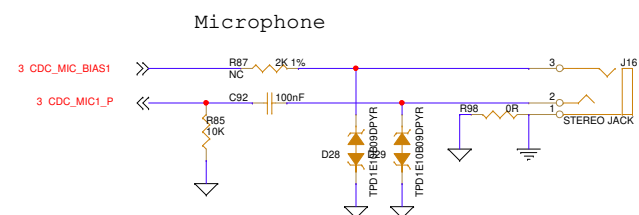
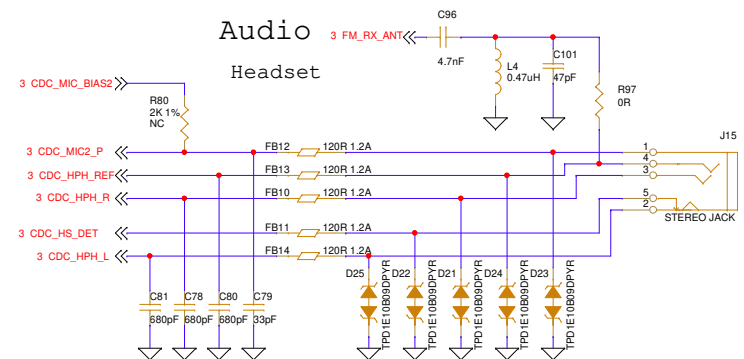
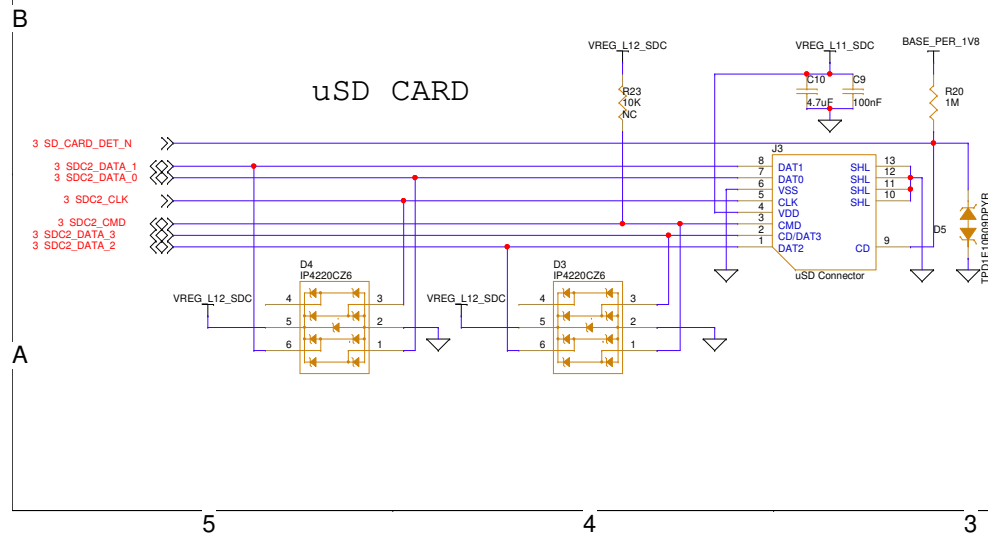
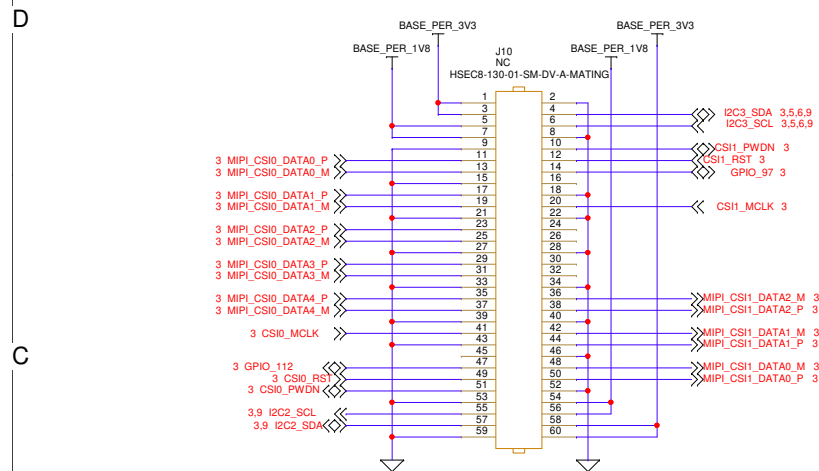


GPIO/I2S



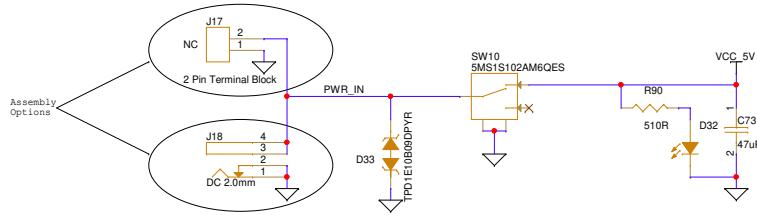
Title 09. Debug, Exp Connectors			
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10. SD-Card, Audio, Camera



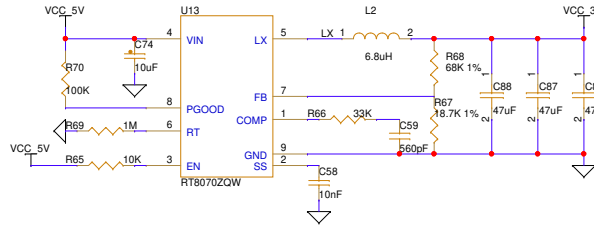
11. Power, Buttons, Mechanics

DC-IN - 5V



3.7V Digital 4A

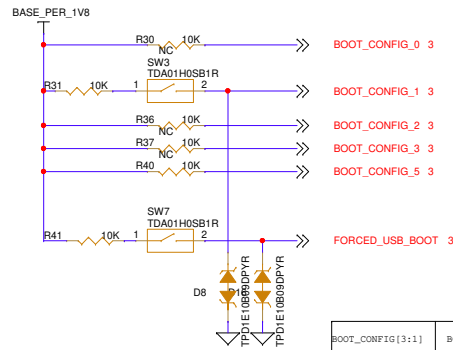
Note:
3 x 47uF caps required
for full load operation



SOM Power

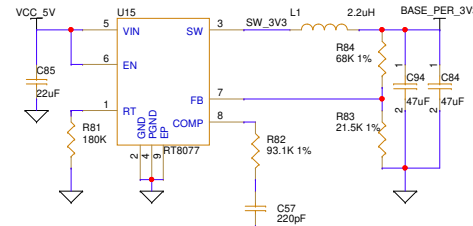


Sys-boot

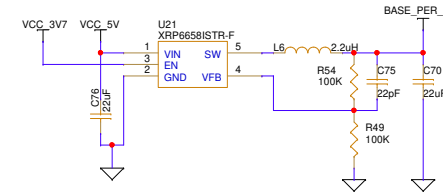


BOOT_CONFIG[3:1]	BOOT OPTIONS
0b000	SDC1 --> SDC2 --> USB2_0
0b001	SDC2 --> SDC1 --> USB2_0
0b010	SDC1 --> USB2_0
0b011	USB2_0

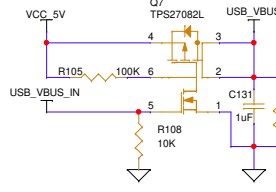
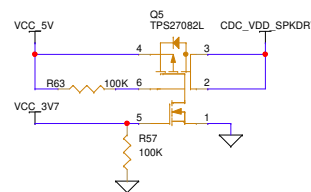
3.3V Base



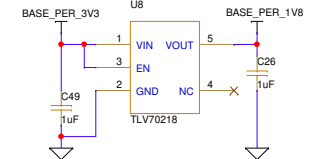
1.2V Base



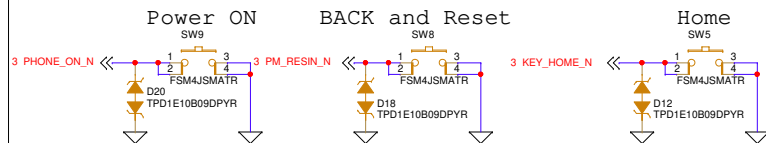
3.3V Base



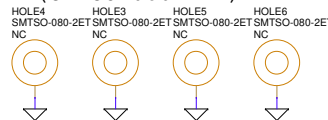
1.8V Base



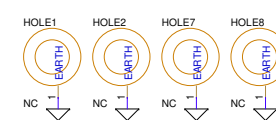
BUTTONS



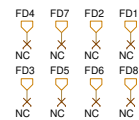
4X SOM STANDOFFS (SMTSO-080-2ET)



4X Chassis Holes



Fiducial



Title 11. Power, Buttons, Mechanics			
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