

01. Cover

VAR-AM43CustomBoard



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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	Carrier	
1.0	1.0	Initial
1.1	1.1	Production
1.2	1.1A	Changed U1 package Removed R2 D102.5 Disconnected R21 pulled down Updated notes section
1.3	1.1A	Updated notes pages 3,7,8

Title01. Cover

SizeA3

Document NumberVAR-AM43CustomBoard

ProjectVAR-AM43CustomBoard

Rev1.1A

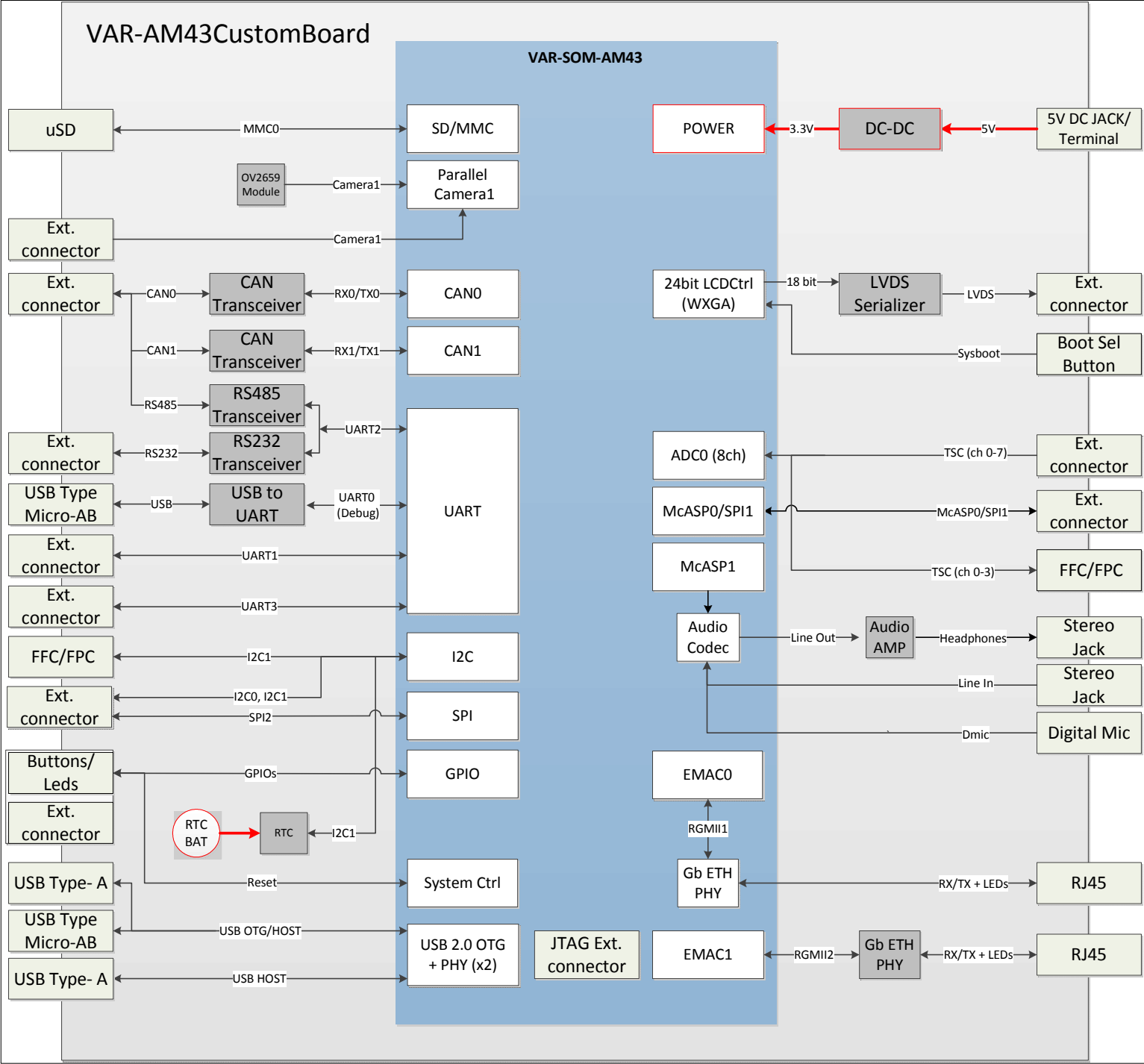
Designer: <Designer>

Approved By: <Approved By>

Date: Monday, October 23, 2017

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02. Block Diagram



Title 02. Block Diagram			
Size A3	Document Number VAR-AM43CustomBoard	Project VAR-AM43CustomBoard	Rev 1.1A
Designer: Date: Sunday, June 28, 2015	<Designer>	Approved By: Sheet 2 of 9	<Approved By>

Alert! :
Pull down resistors required on
LDO_ACT, LDO_12M_1000
for on SOM Ethernet PHY operation
Please refer to page 7.

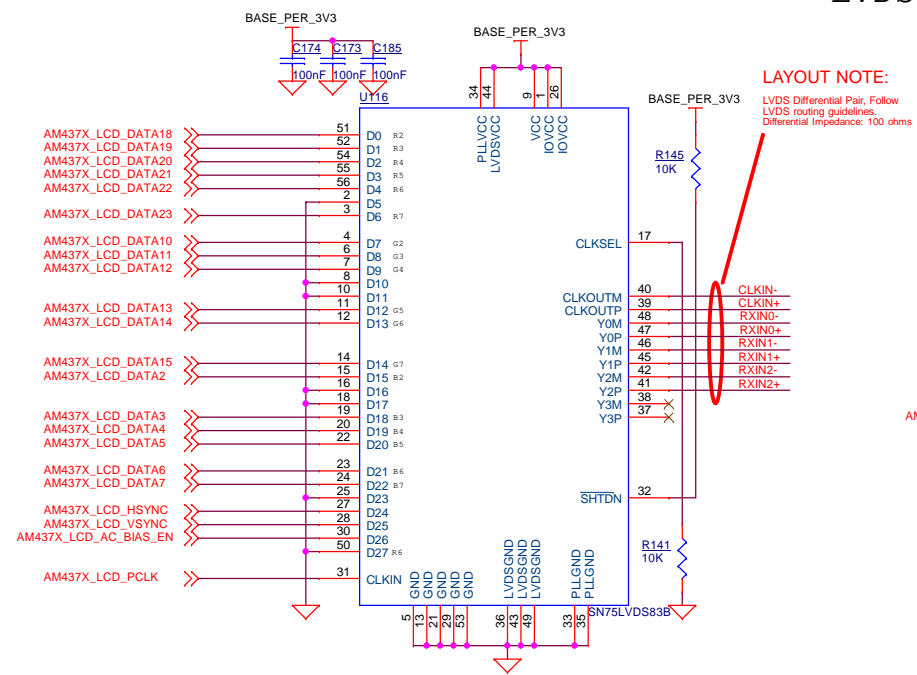


Notes:

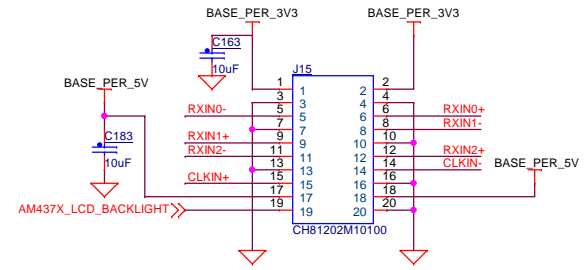
- [1] VDDSHV11- 1.8V rail
- [2] The following pins are referenced to 1.8V:
1, 3, 5, 7, 9, 11, 12, 14, 16, 18, 20, 22,
116, 131, 135, 137, 151, 150
- [3] The following pins are used by on SOM NAND.
can be used on SOM without NAND assembled.
109, 131, 138, 151, 154, 167,
169, 177, 181, 183, 189, 191, 193, 195
- [4] [3] The following pins are used by on SOM WiFi/BT module.
can be used on SOM without WiFi/BT module assembled.
1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 16, 18, 20, 22

04. Display, Touch, Camera

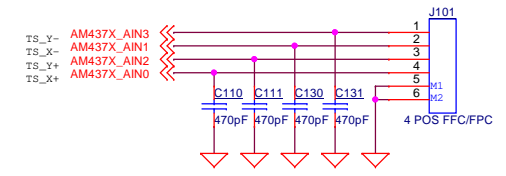
LVDS



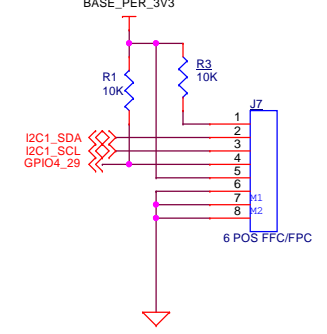
LVDS Connector



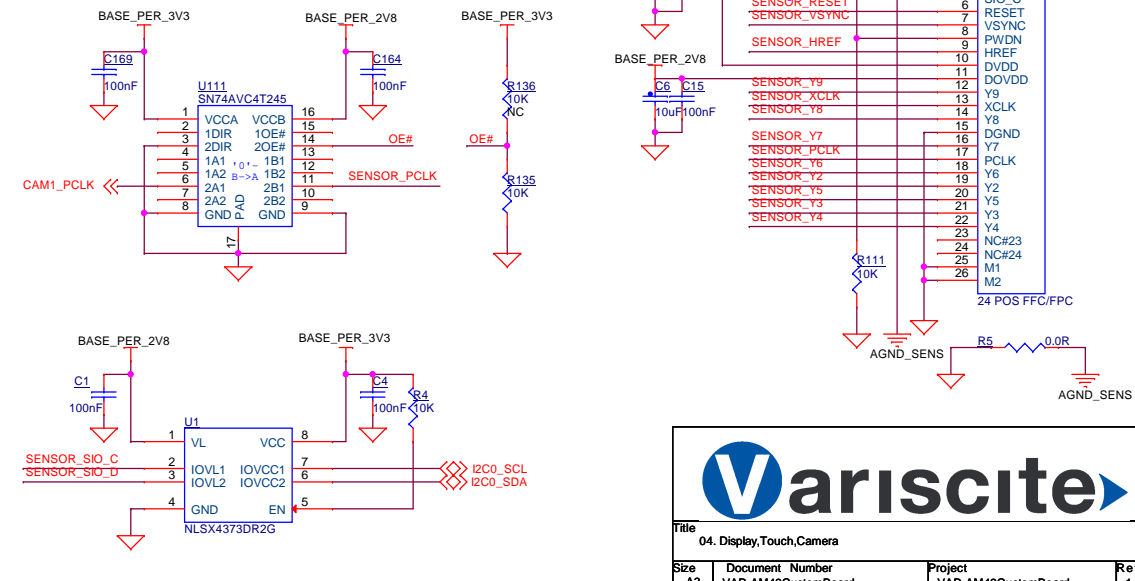
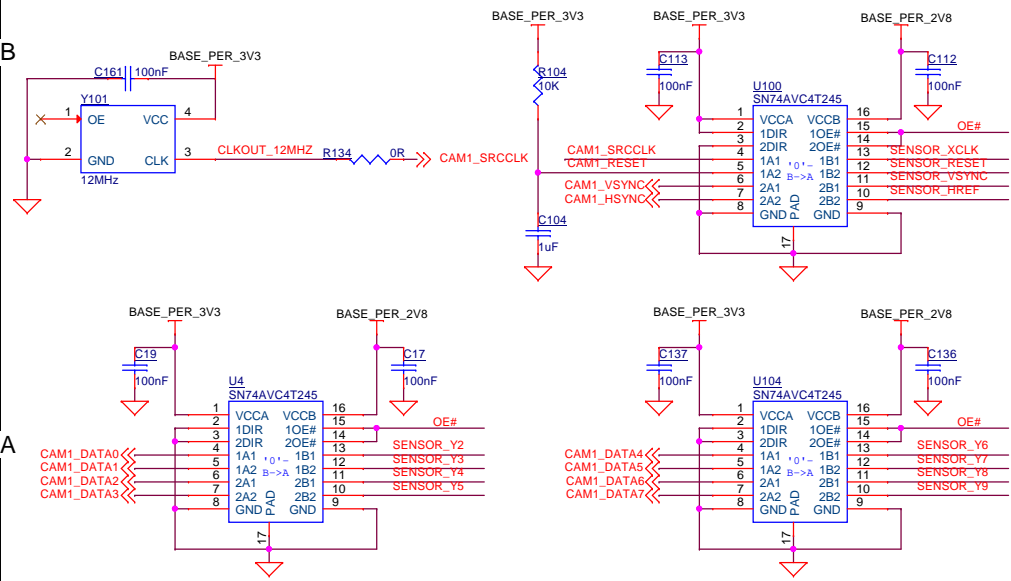
Touch
Resistive



Capacitive



Camera



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Title: 04. Display, Touch, Camera

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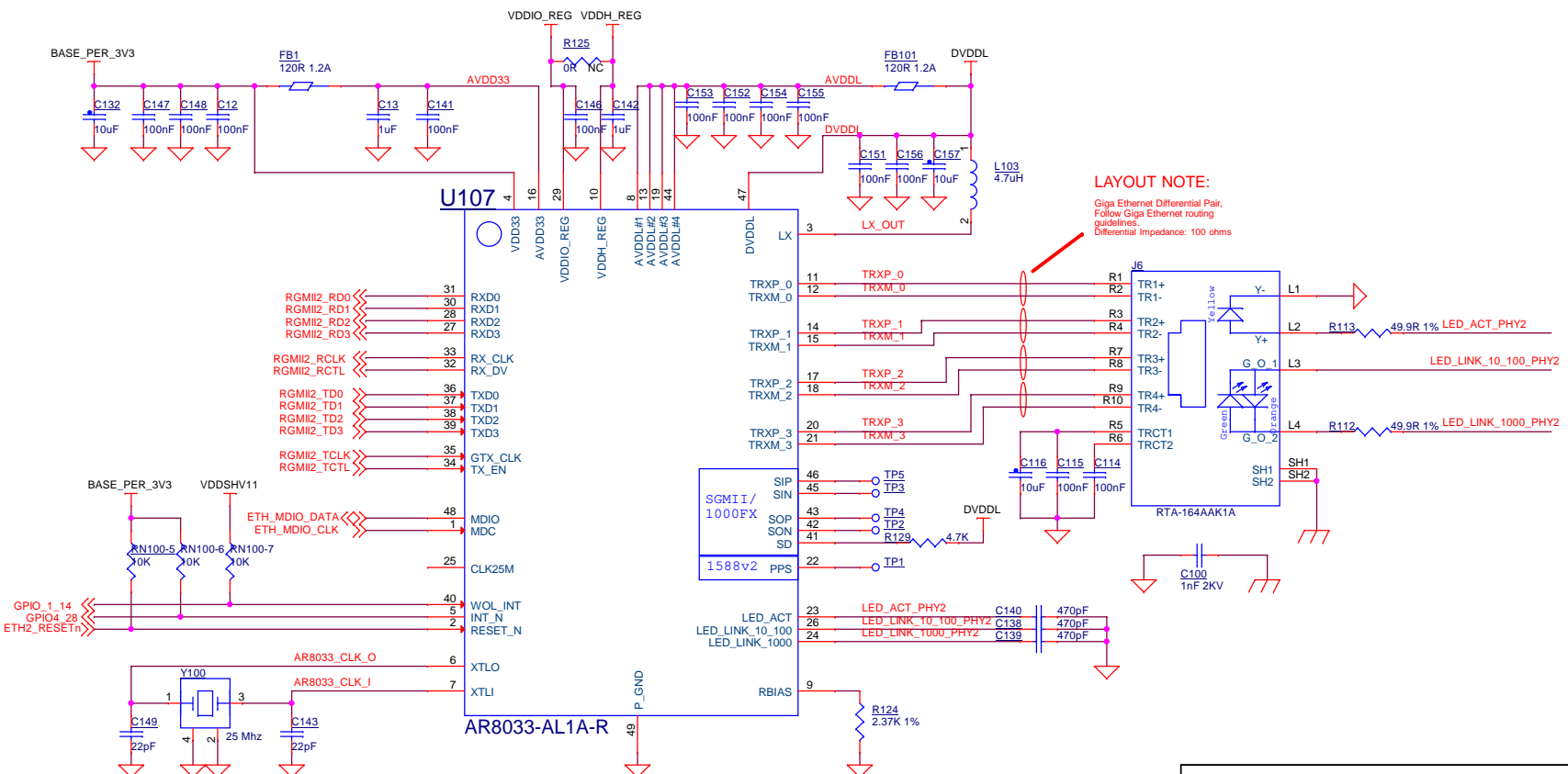
05. G. Ethernet

5 4 3 2 1

LEDs - active HIGH, address 00010b

MODE[3: 0] = 0000,
1000 BASE-T, RGMII

Ethernet PHY



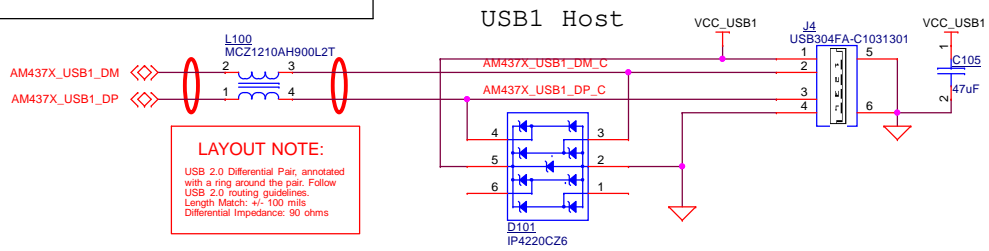
Title
05. G. Ethernet

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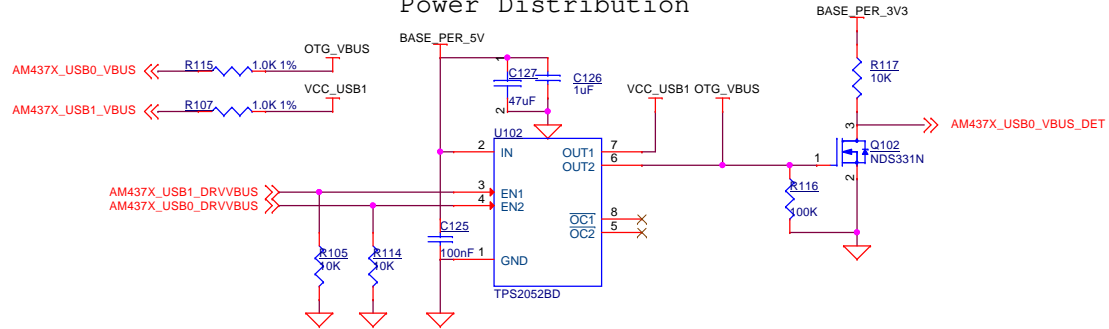
06. USB, Audio

USB

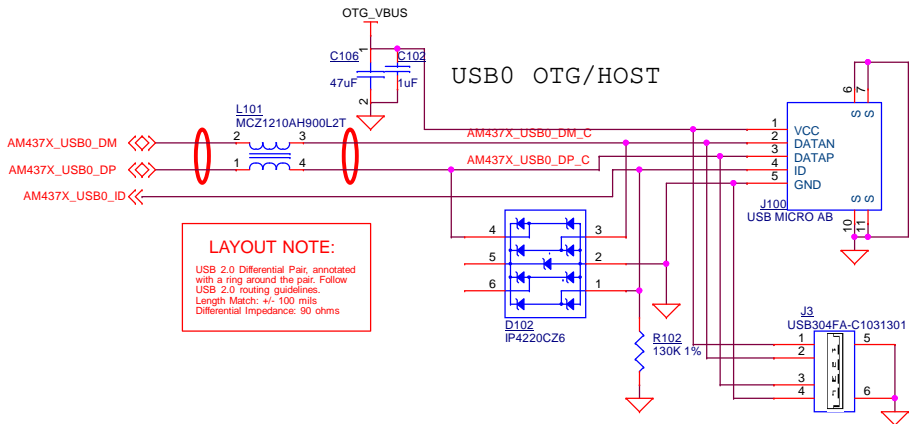
USB1 Host



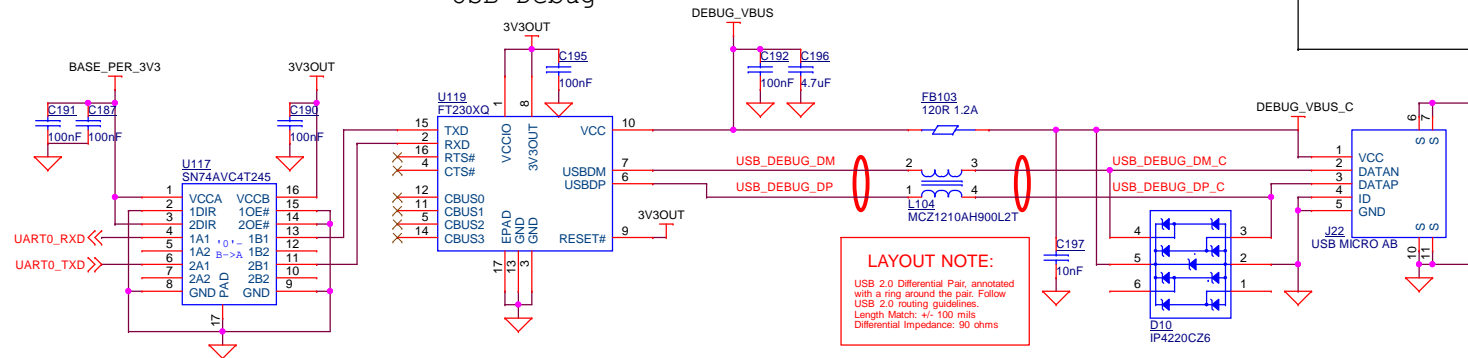
Power Distribution



USB0 OTG/HOST

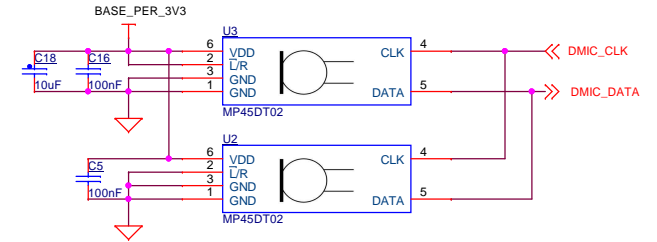


USB Debug

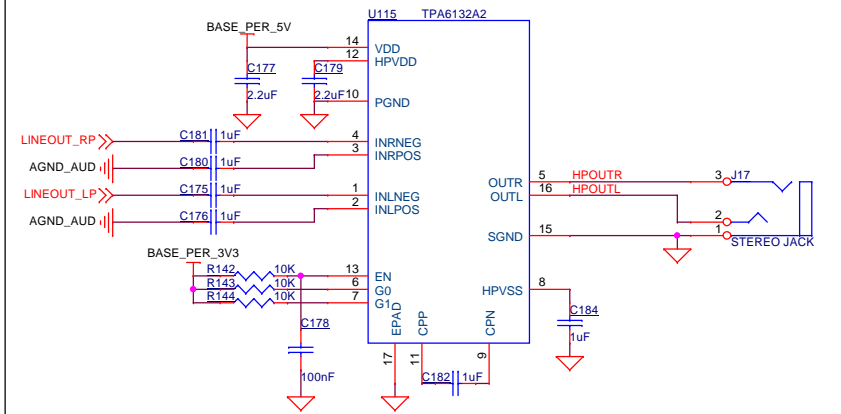


AUDIO

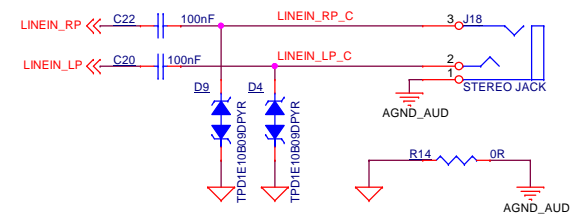
Digital Microphone



Headphones



Line In



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Title 06. USB, Audio			
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07. Peripherals

RS232/RS485

RS-232 TRX

RS232 Header

RS-485 TRX

CAN0

CAN1

RJ45

uSD CARD

USER BUTTONS

GP LED

Alert! :

Pull down resistors required on LED_ACT, LED_LINK_1000 for on SOC Ethernet PHY operation

LAYOUT NOTE:

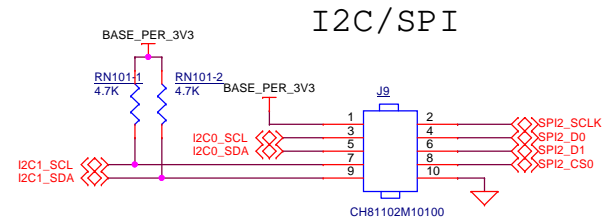
Giga Ethernet Differential Pair. Follow Giga Ethernet routing guidelines. Differential Impedance: 100 ohms

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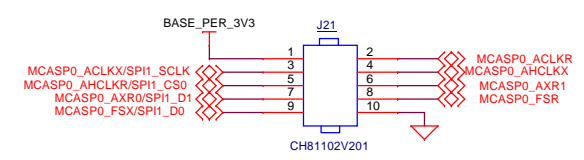
07. Peripherals

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08. DVK Exp Connectors

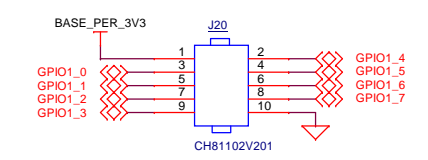


Digital Audio/SPI



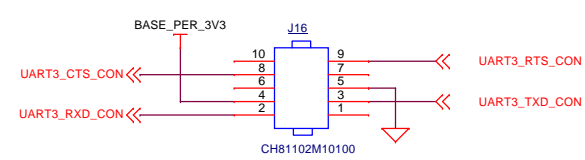
Note:
(*) McASP interface is shared with on SOM WiFi/BT module and cannot be used simultaneously

GPIO

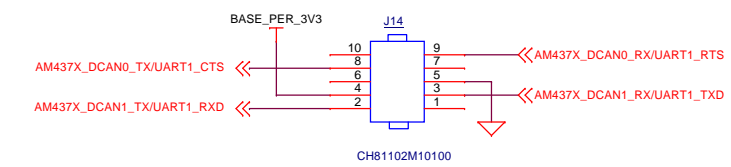


Note:
(*) Pins 2-9 are used by on SOM NAND. Pins can be used on SOM without NAND assembled.

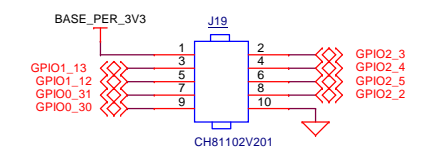
UART3



UART1

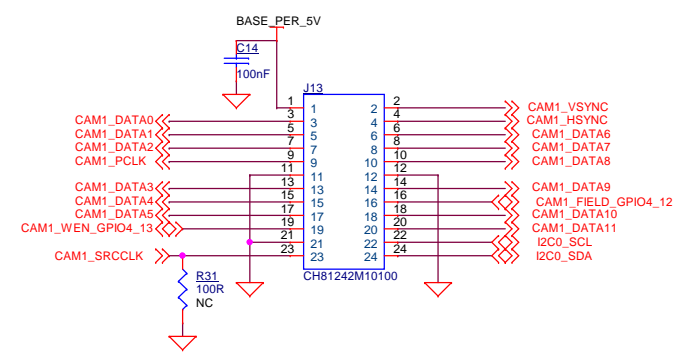


GPIO

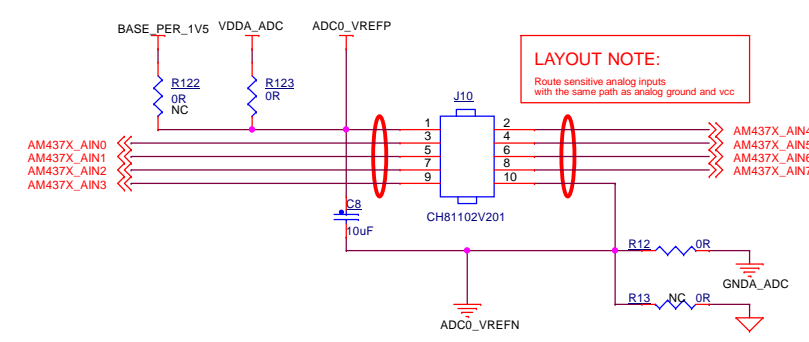


Note:
(*) Pins 2,4,6,7,8,9 are used by on SOM NAND. Pins can be used on SOM without NAND assembled.
(**) Pins 3,5,7,9 are Referenced to 1.8V rail

CAMERA Header

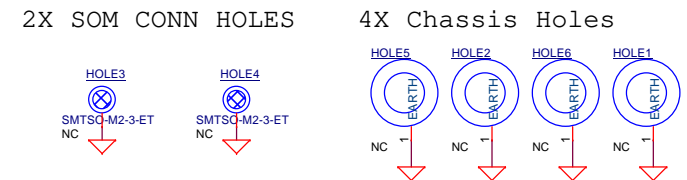
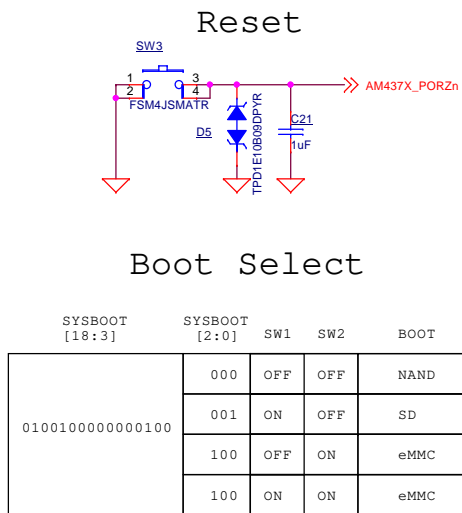
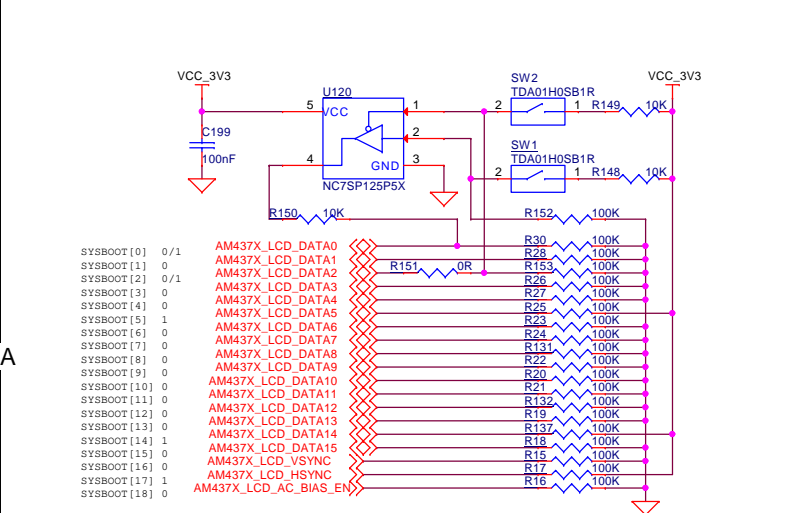
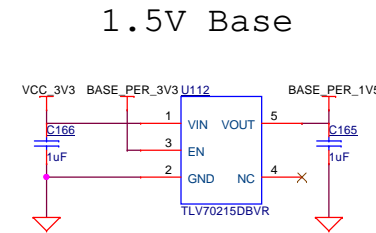
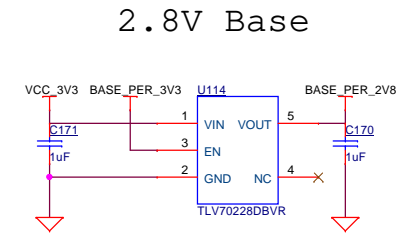
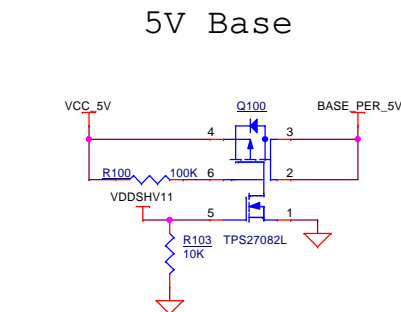
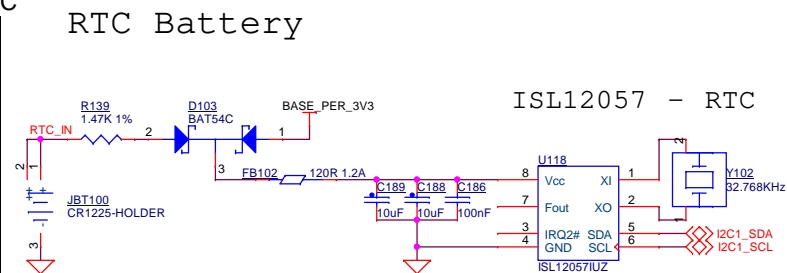
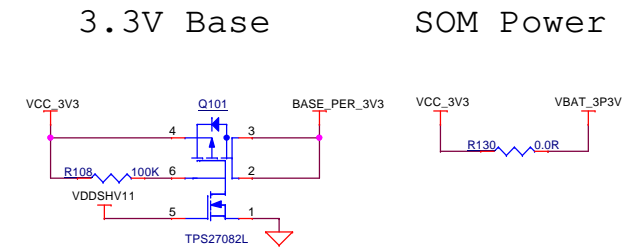
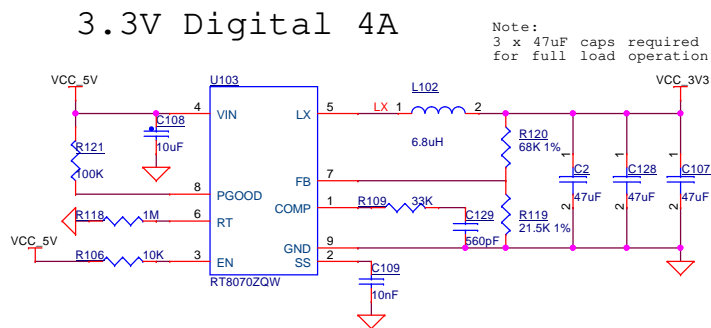
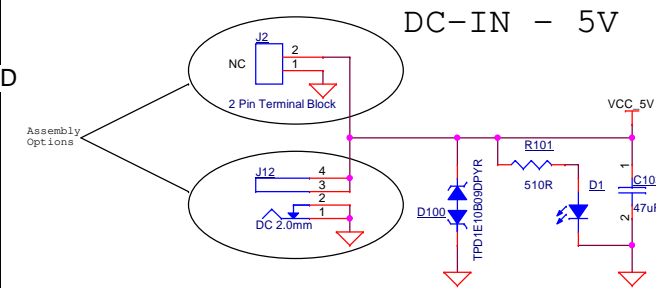


A/D

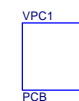


Note:
(*) ADC0_VREFP can be supplied by SOM's VDDA_ADC Rail or by on board 1.5V LDO

09. Power, Mechanics



Fiducial



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09. Power, Mechanics

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