# MCIMX6ULL-CM

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1. Unless Otherwise Specified:

All resistors are in ohms, 10%, 1/8 Watt,0603 All capacitors are in uF, 20%, 50V,0603 All voltages are DC All polarized capacitors are aluminum electrolytic

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

### Schematics DevBoard

#### Revision History

Date	Ву	Description
2016-07-22	Yizhou	Compare to i.MX 6UL EVK C3  1 Change U101 CPU part number to MCIMX6Y2DVM05AA  2 Change DDR part number to MT41K256M16TW-107:P  3 Change QSPI flash part number to MT25QL256ABA1EW9  4 Remove EVMSIM
25-May-2018	Marek B.	U101 updated to MCIMX6Y2DVM09AB
	2016-07-22	2016-07-22 Yizhou

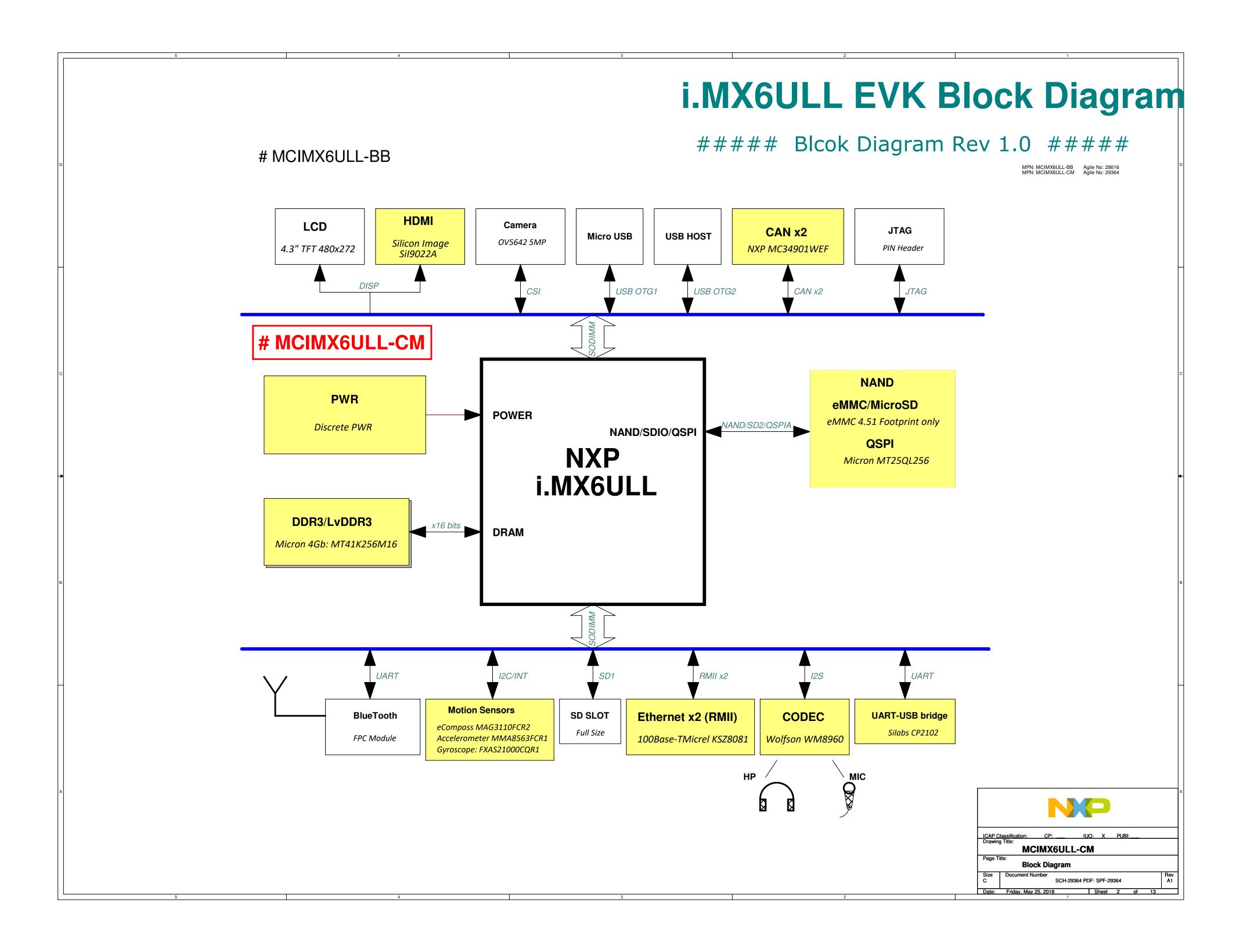
3. Device type number is for reference only. The number varies with the manufacturer.

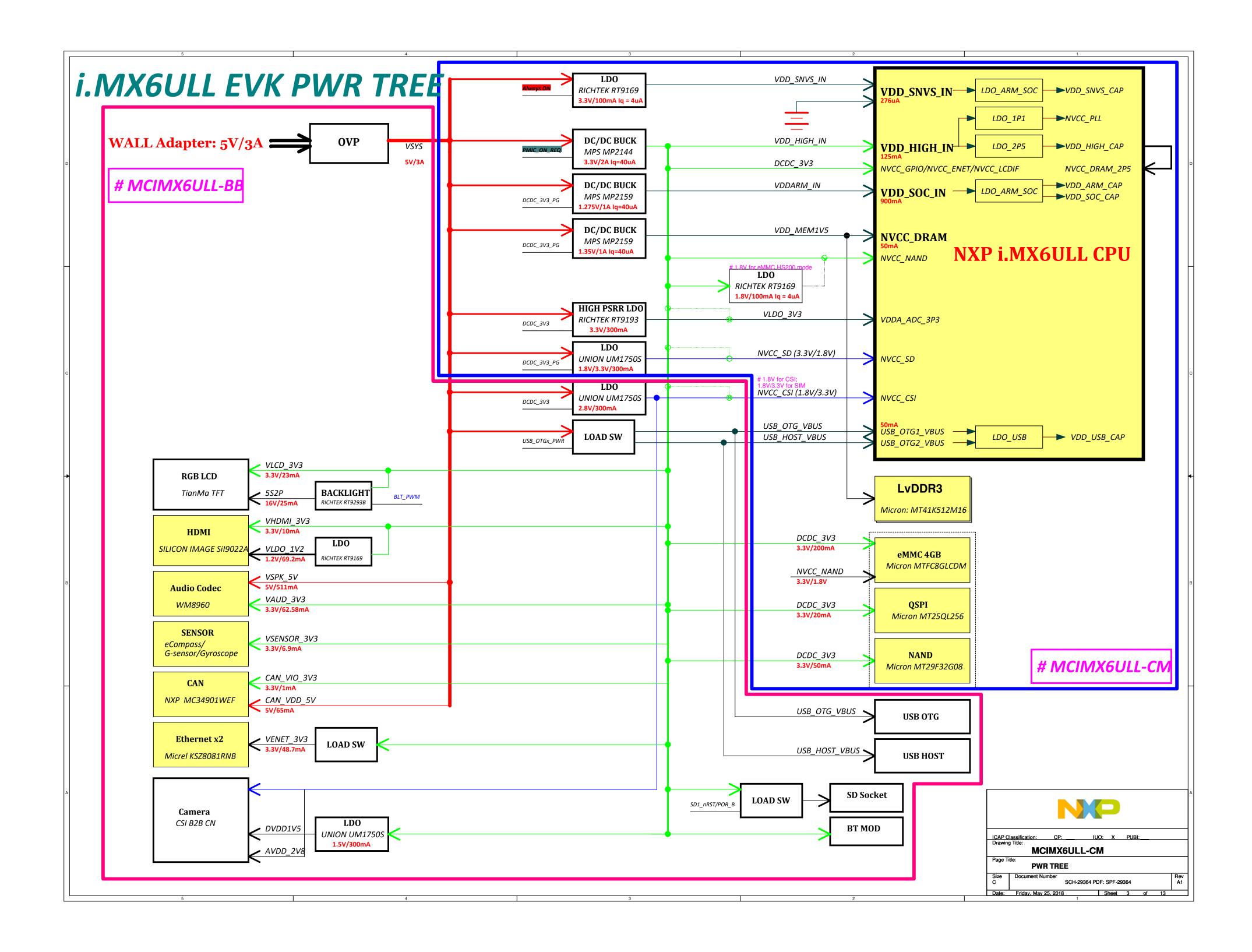
4. Special signal usage:

\_B Denotes - Active-Low Signal <> or [] Denotes - Vectored Signals

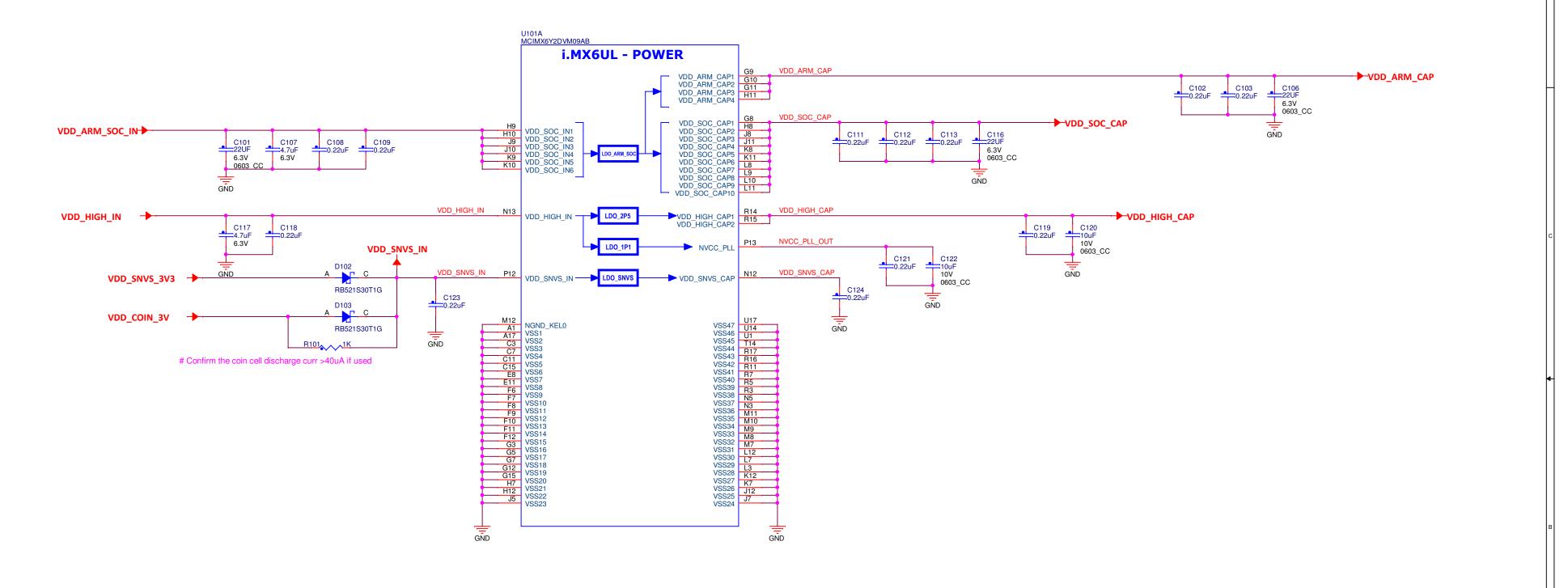
5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

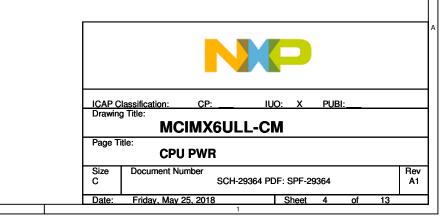
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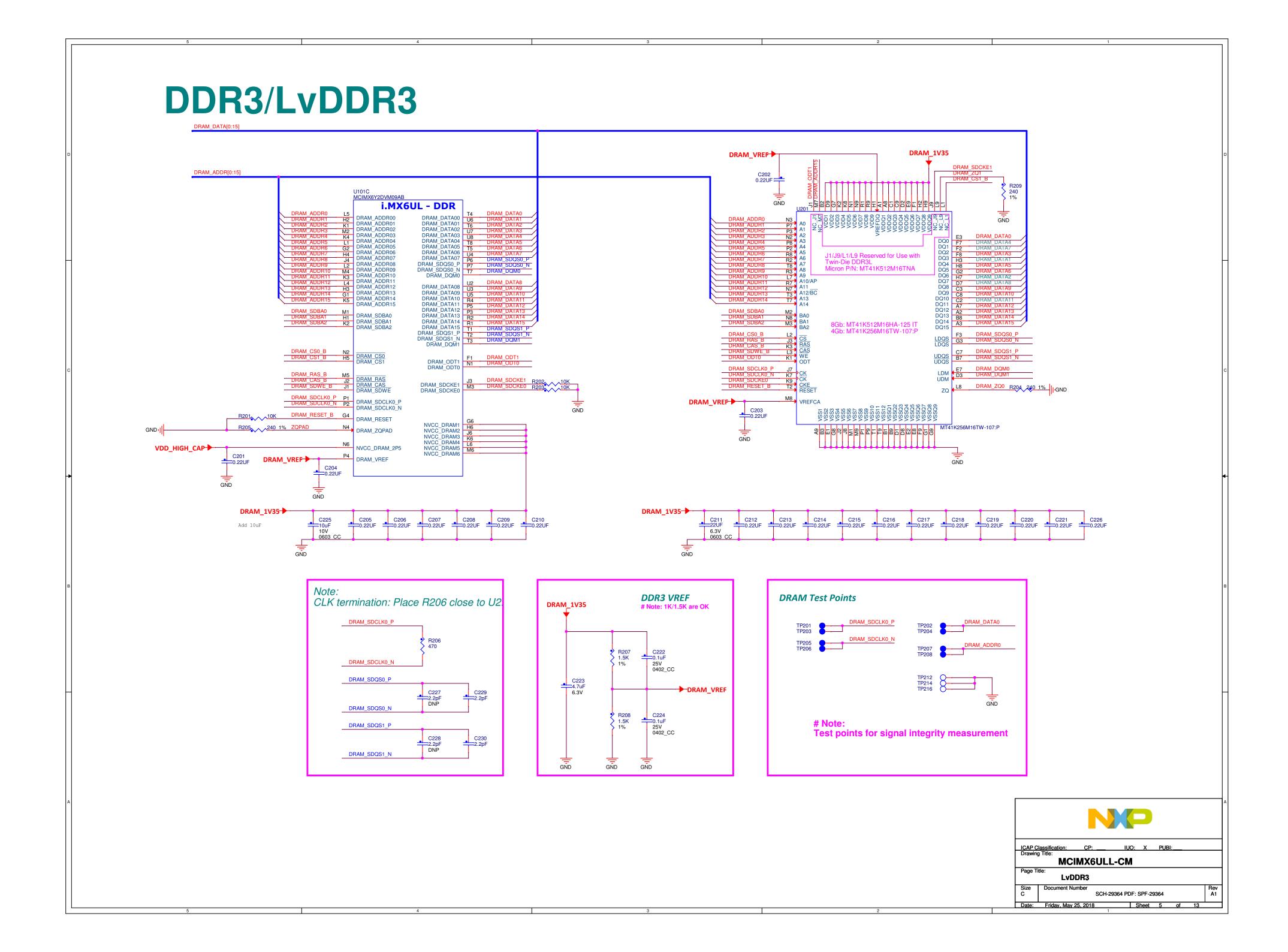


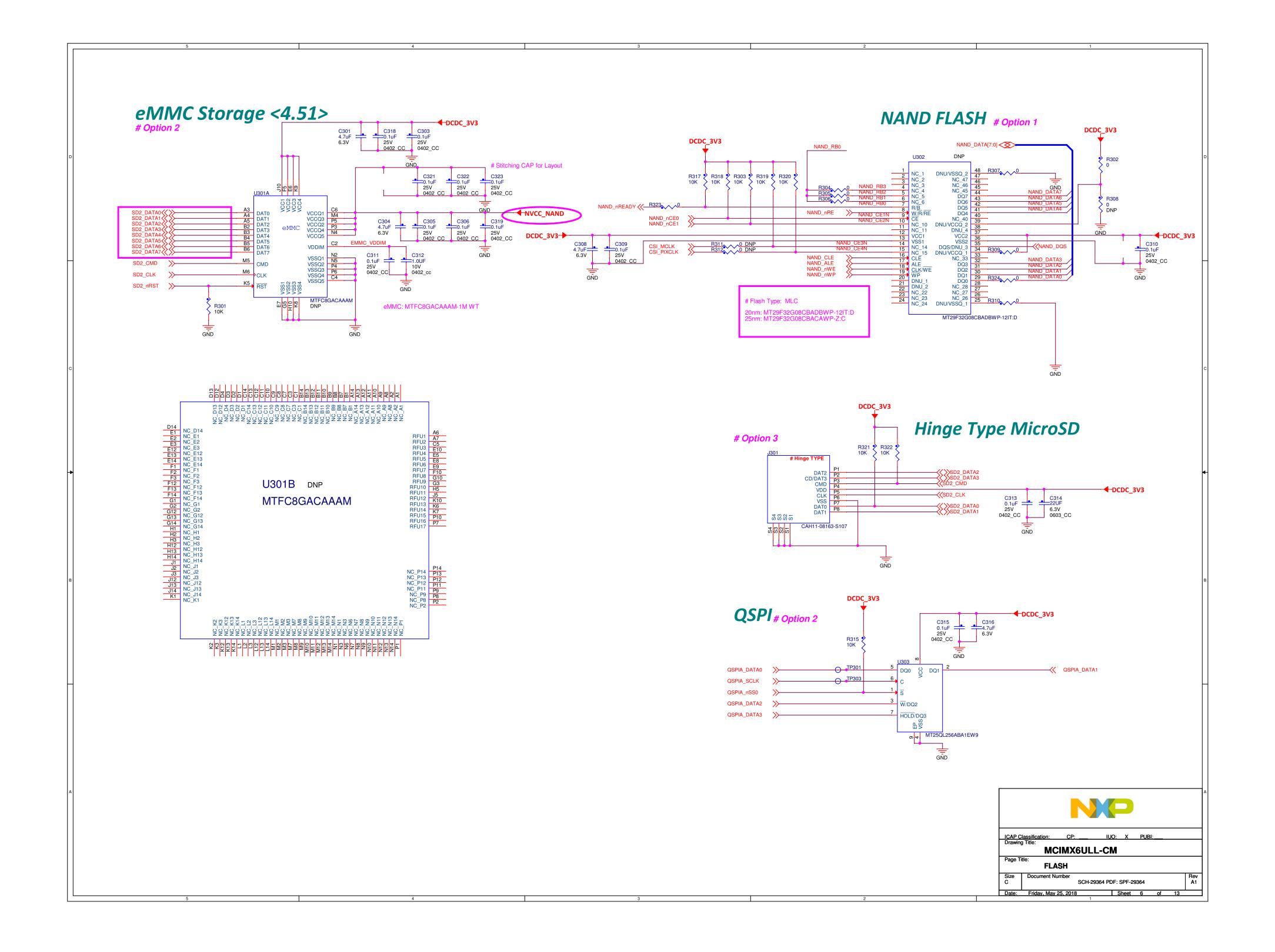


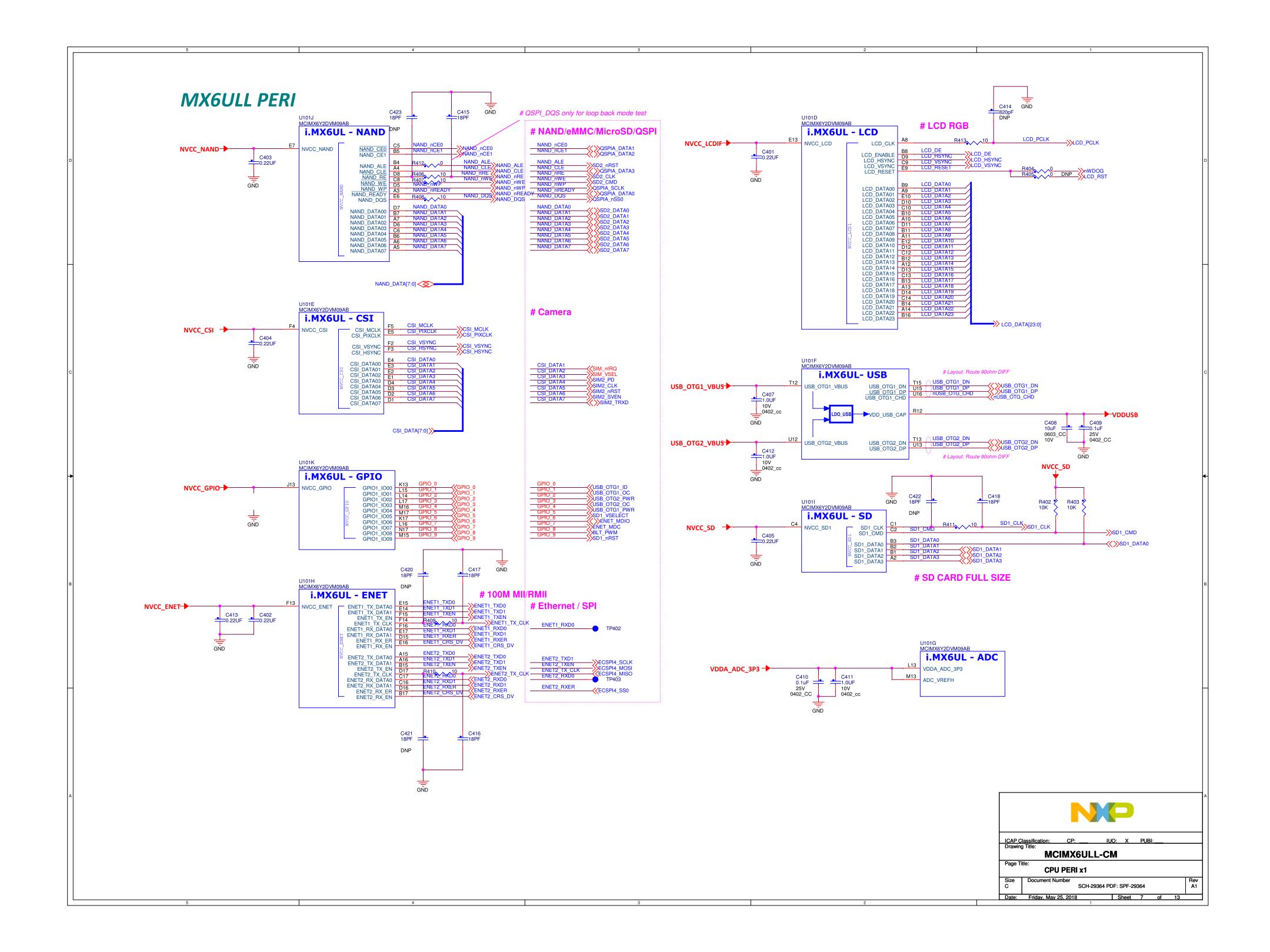
## i.MX6ULL PWR

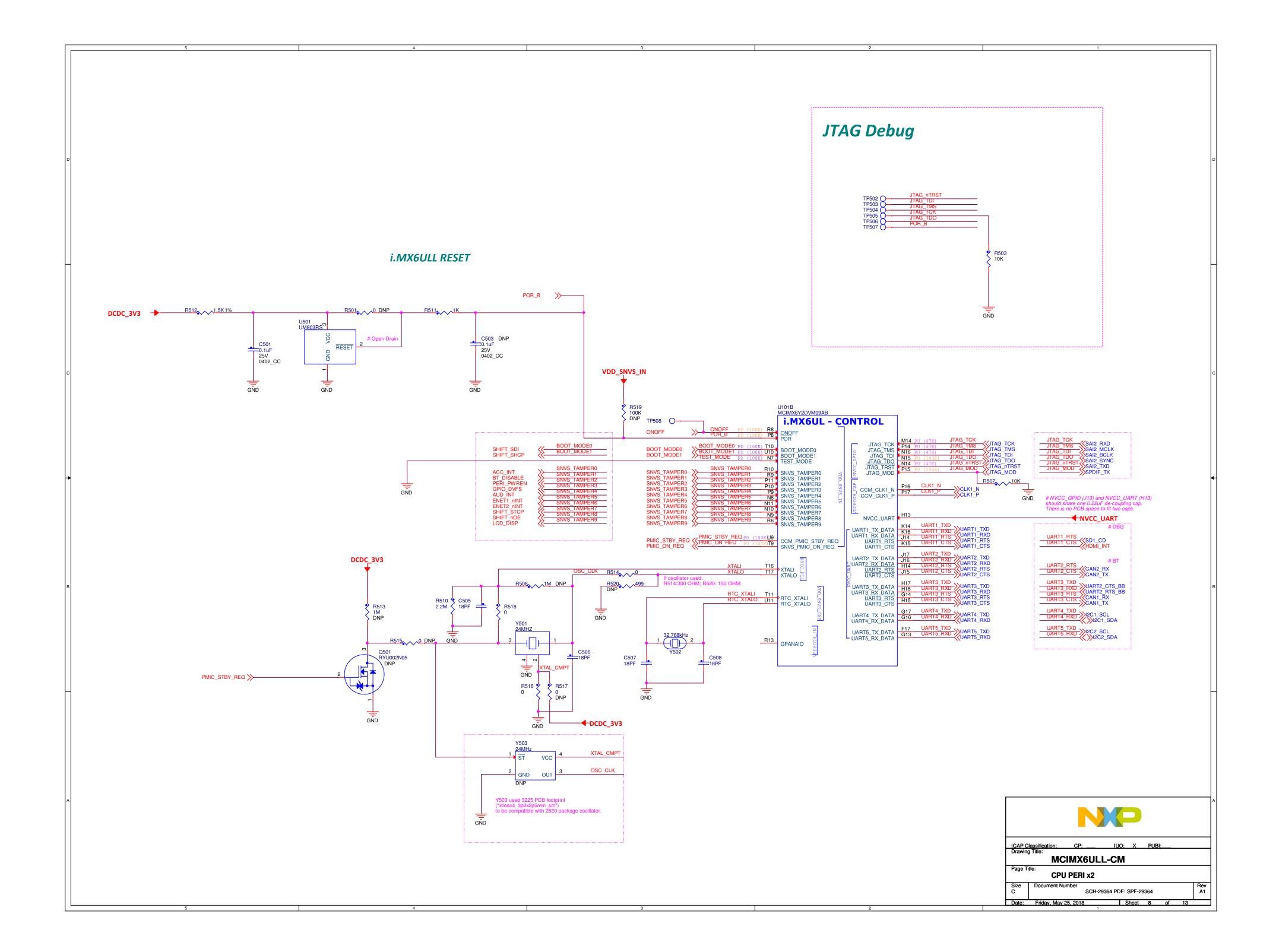


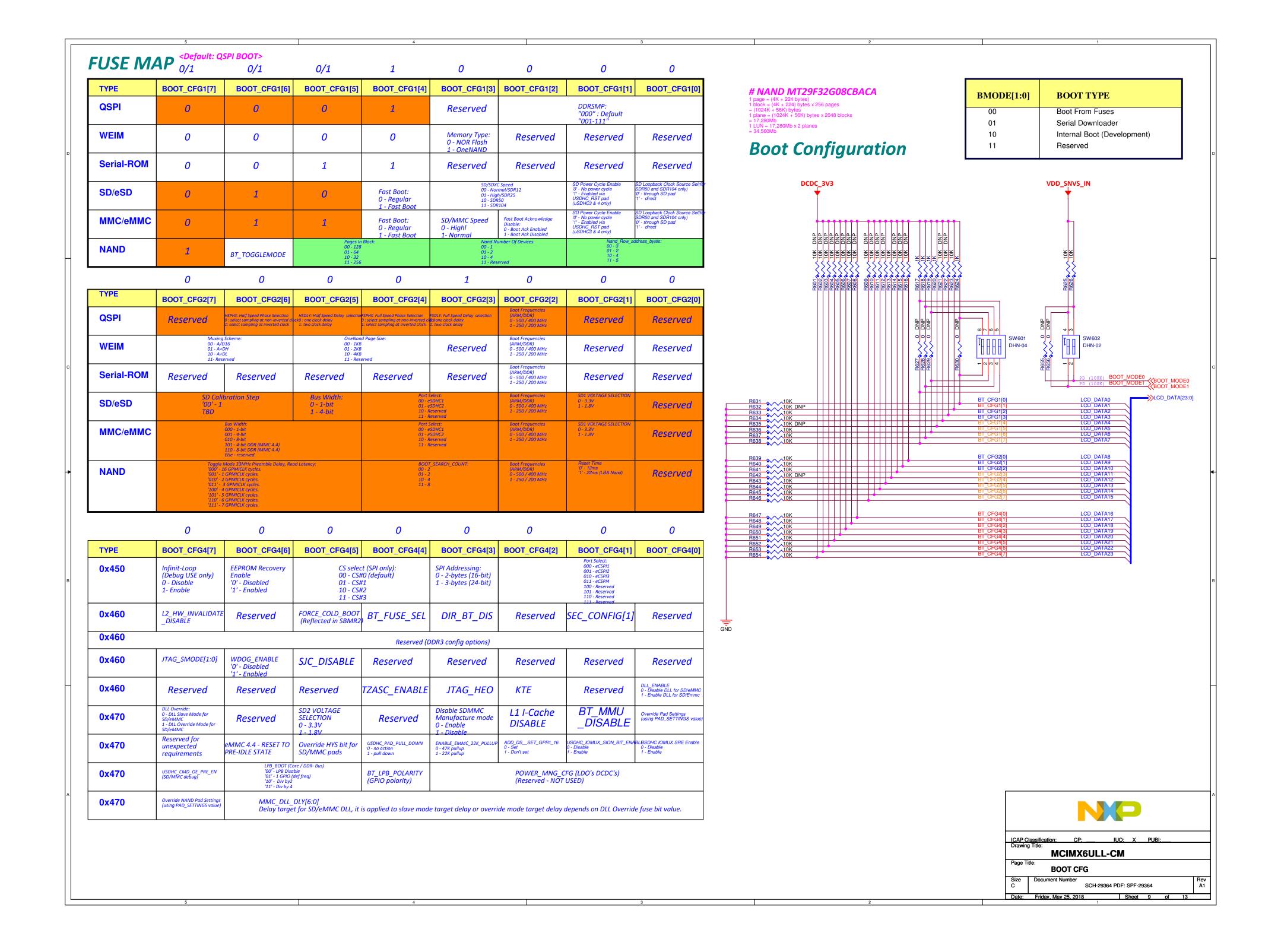


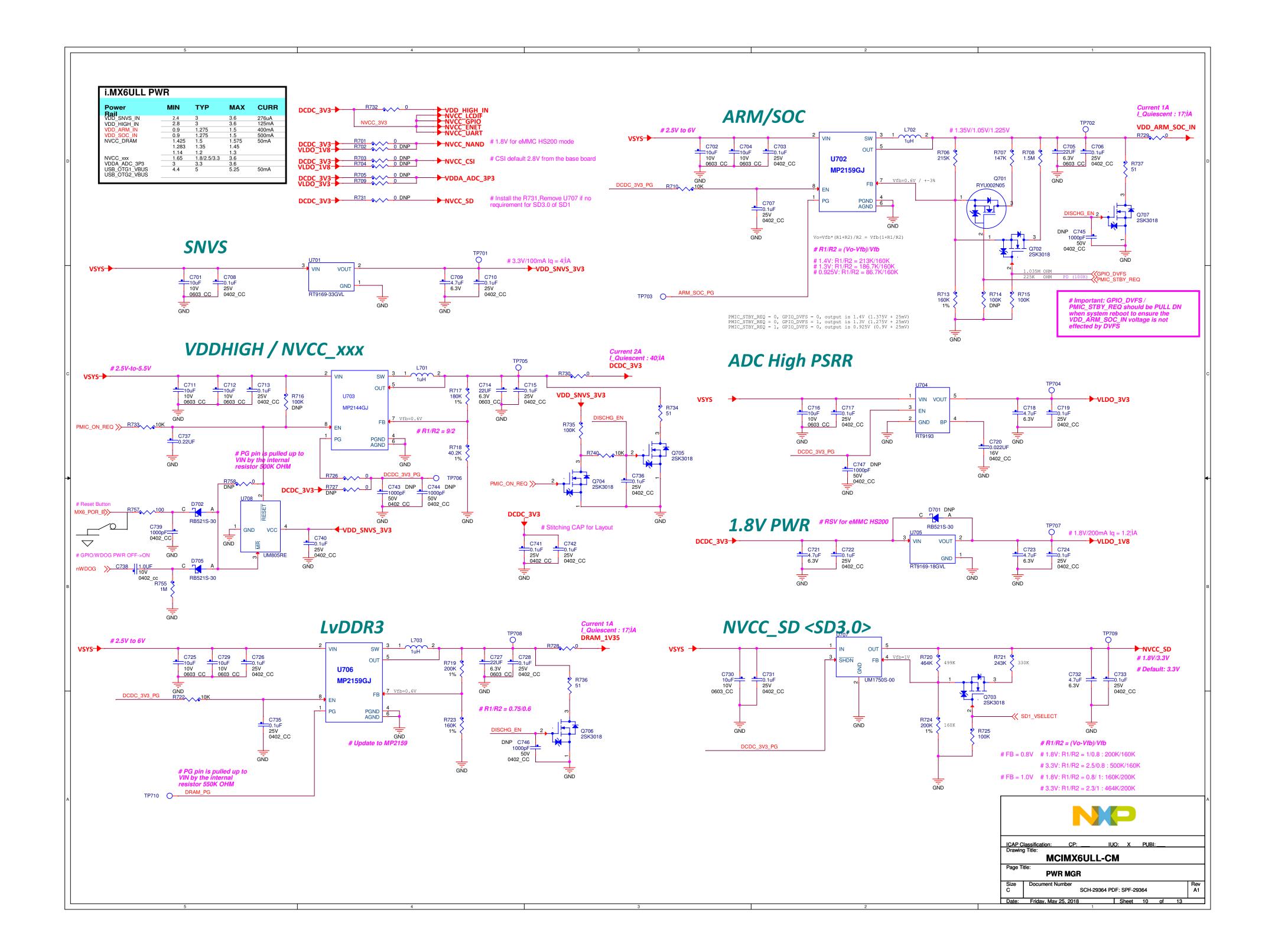


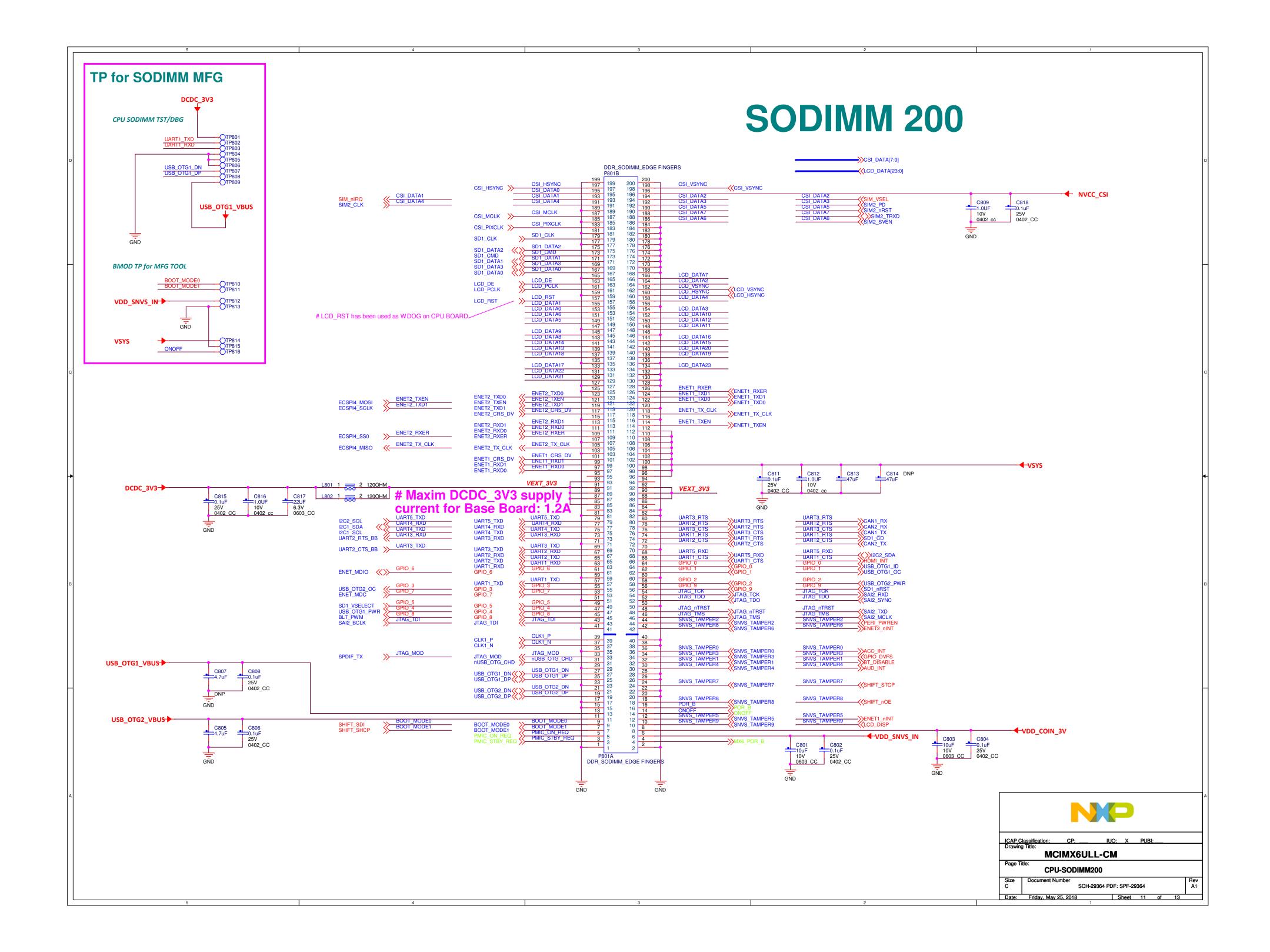












## **NOTE:**

All pins using ~reset as harden:

PAD	Default State	Simulation Value
UART3_TX_DATA	Output Buffer(LOW) during reset> Output keeper + Input enable after reset done	0 in real silicon
LCD_DATA00~LCD_DATA23	100K pull down + input enable during reset> Output keeper + Input enable after reset done (this is boot option, we don; t need change)	0 in real silicon

PAD	Default State	Signal Path	PAD Simulation Value
UART3_TX_DATA	Output Buffer(LOW) during reset> Output keeper + Input enable after reset done	sjc.ipt_jta_active> PAD	0 in real silicon
		(note: sjc.ipt_jta_active also connected to snvs_hp.sec_vio_in_1. This is security related, we don; t plan to change it.)	ALT7

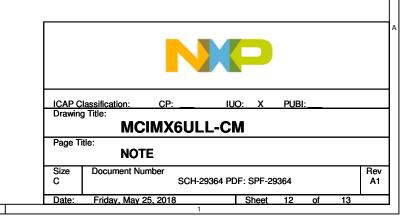
All pins using ~src.en\_system\_clk as harden:

PAD	Default State	Simulation Value
GPIO1_IO03	100K pull down + input enable during reset> Output keeper + Input enable after reset done	0 in real silicon

PAD	Default State	Signal Path	PAD Simulation Value
GPIO1_IO03	100K pull down + input enable during reset> Output keeper + Input enable after	PAD> ccmsrcmix. src_tester_ack	0 in real silicon
	reset done	This is the requirement of TE test	ALT7

All pins using snvs\_hp.snvs\_sec\_vio\_in\_5\_en as harden :

PAD	Default State	Simulation Value
CSI_PIXCLK	Output keeper + Input enable (snvs_sec_vio_in_5_en is 1; b0 in normal state, so harden is not triggerd in normal state). snvs_sec_vio_in_5_en is controlled by SNVS register. It can be disable or enable.	X (0 or 1 in real silicon )



NAME	Default	ALTo	ALT1	ALT2	ALT3	ALT4	ALT5	ALT6	ALT7	ALT8	ALT9	PAD DFU
TEST_MODE POR B ONOFF SNVS_PMIC_ON_REQ CCM_PMIC_STBY_REQ BOOT_MODE01 SNVS_TAMPEN0 SNVS_TAMPER1 SNVS_TAMPER2 SNVS_TAMPER3 SNVS_TAMPER5 SNVS_TAMPER5 SNVS_TAMPER6 SNVS_TAMPER7 SNVS_TAMPER7 SNVS_TAMPER8 SNVS_TAMPER9 JTAG_MOD JTAG_TDI JTAG_TD	tcu.TEST_MODE src.POR B src.RESET B srvs.lp_wrapper.SNVS_WAKEUP_ALARM ccm.PMIC_VSTBY_REQ src.BOOT_MODE[0] src.BOOT_MODE[0] src.BOOT_MODE[1] snvs.lp_wrapper.SNVS_TD1 snvs.l	tcu.TEST_MODE src.POR_B src.POR_B src.POR_B src.POR_B src.POR_B src.POR_B src.POR_C src.BOOT_MODE[0] src.DOT_MODE[0] src.BOOT_MODE[0] src.BooT	gpt2.CLK gpt2.CAPTURE1 gpt2.COMPARE1 gpt2.COMPARE2 gpt2.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt1.COMPARE3 gpt3.OMT enet2.MDIO enet2.MDC wdog1.WDOG_B global wdog enet1.RDATA[2] enet1.RDATA[2] enet1.RDATA[2] enet1.TDATA[2] enet1.TDATA[2] enet1.TDATA[2] enet1.TDATA[2] enet2.RDATA[2] enet2.RDATA[2] enet2.RDATA[2] enet2.RDATA[3] enet2.RDATA[3] enet2.CS enet2.TDATA[3] enet2.TS_B uart4.CTS_B uart5.CTS_B uart5.CTS_B uart5.CTS_B uart5.CTS_B uart6.TS_B uart7.CTS_B uart6.TS_B uart7.TS_B uart6.TX uart8.RX uart8.TX uart8.RX uart8.TS_B uart7.TS_B uart6.TX uart8.RX uart8.TS_B uart7.TS_B uart7.TS_B uart6.TS_B uart7.TS_B uart7.TS_B uart7.TS_B uart7.TS_B uart7.TS_B uart8.RTS_B uart7.TS_B uart8.RTS_B lcdif.GS_ pwm1.OUT pwm2.OUT pwm3.OUT pwm4.OUT uart8.RX uart8.RS_B lcdif.CS_DATA uart7.TX uart7.TX uart8.RX uart8.TS_B uart7.TS_B spdif.IN sai3.RX_SYNC sai3.TX_BCLK sai3.TX_BCLK sai3.TX_DATA sai3.TX_DATA uart7.TX uart8.RX mqs.LEFT usdhc2.CMD usdhc2.DATA1 usdhc2.DATA1 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA4 usdhc2.DATA4 usdhc2.DATA4 usdhc2.DATA5 usdhc2.DATA1 usdhc2.DATA1 usdhc2.DATA1 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA1 usdhc2.DATA1 usdhc2.DATA1 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA3 usdhc2.DATA4 usdhc2.DATA3 usdhc2.DATA1 usdhc2.DATA3 usdhc2.DATA4	spdif.OUT sai2.MCLK sai2.TX_SYNC sai2.TX_SYNC sai2.TX_DATA anatop.OTG1 ID usb.OTG1_OC usb.OTG2_OC usb.OTG2_PWR usb.OTG2_PWR usb.OTG2_PWR usb.OTG2_DC usb.OTG1_PWR anatop.OTG2_ID usb.OTG_HOST_MODE spdif.OUT spdif.IN i2c3.SCL i2c3.SDA usdhc1.WP usdhc1.CD_B i2c4.SCL i2c4.SCL i2c4.SCL i2c4.SCL i2c2.SDA can2.TX can2.RX  can1.TX can1.RX can1.RX i2c1.SCL i2c2.SDA pwm1.OUT pwm5.OUT pwm5.OUT pwm5.OUT pwm8.OUT	anatop.ENET_REF_CLK_25M ccm.CLKO1 ccm.CLKO2 ccm.OUT0 ccm.OUT1 ccm.OUT2 anatop.ENET_REF_CLK1 anatop.ENET_REF_CLK2 anatop.ENET_REF_CLK2 anatop.ENET_REF_CLK_25M osc32k.32K_OUT anatop.24M_OUT csi.FIELD csi.MCLK csi.PXTCLK csi.VSYNC csi.DATA[2] csi.DATA[3] csi.DATA[4] csi.DATA[6] csi.DATA[6] csi.DATA[6] csi.DATA[1] csi.DATA[2] csi.DATA[1] csi.DA	ccm.PMIC_RDY ccm.WAIT ccm.STOP pwm6.OUT pwm7.OUT pwm8.OUT mys.RIGHT mgs.RIGHT mgs.LEFT usdhc1.WP usdhc1.CD_B usdhc1.VSELECT usdhc2.WP usdhc2.VSELECT usdhc2.WF usdhc2.VSELECT usdhc2.RESET_B gpt1.COMPARE1 gpt1.CLK enet2.1588_EVENT1_OL gpt1.CAPTURE1 gpt1.CAPTURE2 gpt1.COMPARE3 uart2.CTS_B uart2.RTS_B enet1.1588_EVENT1_OL csu.CSU_ALARM_AUT[2' csu.CSU_ALARM_AUT[2' csu.CSU_ALARM_AUT[0' csu.	gpio1.Io[20] gpio1.Io[21] gpio1.Io[22] gpio1.Io[22] gpio1.Io[22] gpio1.Io[24] gpio1.Io[25] gpio1.Io[26] gpio1.Io[26] gpio1.Io[28] gpio1.Io[29] gpio1.Io[30] gpio1.Io[31] gpio2.Io[0] gpio2.Io[1] gpio2.Io[1] gpio2.Io[5] gpio2.Io[6] gpio2.Io[7] gpio2.Io[6] gpio2.Io[7] gpio2.Io[7] gpio2.Io[8] gpio2.Io[9] gpio2.Io[10] gpio2.Io[10] gpio2.Io[10] gpio2.Io[10] gpio2.Io[10] gpio2.Io[10] gpio2.Io[10] gpio2.Io[11] gpio2.Io[12] gpio2.Io[13] gpio2.Io[13] gpio2.Io[14] gpio2.Io[15] gpio3.Io[0] gpio3.Io[0]	sdma.EXT_EVENT[0] sdma.EXT_EVENT[1] mgs.REFT osc32x.32k OUT anatop.24M OUT OUT enet1.1588 EVENTO_OUT scm.D0_EXT_UK enet2.1588 EVENTO_OUT cenet3.1588 EVENTO_OUT cenet3.1588 EVENTO_OUT ccm.D10_EXT_UK enet2.1588 EVENTO_OUT ccm.BVIC ccm.PMIC RDY usdhc1.RESET B anatop.USBPHY1_TSTI_TX_LS_MODE anatop.USBPHY1_TSTI_TX_DN anatop.USBPHY1_TSTI_TX_DN anatop.USBPHY1_TSTO_RX_SQUELCH anatop.USBPHY1_TSTO_RX_SQUELCH anatop.USBPHY1_TSTO_RX_SCON_DET anatop.USBPHY1_TSTO_RX_SCON_DET 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uart5.RTS_B uart5.RTS_B uart5.CTS_B spdif.OUT spdif.IN usdhc2.WP usdhc2.CD_B ecspi3.SSCLK ecspi3.MSO anatop.OTG1_ID epit1.OUT epit2.OUT epit2.SSG ecspi2.MISO anatop.OTG1_ID epit1.ICLK ecspi2.SSI ecspi2.MISO usdhc1.LCTL usdhc2.LCTL usdhc2.VSELECT udog1.WDOG_RST_B_DEB wdog2.WDOG_RST_B_DEB wdog2.WDOG_RST_B_DEB gpt1.CLK gpt1.CAPTURE2 usb.OTG1_PWR usb.OTG2_DVR usb.OTG2_DVR usb.OTG2_DVR usb.OTG2_DVR usb.OTG2_DC anatop.OTG2_ID global wdog wdog1.WDOG_RST_B_DEB ecspi2.SS1 ecspi2.SS2 ecspi2.SS3 sai1.MCLK sai1.TX_SYNC sai1.TX_SYNC sai1.TX_BCLK sai1.TX_BCLK sai1.TX_DATA sai1.TX_CAPTAB usdhc2.DATA4 usdhc2.DATA4 usdhc2.DATA1 usdhc2.DATA3 ecspi3.SS3 ecspi4.RDY ecspi4.SS3 uart2.TX uart3.TX uart3.TX uart3.TX uart3.TX uart3.TX uart3.TX uart3.TX uart3.TX uart3.TS uart2.TS B ecspi3.SS1 ecspi3.SS1 ecspi4.SS3 ecs	epdc.PWRCTRL[1] epdc.PWRCTRL[2] epdc.PWRCTRL[3] epdc.SDCE[4] epdc.SDCE[6] epdc.SDCE[6] epdc.SDCE[7] epdc.SDCE[8] epdc.SDCE[9] epdc.SDDO[10] epdc.SDDO[11] epdc.SDDO[11] epdc.SDDO[12] epdc.SDDO[12] 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