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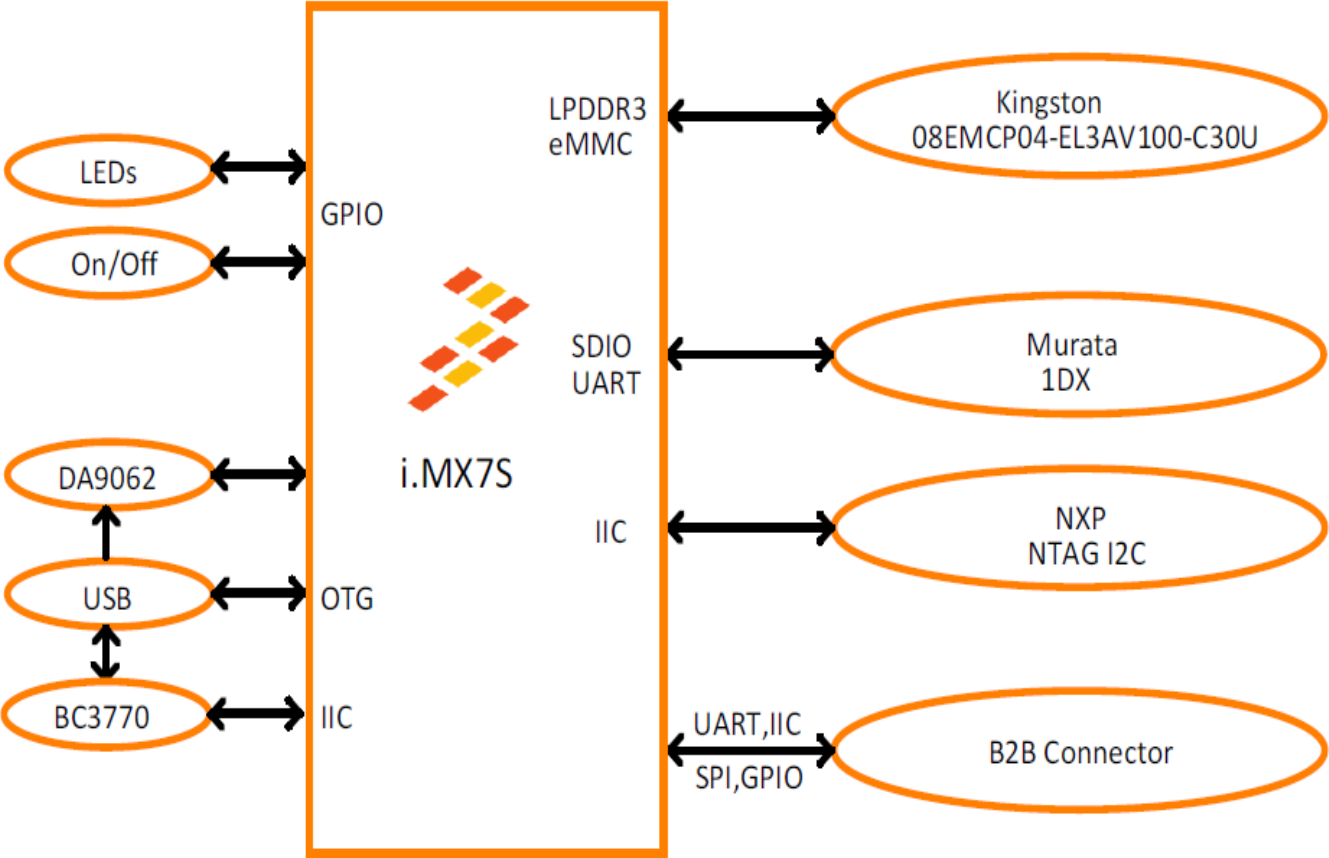
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WaRP7-CPU Board

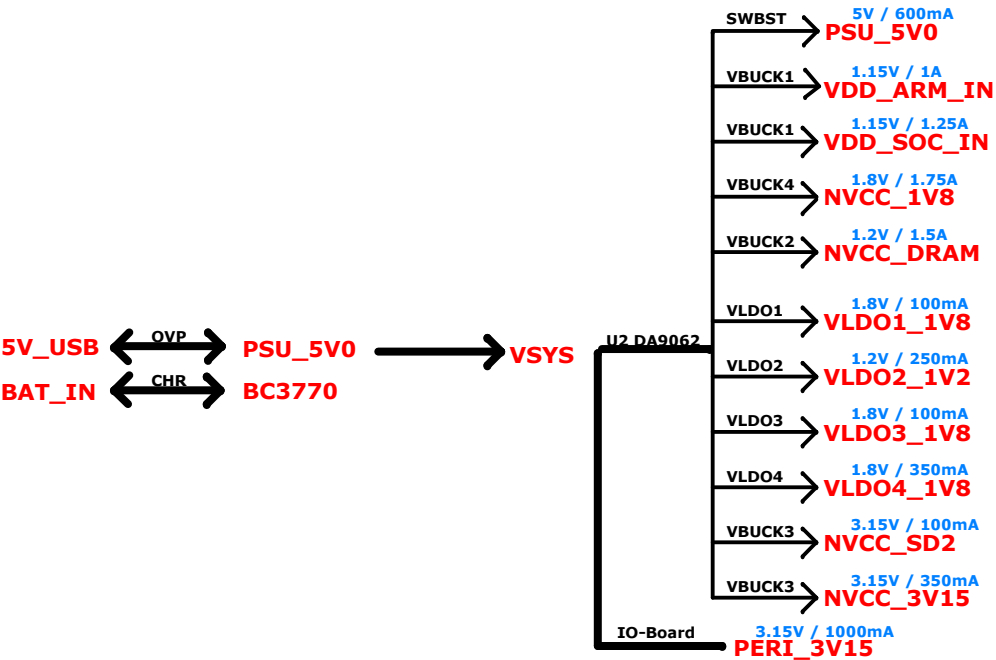
Revision History

Rev. Code	Date	Description
Rev A	07/04/2015	1.Initial Draft
Rev B	02/23/2016	1.Changed the revision from revA to revB
		2.Swapped the connection UART3_CTS_B and UART3_RTS_B of WIFI & BT Module (page 9).
		3.Used pin D16 of i.MX7s as MikroE BUS power controll circuit.(page 6)
		4.Used pin AB7 of i.MX7s as MikroE BUS ADC_in.(page 7)
Rev B	03/04/2016	1.Removed the CSI_PWDN_B from V4(GPIO1_I000) to Y6(GPIO1_I003).(page 7)
		2.Used V4(GPIO1_I000) as WDOG_RST_B,added R48(1kohm) to prevent large current impact.(page 7)
		3.Added the test point(TP13) on Y5(GPIO1_I004).(page 7)
Rev B	03/07/2016	1.Changed the title logo from "FSL" to "NXP".
Rev C	11/02/2017	1.PMIC (U2) device updated to Dialog DA9062 and its passives
		2.Block diagram updated with PMIC part number
		3.Changed the title logo from "NXP" to "Dialog Semi"
		4.Changed the revision from revB to revC
Rev C	11/16/2017	1.NVCC_DRAM & DDR_VREF connected to GPIO0 & 1 of DA9062
		2.Added test points for GPIO2 (TP2) and GPIO3(TP14) of DA9062
		3.PMIC_STBY_REQ connected to GPIO4 of DA9062 using 0R(No Load) GPIO can be configured as SYS_EN
		4.Pin U3.E2 (SD2_DATA1) made as NC
		5.nONKEY - R50 made as no load and added R20(0R_NL) to "PMIC_ON_REQ"
		6.R21 connected to U3.Y2 (BOOT_MODE1) and pulled up to VLDO3_1V8
		7.J2 pin 33 & 35 connected to PSU_5V0
		8.R22 and R25 newly added to power up the DA9062 device from USB by default
Rev C	11/20/2017	1.SP1 and SP2 made as load
		2.TP15 added to pin U3.AC4
		3.Ref des swapped for R21 and R49
Rev C	11/22/2017	1.R49 made as No load
		2.Footprint updated to 0603 from 0805 for 47uF caps on VBUCK1,2,3,4 outputs
		3.Footprint updated to 0201 from 0402 for C17 & R18 on PMIC section
Rev C	12/01/2017	1.Block diagram updated on PG2
		2.Dialog board number '232-22-A' added
		3.Notes updated on PG6 and PG7 'PF3000' replaced with 'DA9062'
Rev C	01/10/2018	1.GPIO0(VTTQ) and GPIO1(VTTR) pins of DA9062(U2) connected to test points
		2.For VREFCA and VREFDQ of U4C added potential divider circuit

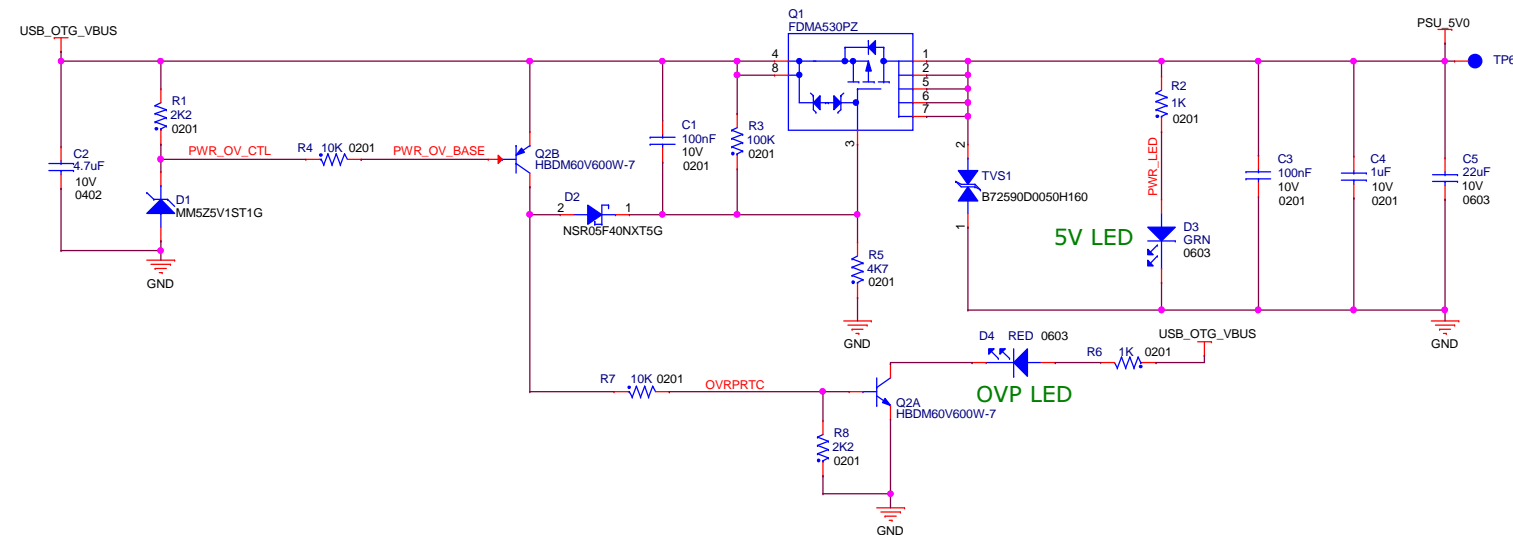
Warp7 CPU Board Block Diagram



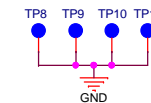
Power Distribution Diagram



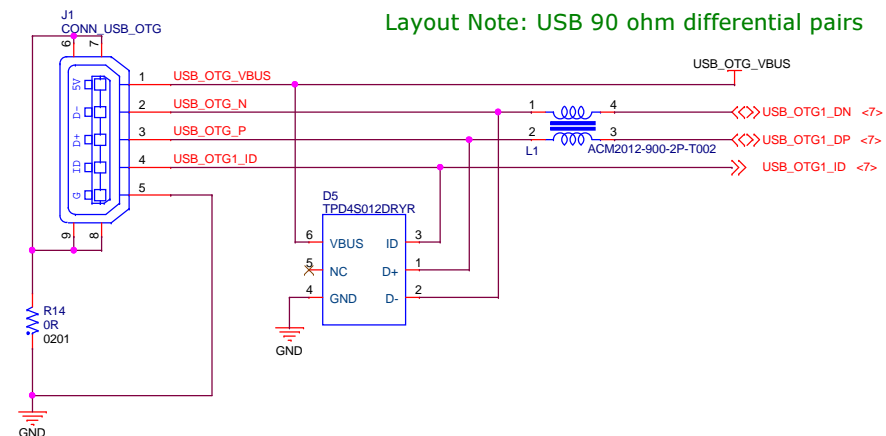
OVER VOLTAGE INDICATOR



Note: The Drain and Source of MOSFET could exchange with each other.
Provide power for the system when the USB OTG port acting as an OTG B-device.
Or output 5V from BC3770 when the port is acting as an OTG A-device.

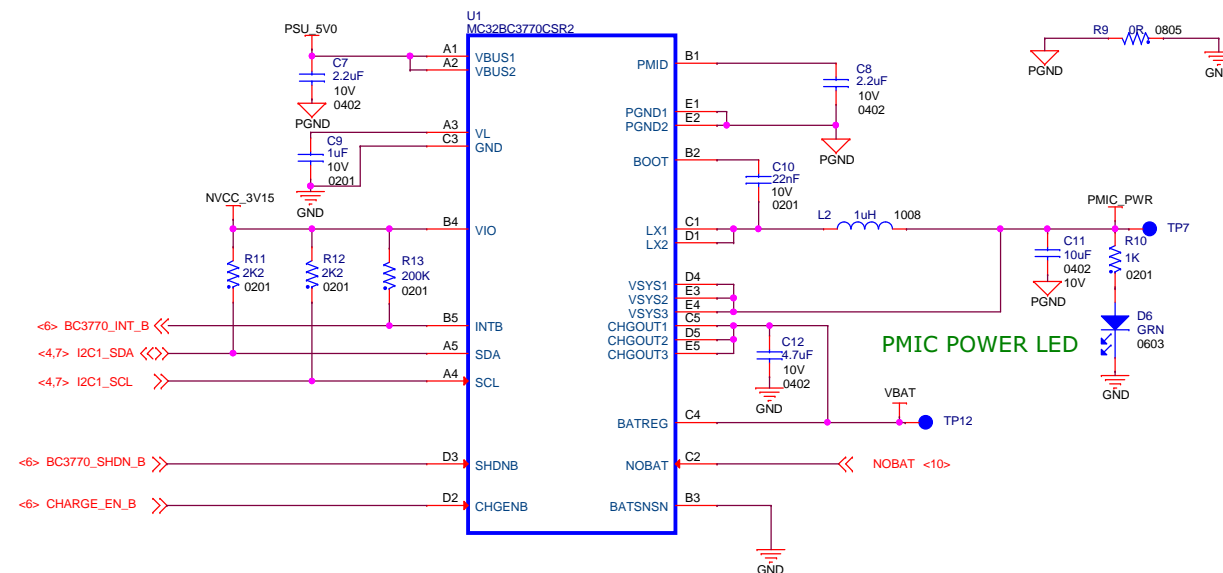


USB OTG

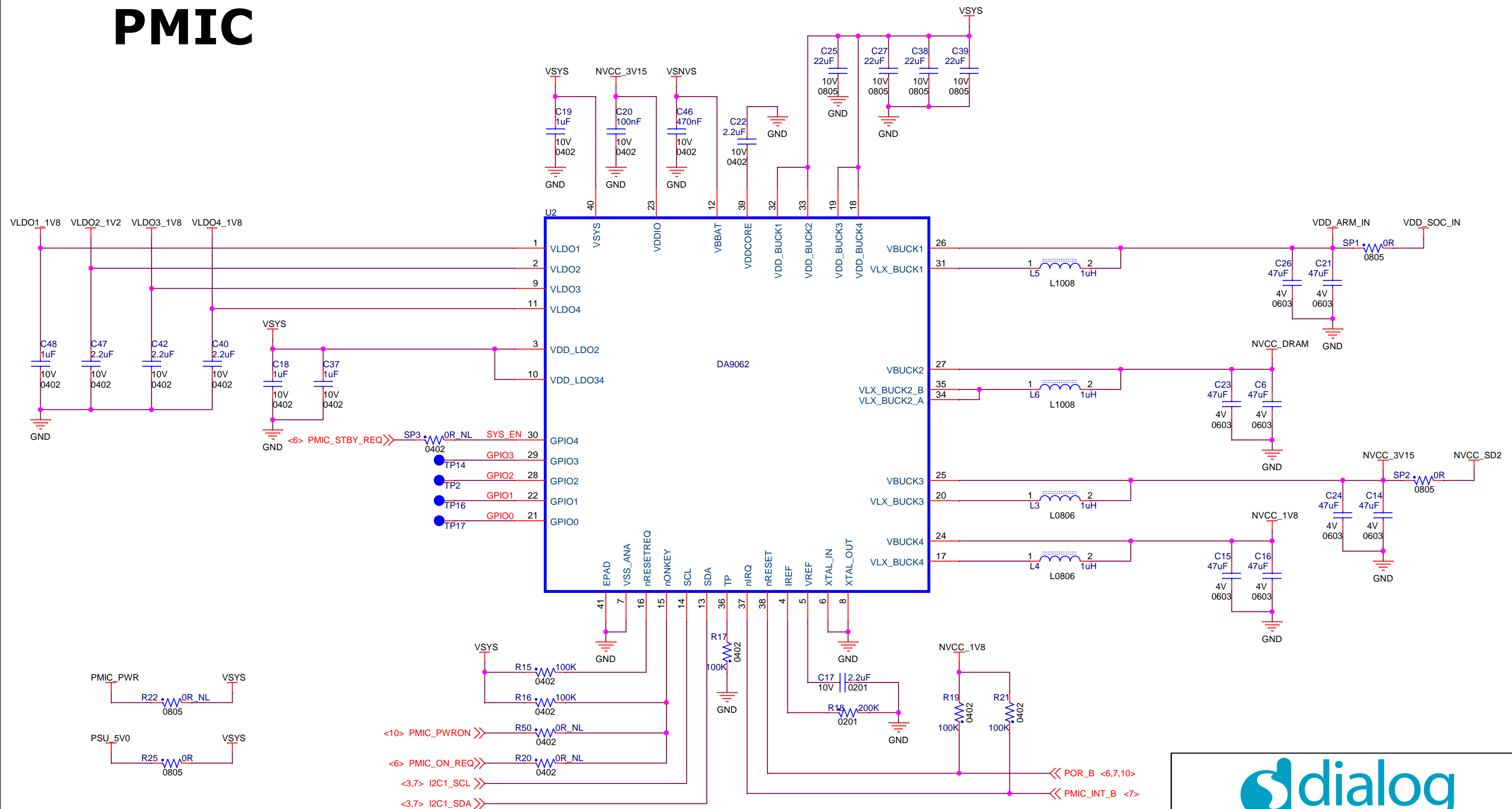


BATTERY CHARGE

Note: Use the pin VBUS of BC3770 as 5V output in the OTG mode, the current limit is up to 900mA, and it will make interrupt signal to processor when the external system is overload.



PMIC



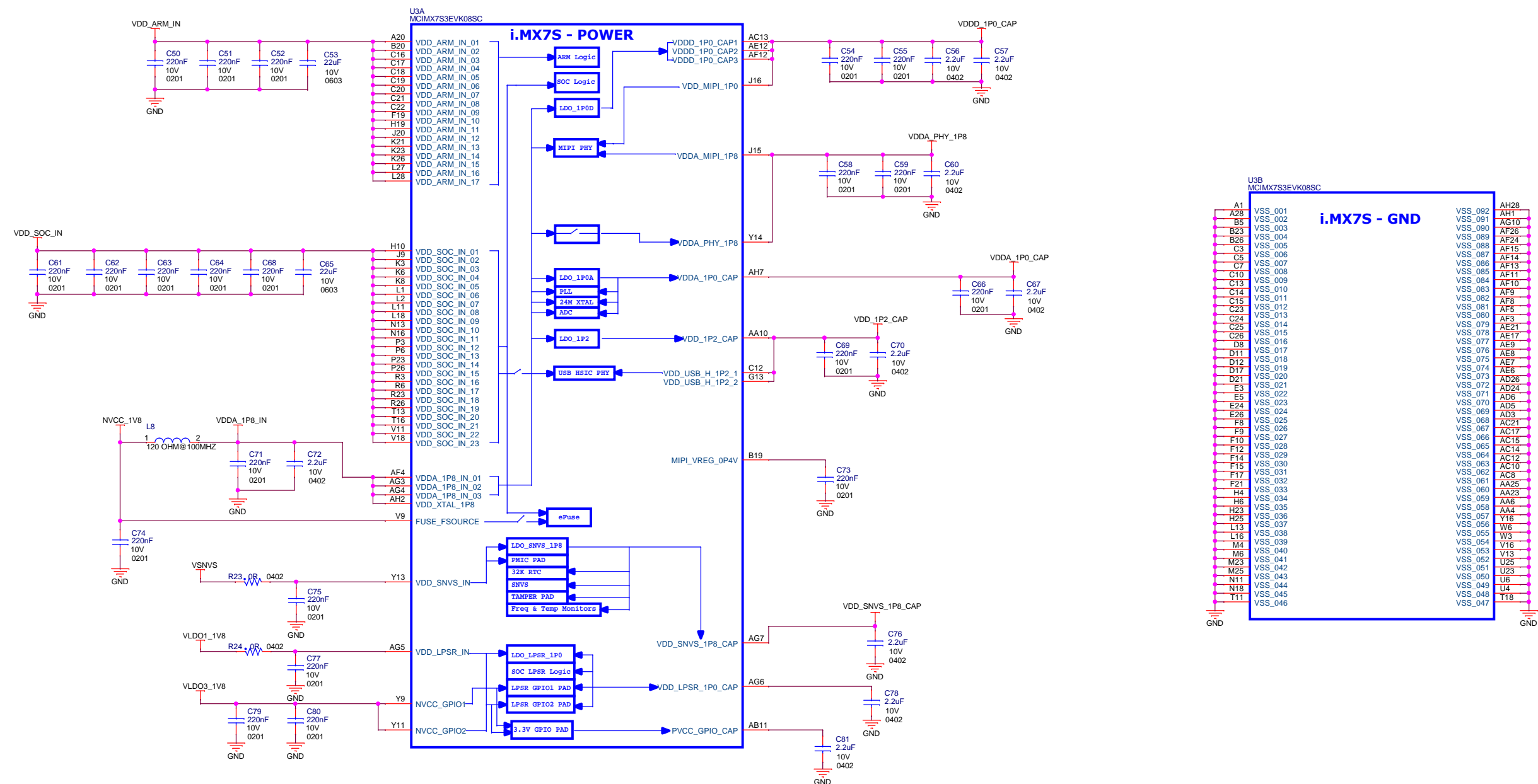
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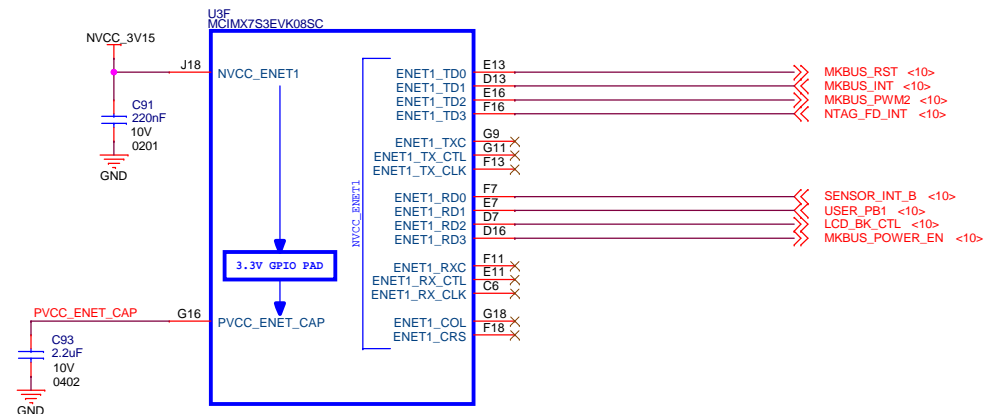
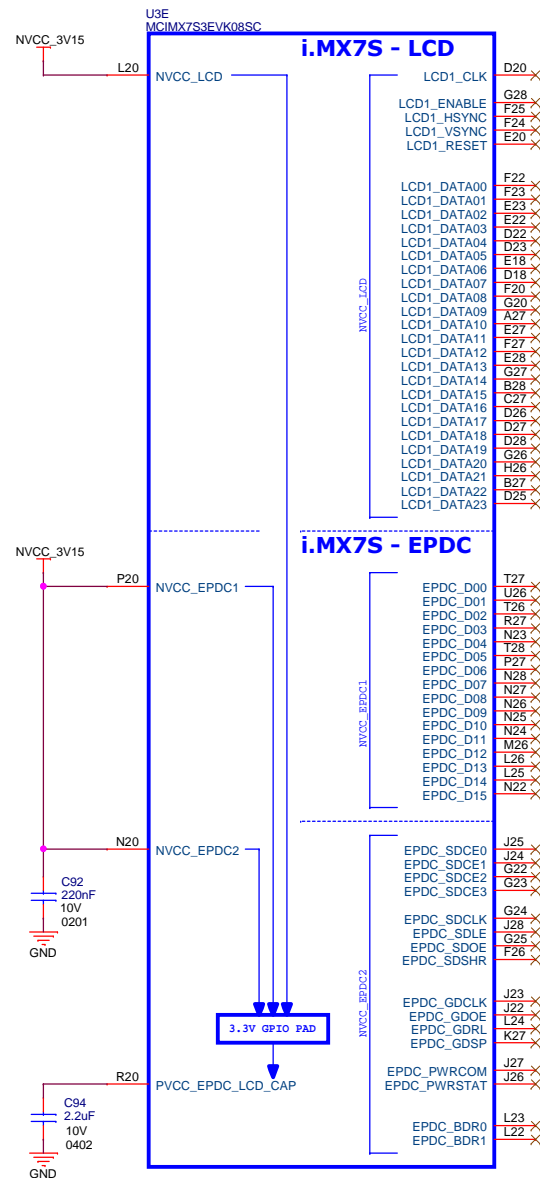
Drawing Title: WaRP7-CPU Board			
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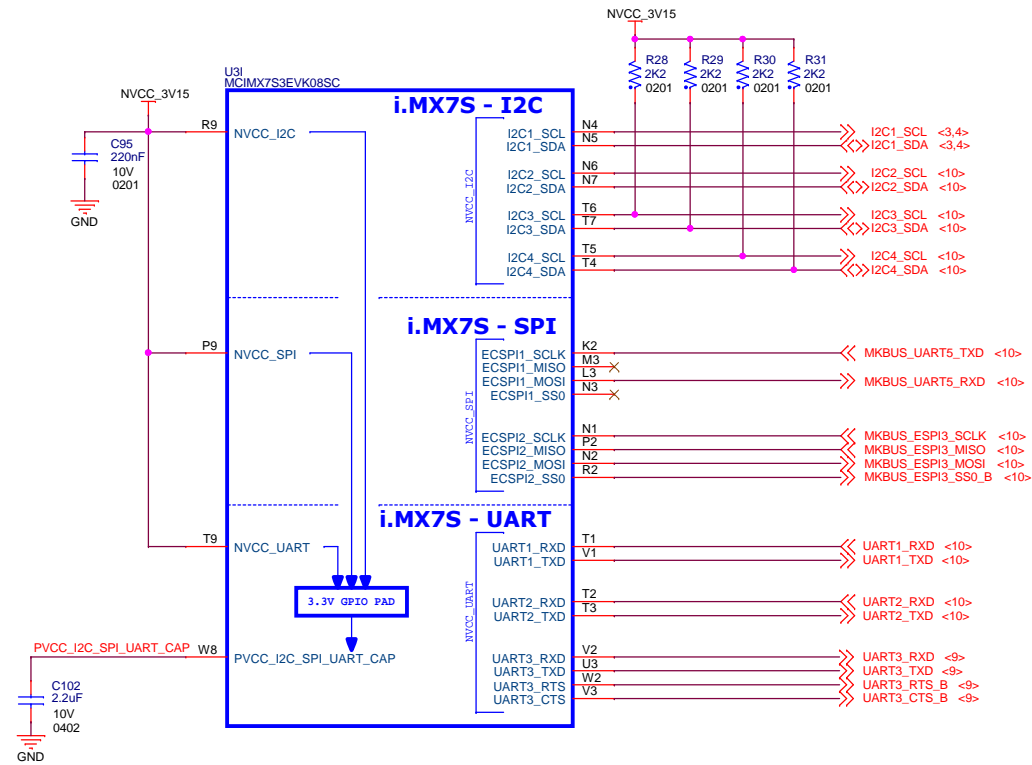
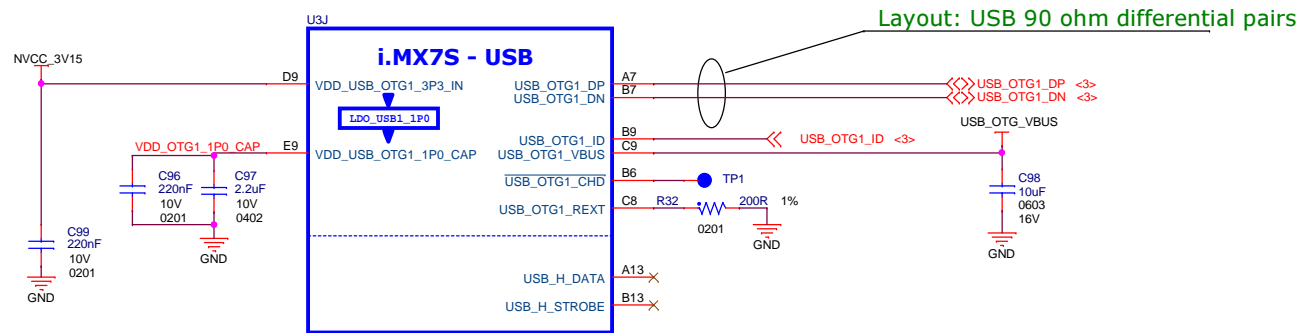
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CPU_POWER







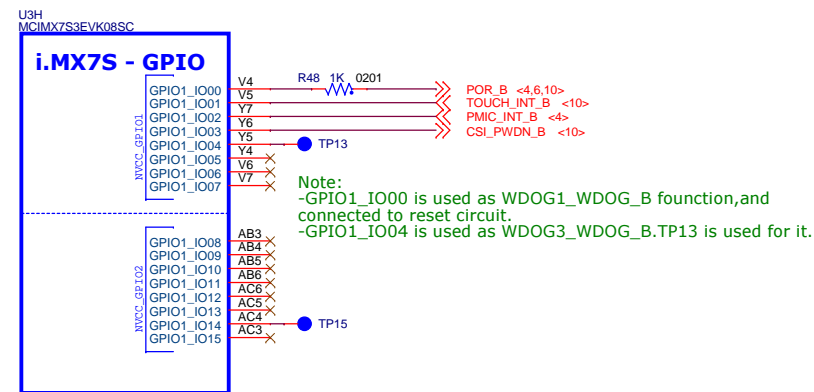
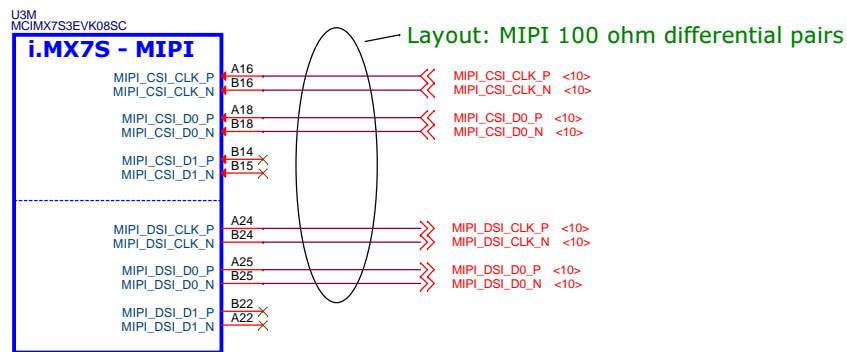
DA9062/BC3770
NTAG/CSI/TOUCH
MikroBus/Audio
Sensor

MikroBus

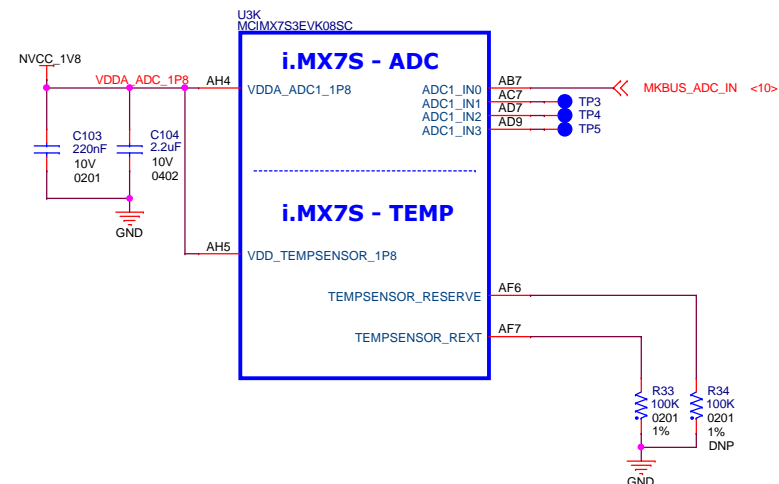
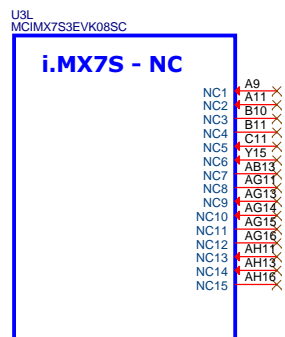
Cortex-A7

Cortex-M4

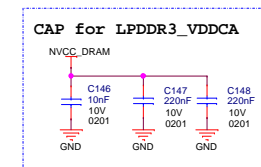
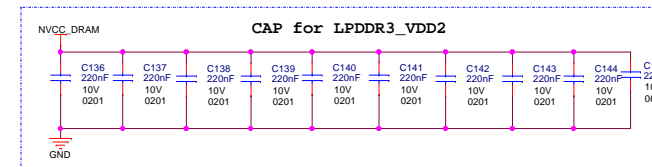
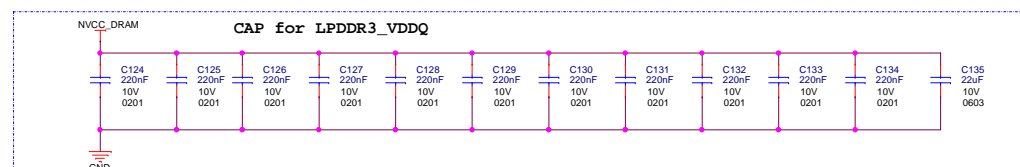
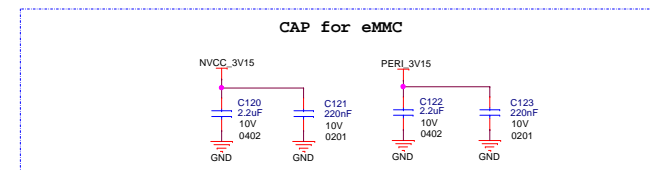
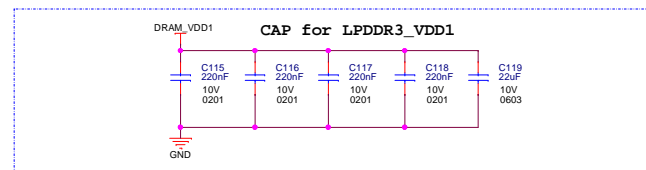
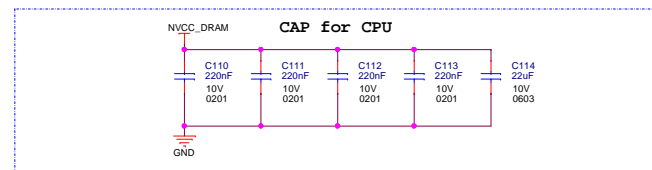
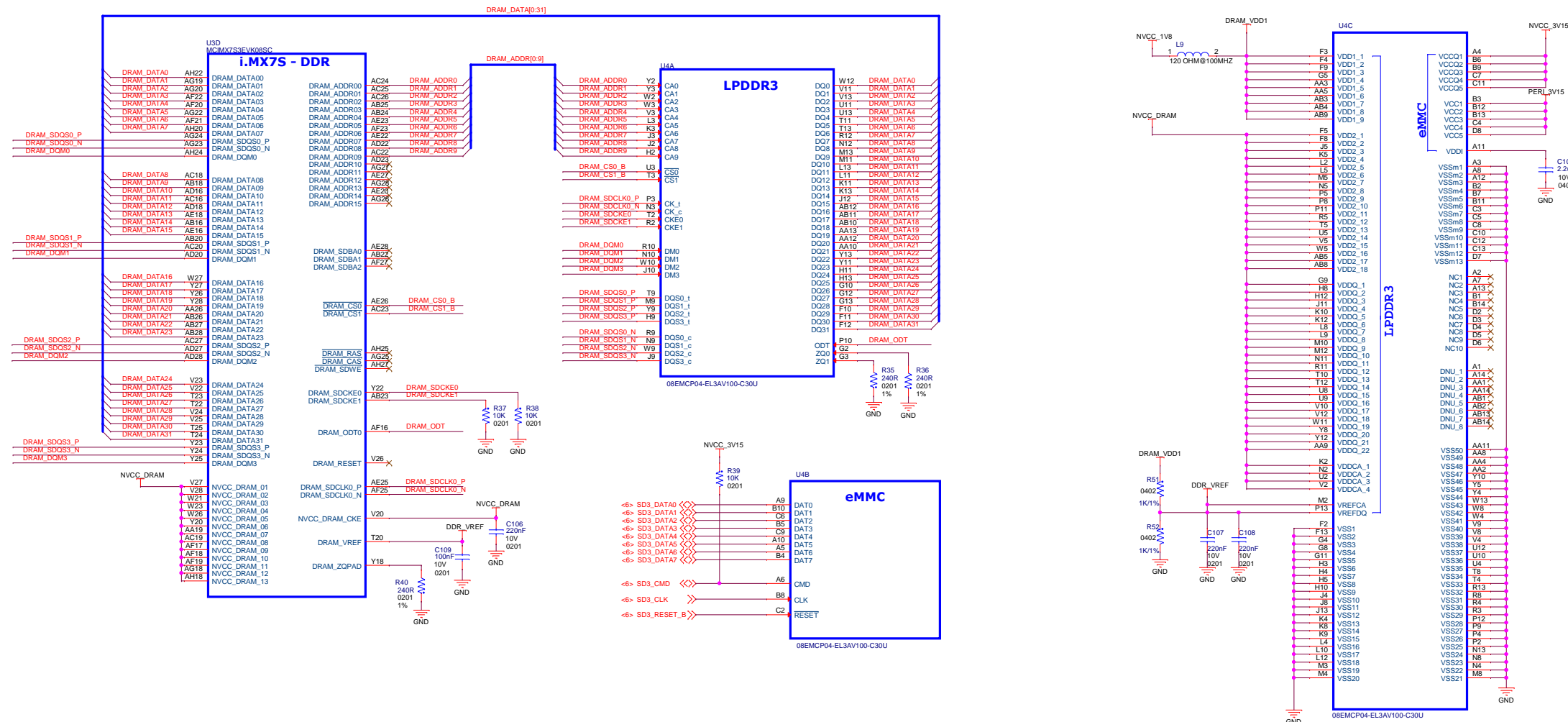
WIFI/BT



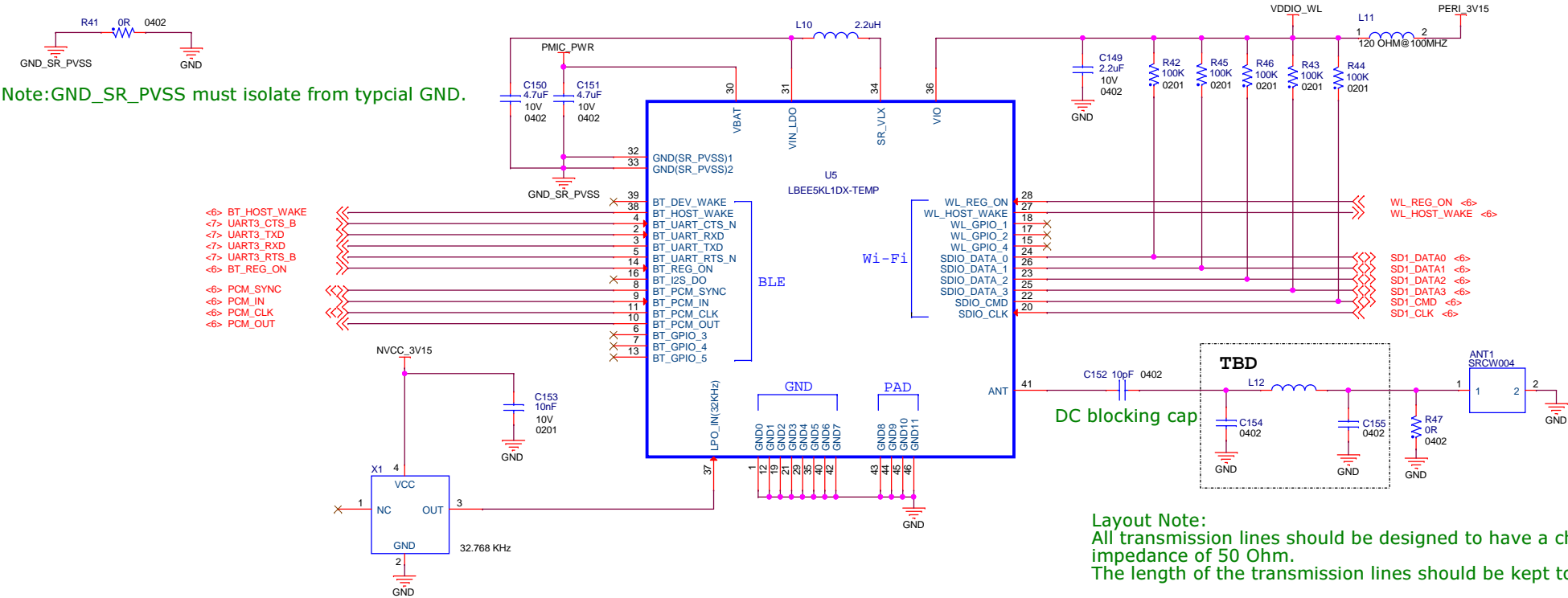
Note:
-GPIO1_IO00 is used as WDOG1_WDOG_B function, and
connected to reset circuit.
-GPIO1_IO04 is used as WDOG3_WDOG_B. TP13 is used for it.



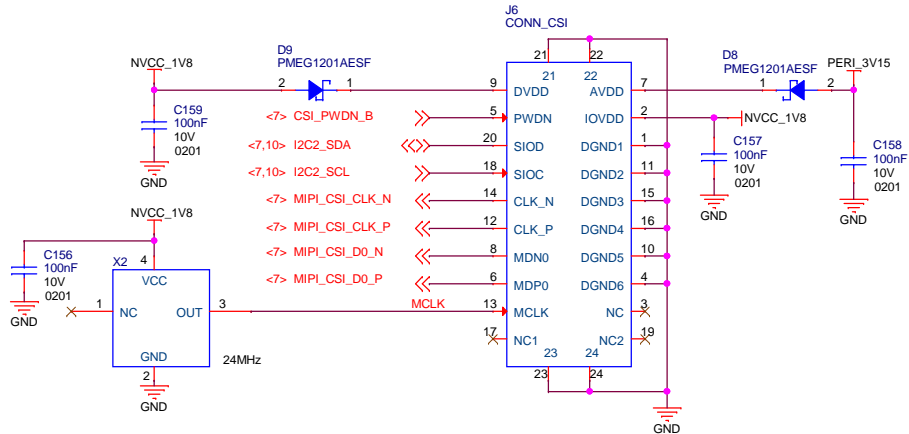
LPDDR2 & eMMC



Wi-Fi & BlueTooth



CSI



Note:The camera module's IIC address is 0x6C(write),0x6D(read).

B2B Connector

Note:All clock signals are isolated to other signals with GND.

