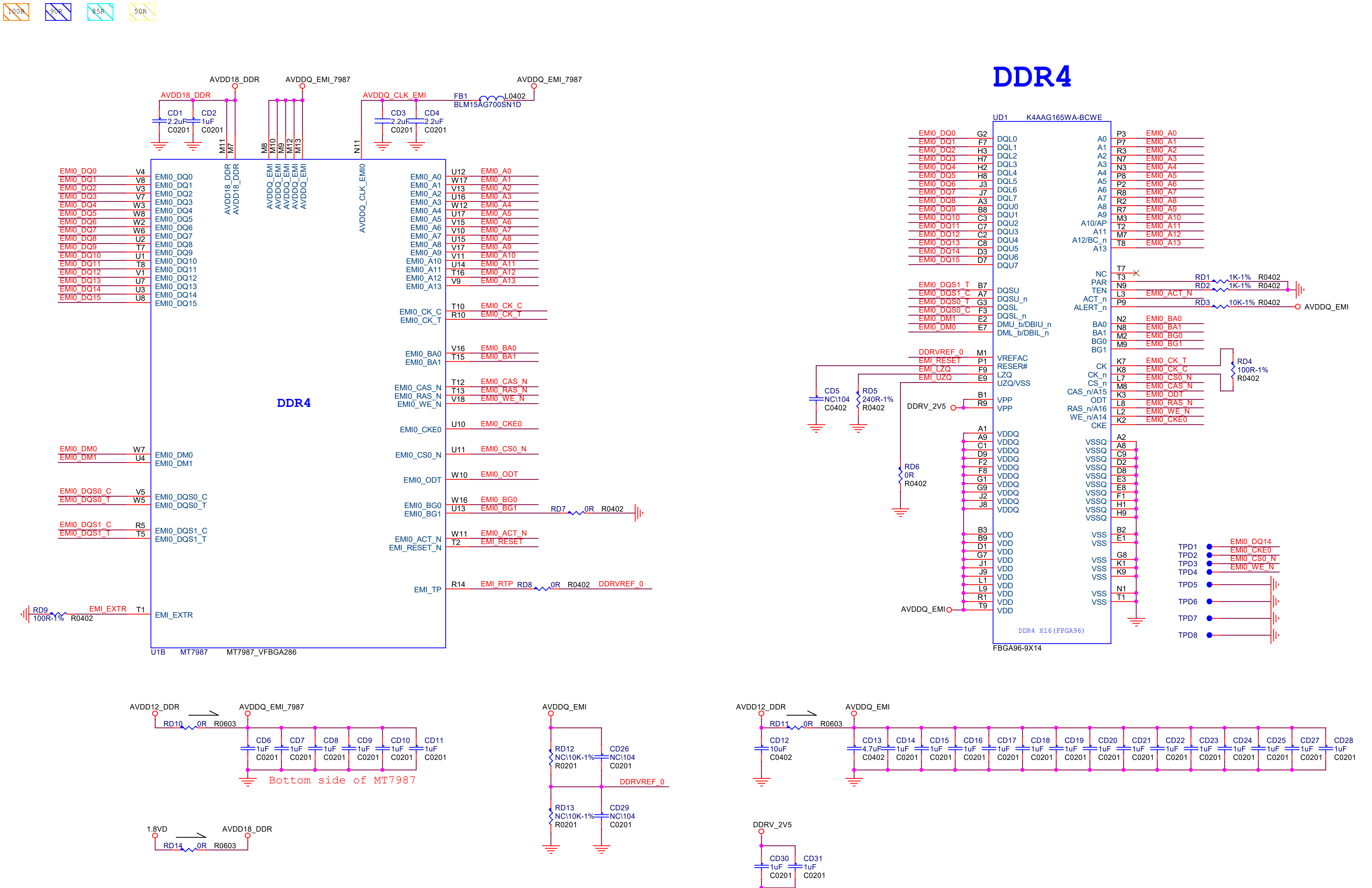

GUANGDONG BIPAI KEJI CPA.LTD

Design Name: BPI-R4-Lite_MT7987

Size	Page Name	Rev
A3	01_MT7987+DDR4x16bx1	V00

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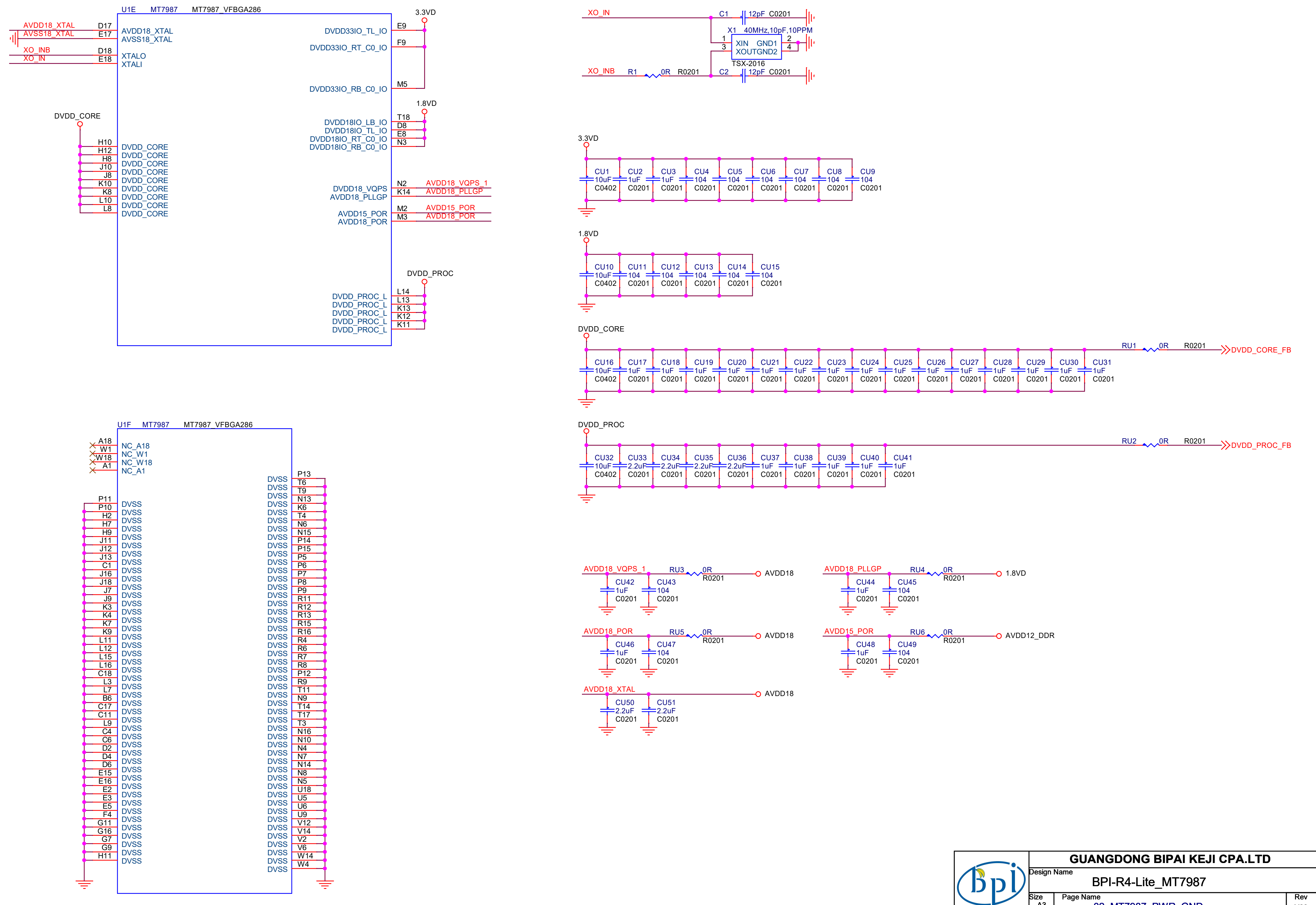

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Design Name: BPI-R4-Lite_MT7987

Size: A3 | Page Name: 02_MT7987_PWR_GND | Rev: V00

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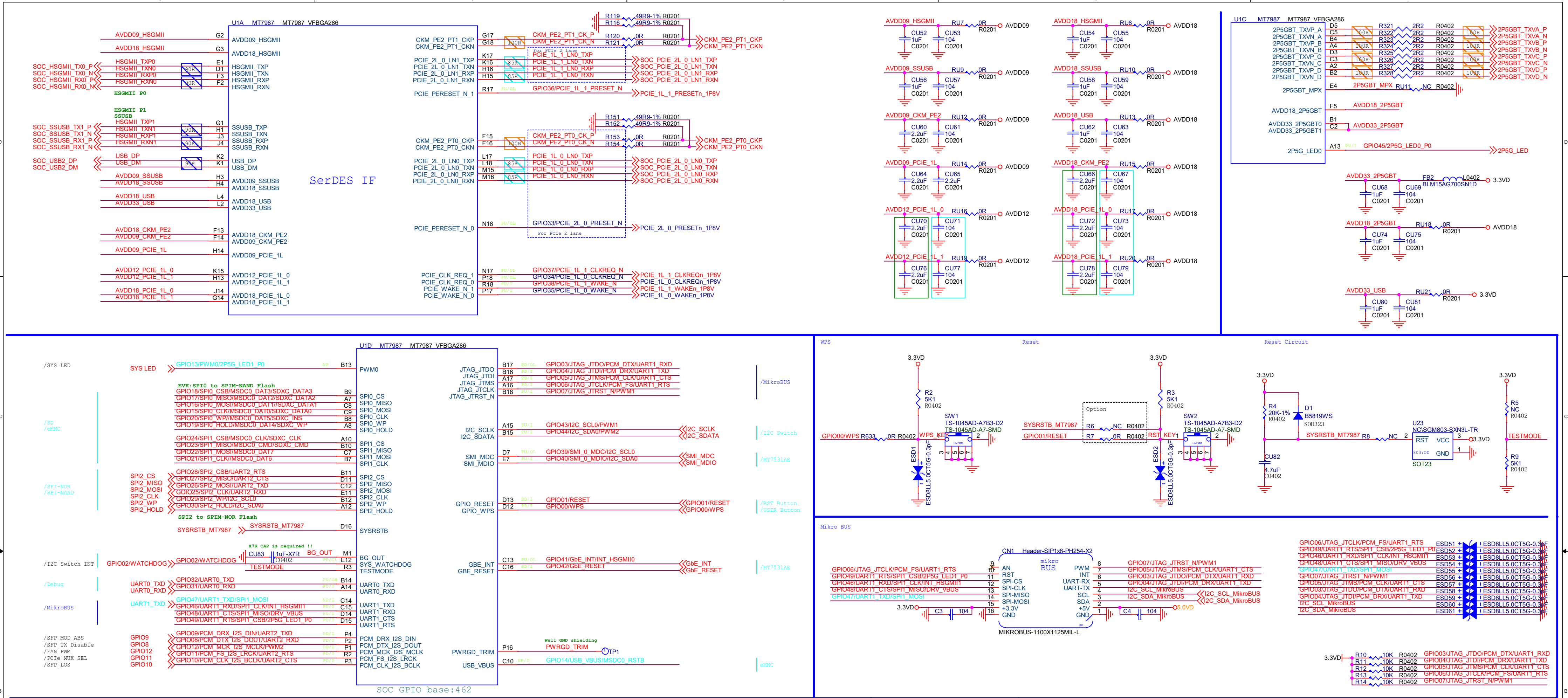
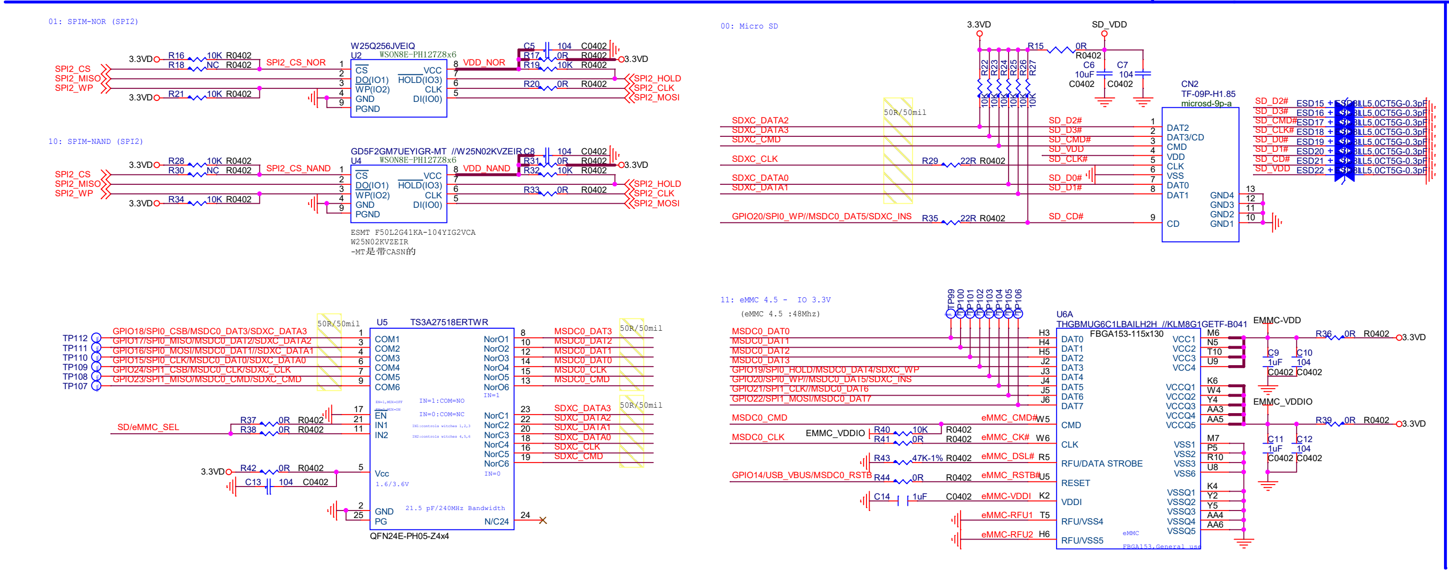
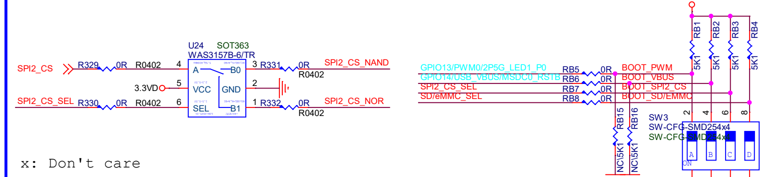


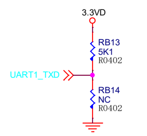


Boot Strapping



x: Don't care

Jumper setting	SW3_A	SW3_B	SW3_C NAND/NOR SEL	SW3_D SD/eMMC SEL
SD :00X0	Low	Low	X	Low
NOR :011X	Low	High	High	X
NAND :100X	High	Low	Low	X
eMMC :11X1	High	High	X	High



Boot Strapping Pin Name	Description	Boot Sequence
(PWM0, USB_VBUS)	Boot mode	00: SD 01: SPI-NOR 10: SPI_NAND 11: eMMC
UART1_TXD	DRAM Type	0: DDR3 1: DDR4(Default)

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Design Name: BPI-R4-Lite_MT7987

Size: A2 | Page Name: 03_MT7987_PCIe_USB_HSGMII_Perip | Rev: V00

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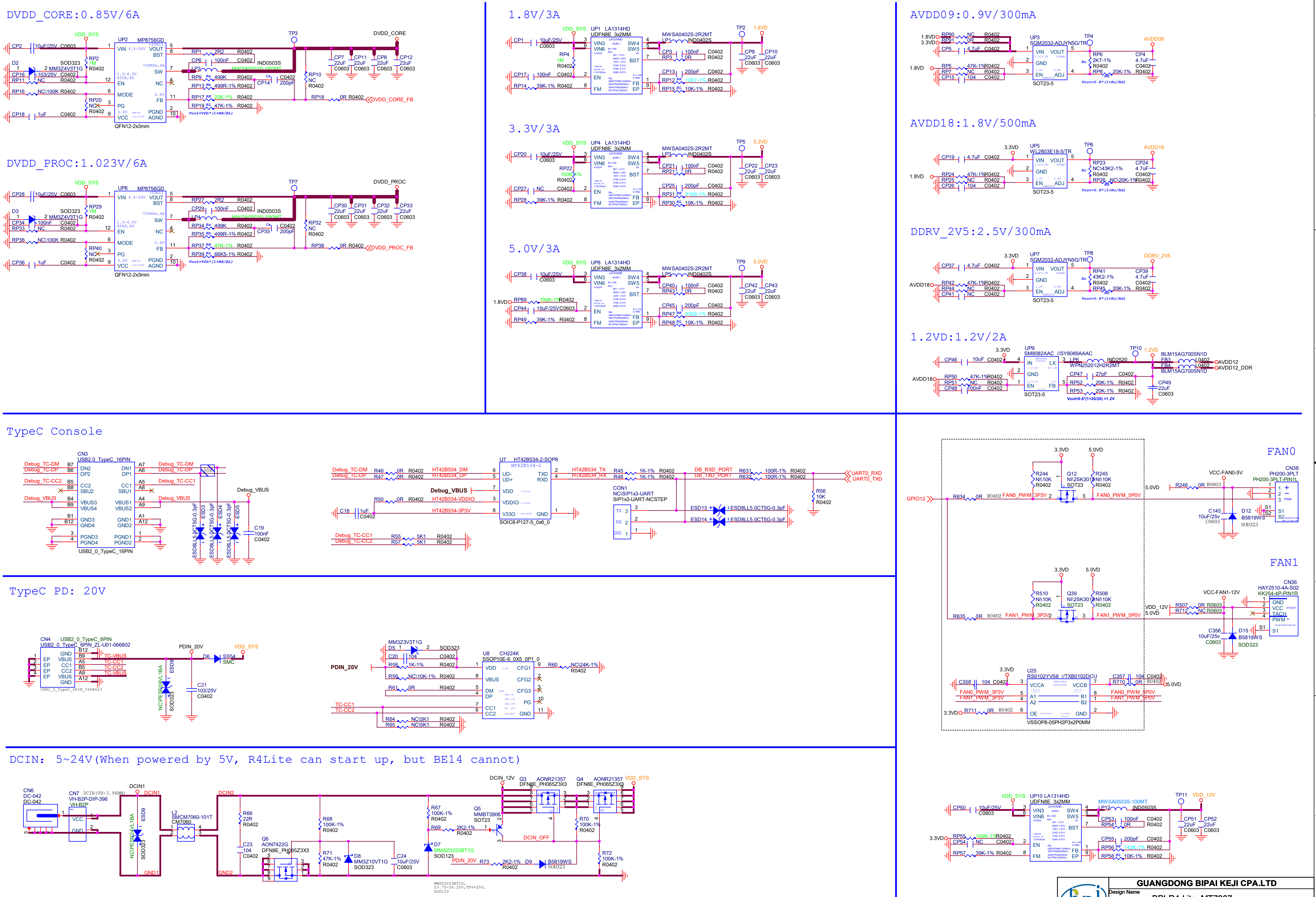

GUANGDONG BIPAI KEJI CPA.LTD

Design Name	BPI-R4-Lite_MT7987	
Size A2	Page Name 04_Power_Bulk_LDO	Rev V00
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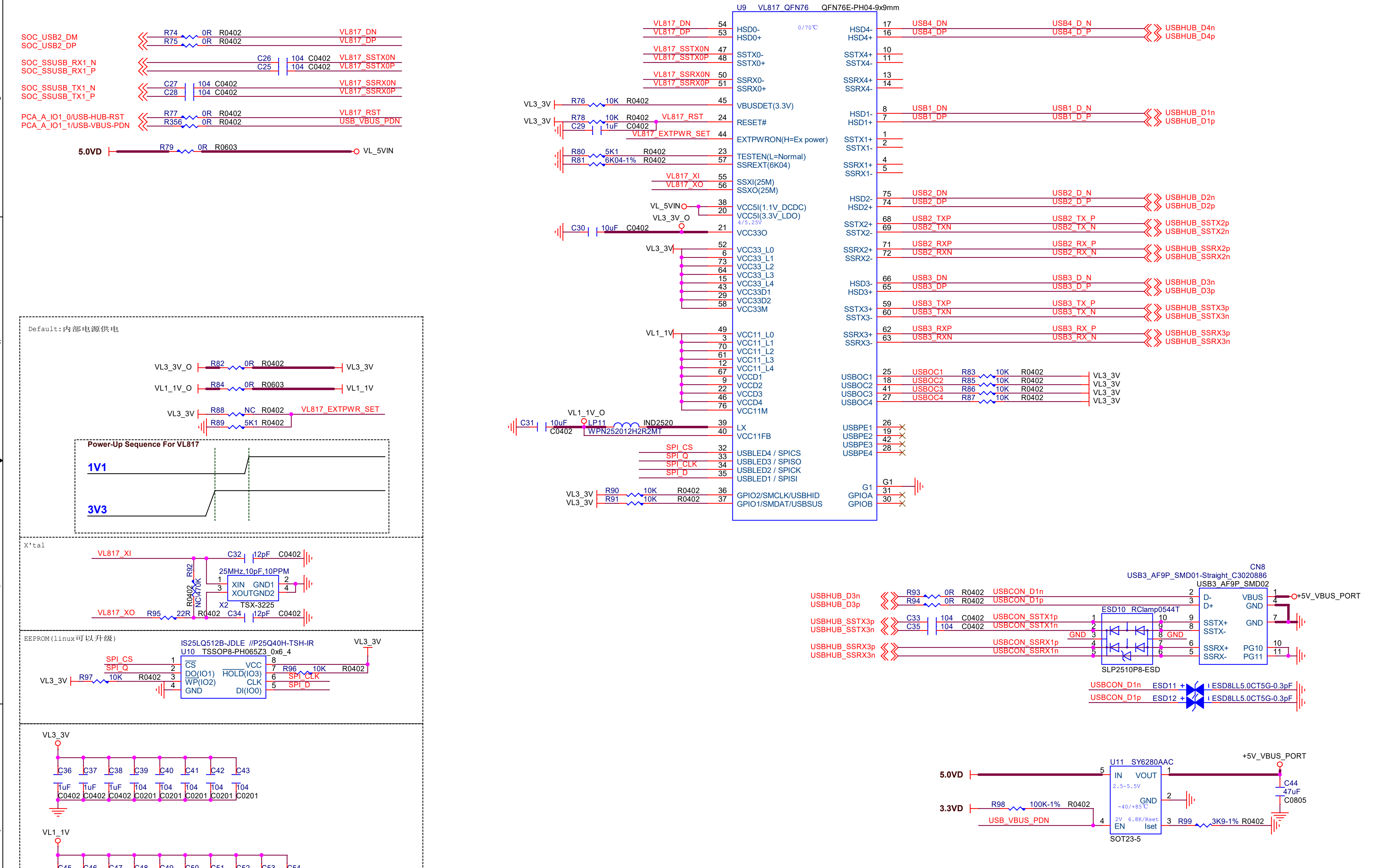
USB3.0 HUB



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Design Name: BPI-R4-Lite_MT7987

Size: A3 | Page Name: 05_USB3_HUB | Rev: V00

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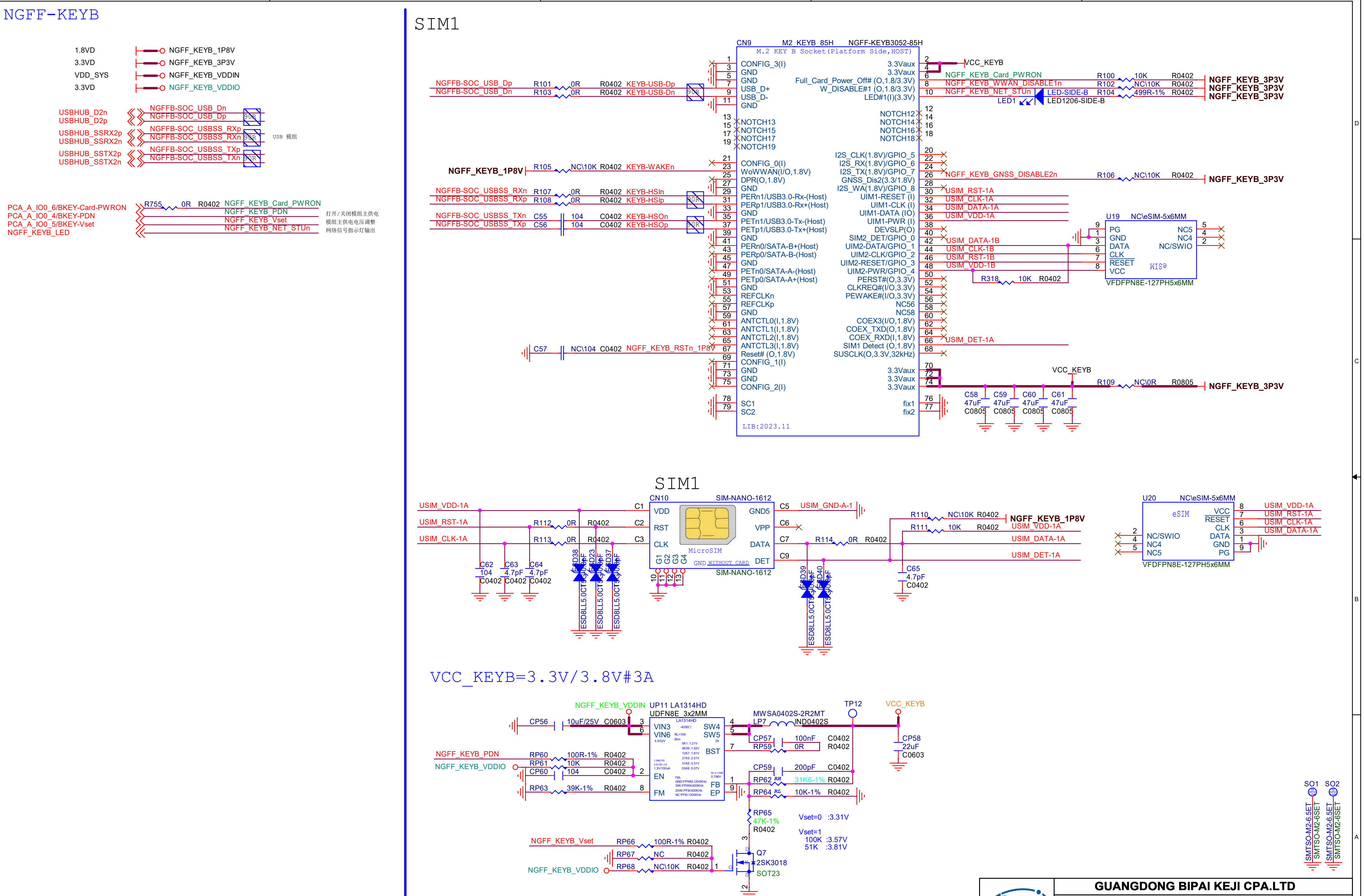

GUANGDONG BIPAI KEJI CPA.LTD			
Design Name	BPI-R4-Lite_MT7987		
Size A3	Page Name 06_NGFF_KEYB_5G		Rev V00
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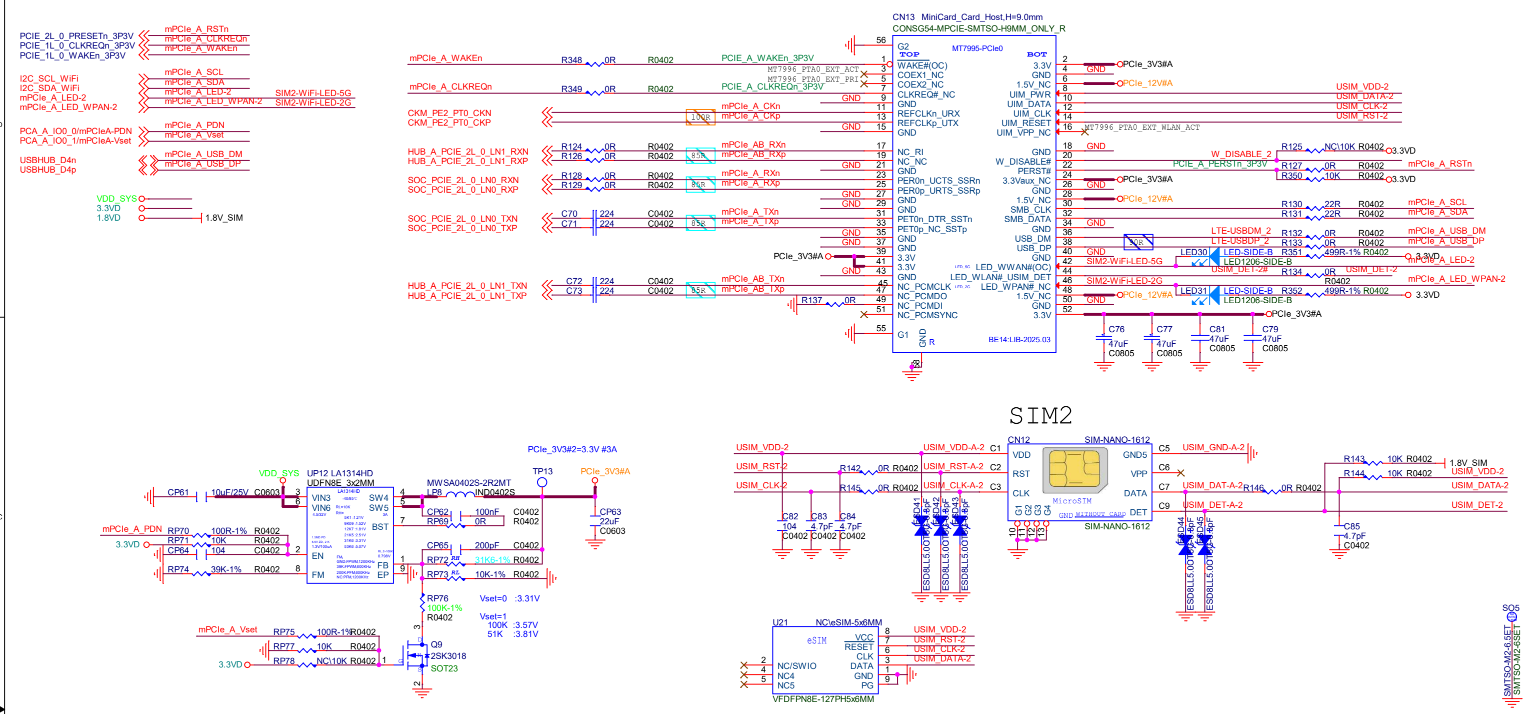
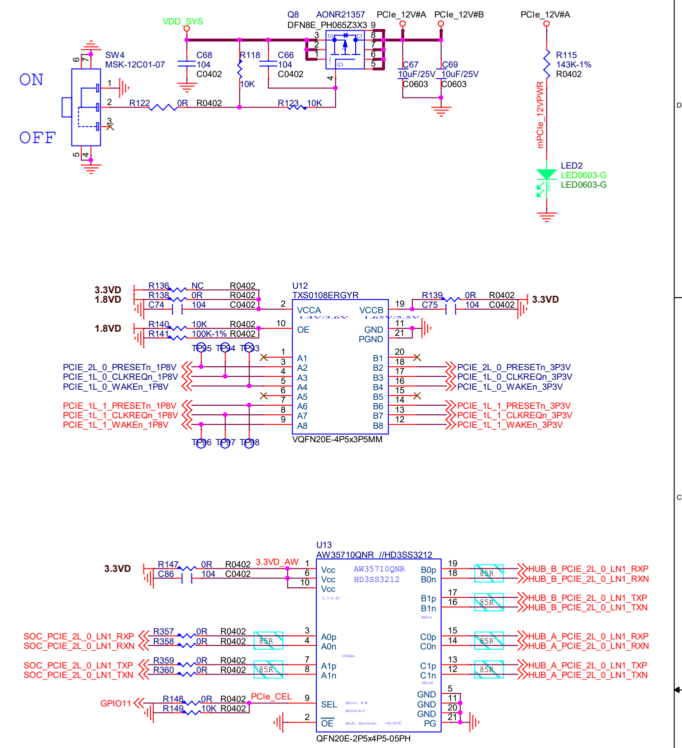
mPCIe_A(PCIe0)

SIM2

Confirm the PIN6, PIN28, PIN48 of the 4G/5G module,
If it is not NC, DO NOT install and powered on! ! !

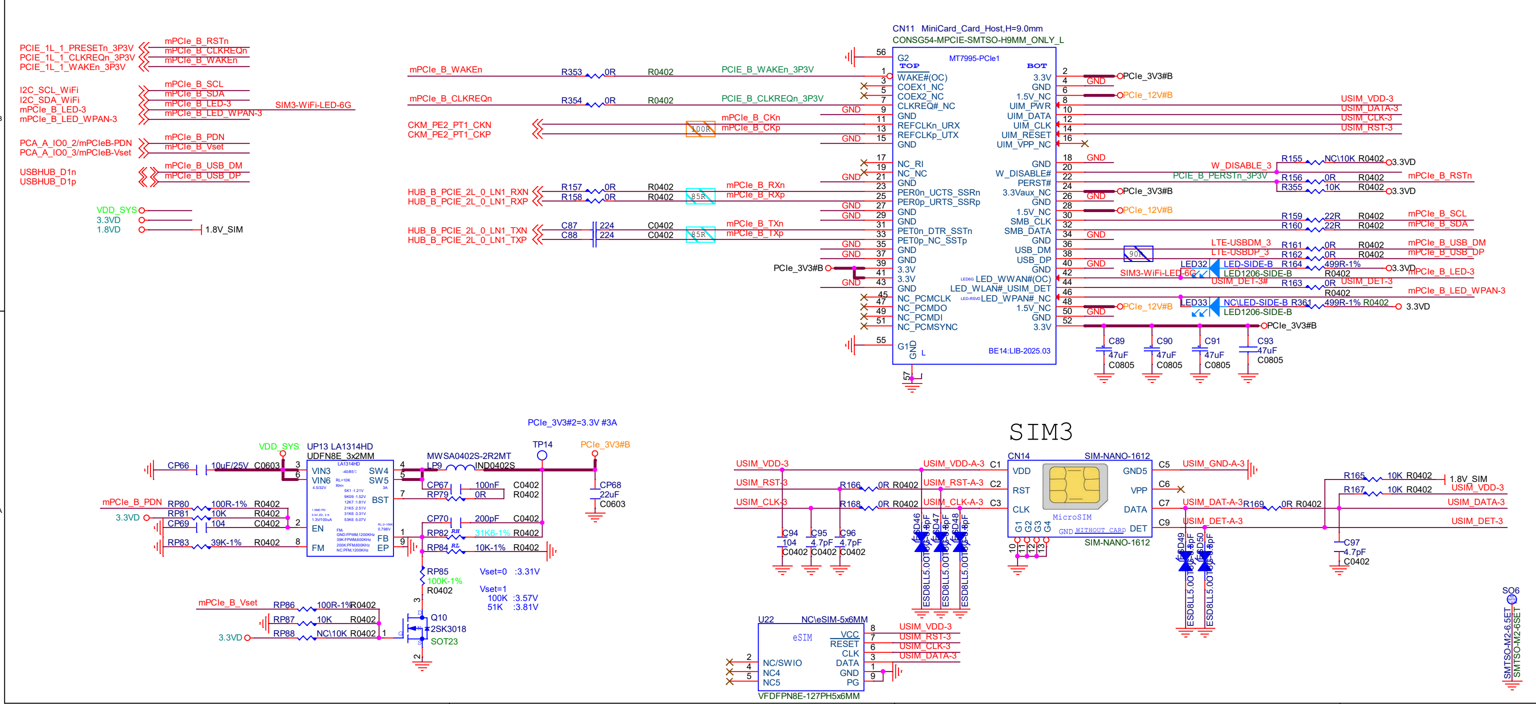




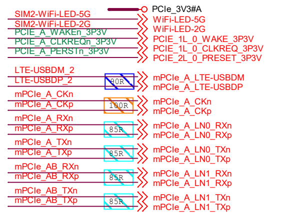
mPCIe_B(PCIe1)

SIM3

Confirm the PIN6, PIN28, PIN48 of the 4G/5G module,
If it is not NC, DO NOT install and powered on! ! !



PCIe Setting	mPCIe Slot A	mPCIe Slot B
GPIO11	1	0
PCIe 2lane	WiFi:BE14	X
PCIe 1Lane + 1Lane	WiFi:BE03/BE05/WiFi6	mPCIe Device
PCIe 1Lane + 1Lane	WiFi:BE03/BE05/WiFi6	4G LTE
PCIe 1Lane + 1Lane	4G LTE	4G LTE



GUANGDONG BIPAI KEJI CPA.LTD			
Design Name	BPI-R4-Lite_MT7987		
Size A2	Page Name 07_MiniPCIe		Rev V1.1
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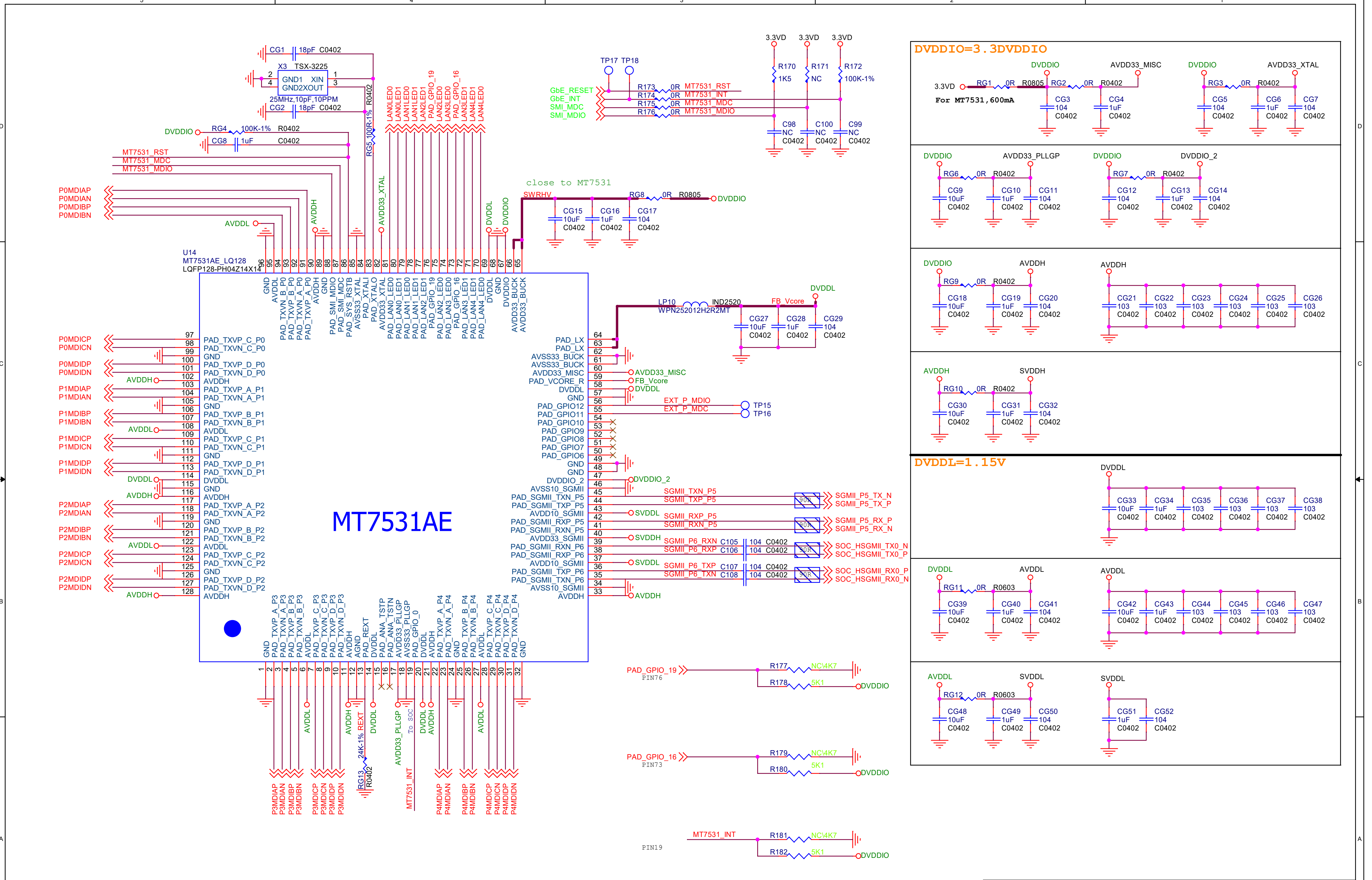

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Design Name: BPI-R4-Lite_MT7987

Size: A3 | Page Name: 08_MT7531AE_Giga Switch | Rev: V1.1

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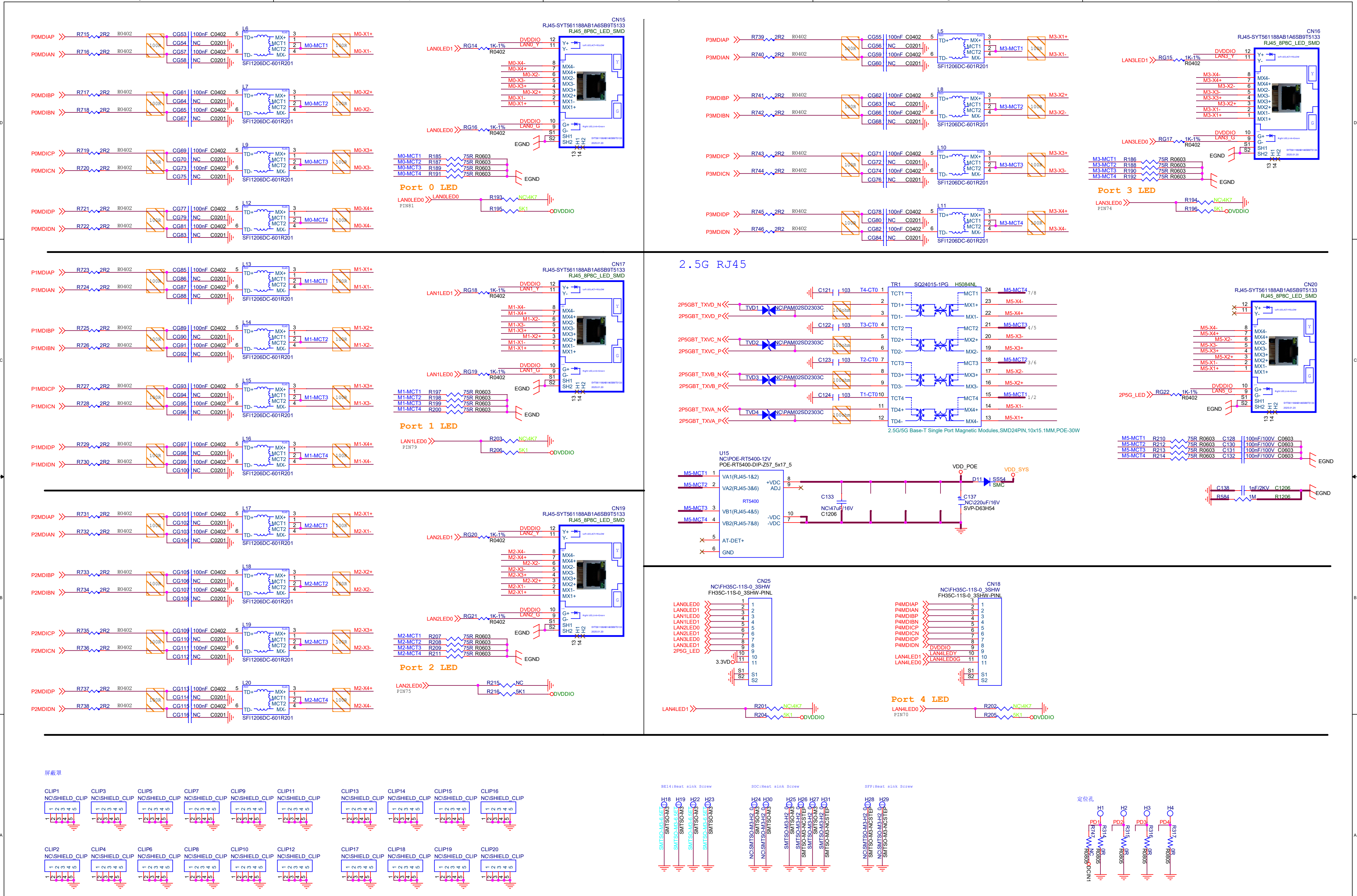

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Design Name: BPI-R4-Lite_MT7987

Size: A2

Page Name: 09_GbE_Transformer_LED

Rev: V1.1

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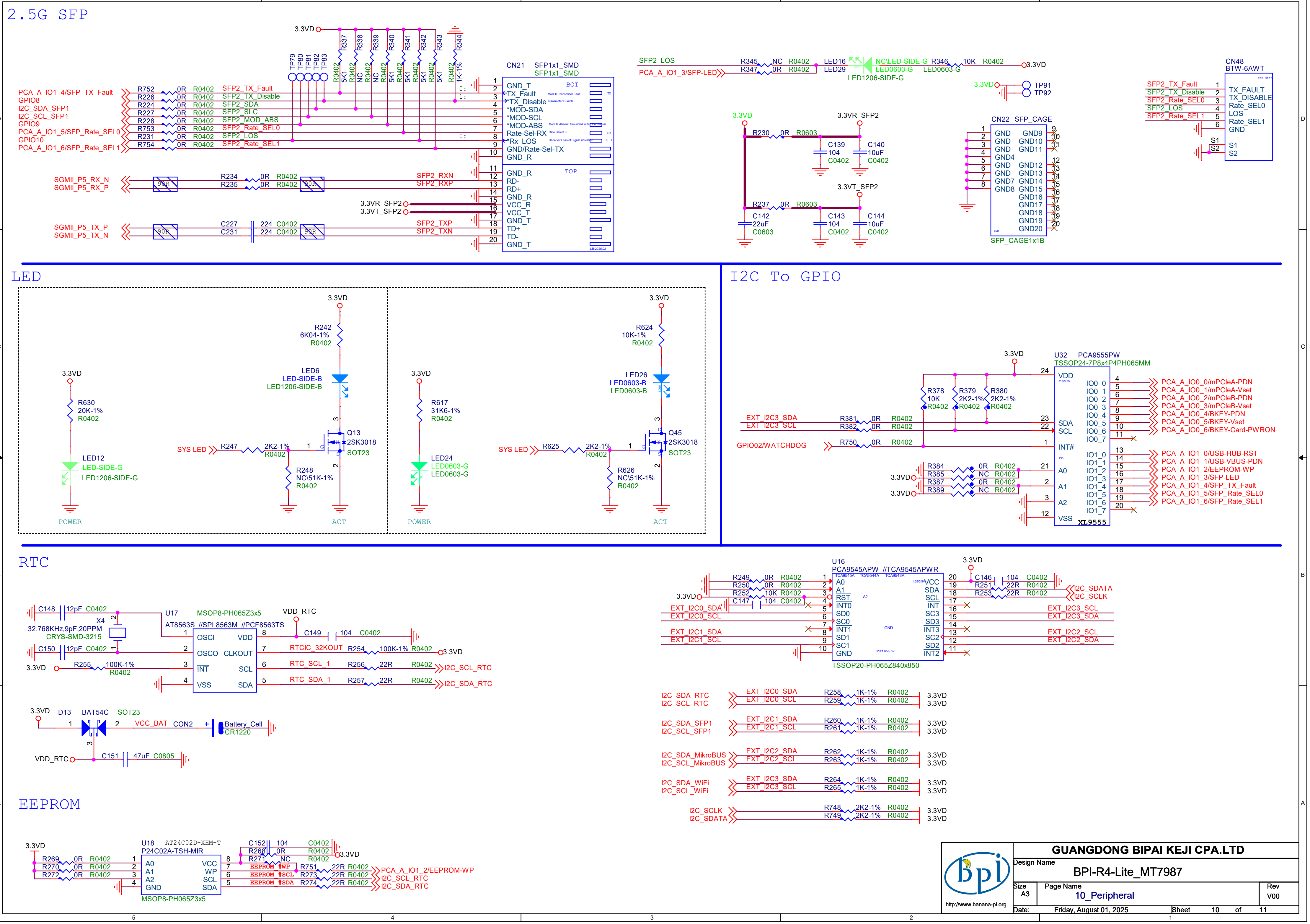

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Design Name: BPI-R4-Lite_MT7987

Size: A3 | Page Name: 10_Peripheral | Rev: V00

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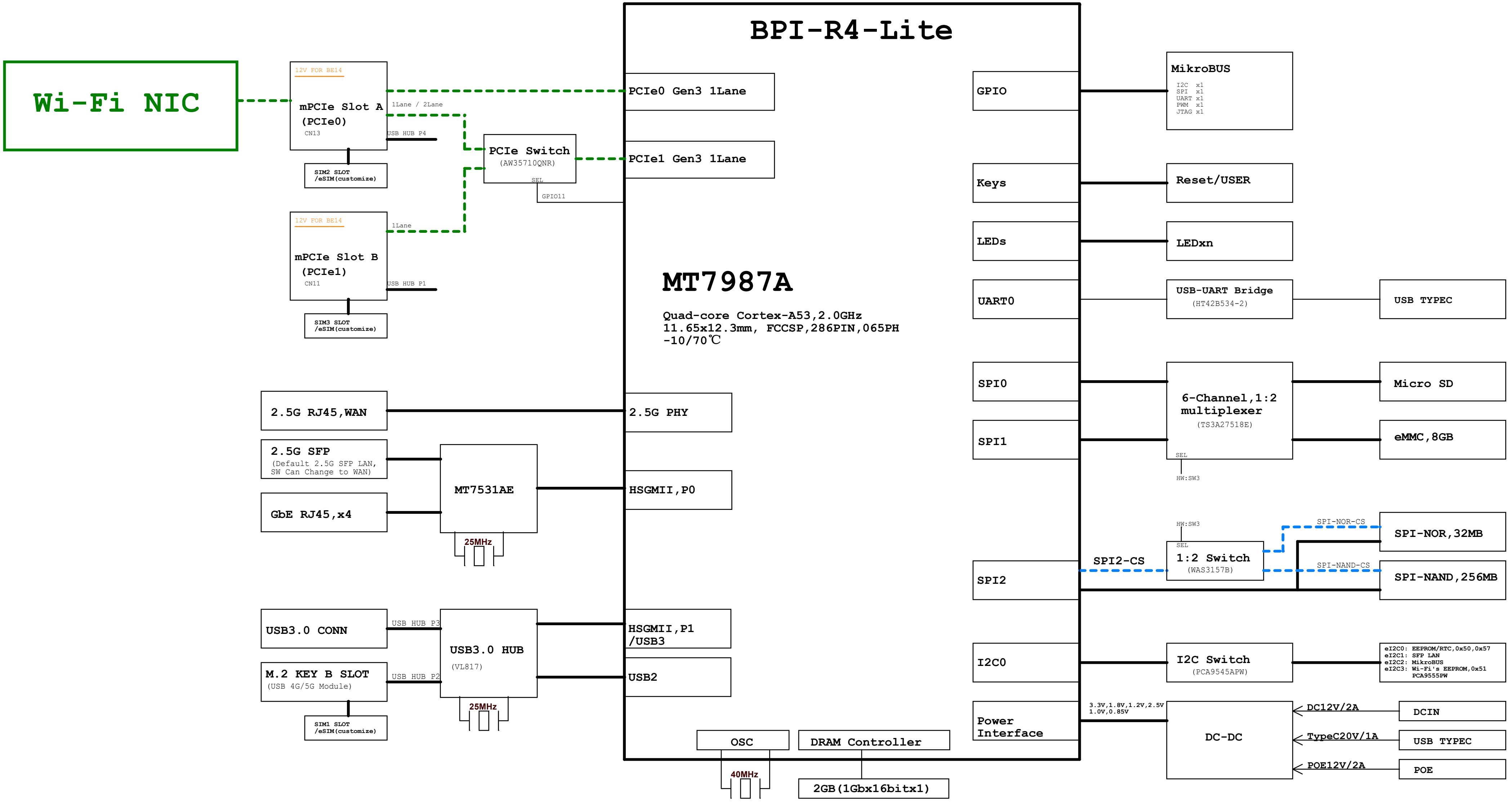

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Design Name	BPI-R4-Lite_MT7987	
Size A3	Page Name D01_Block Diagram	Rev V00
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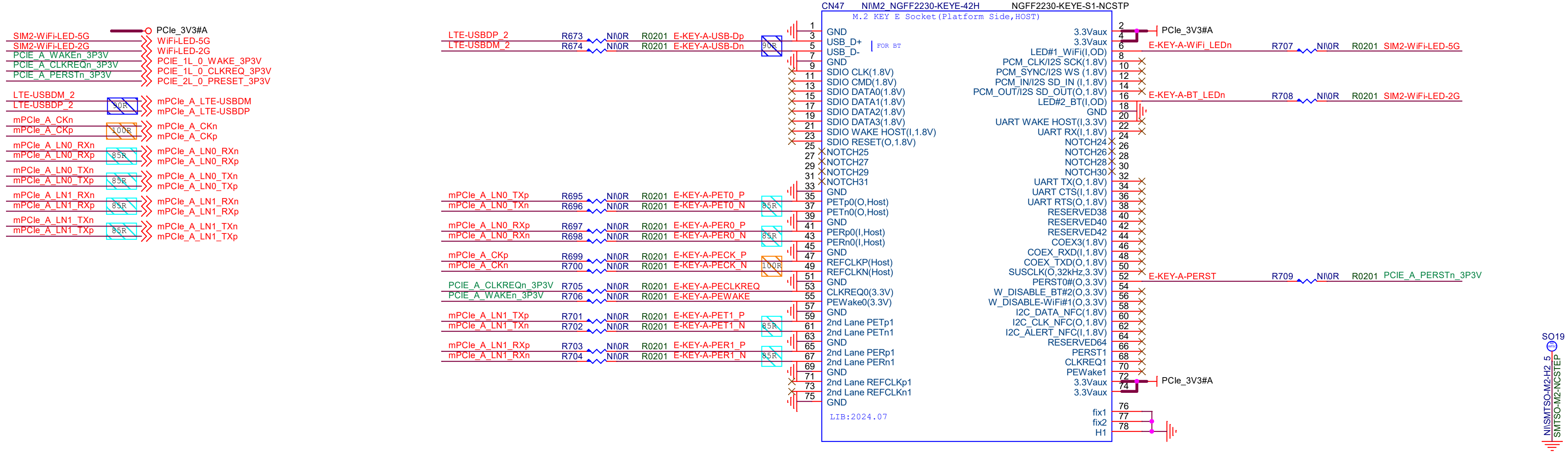
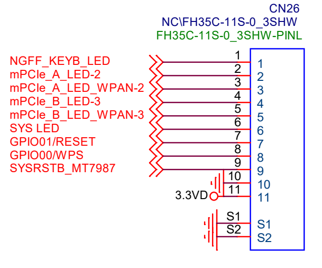
NGFF_EKEY_A(RSVD)



FPC



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	Design Name: BPI-R4-Lite_MT7987		
	Size: A3	Page Name: 11_EKEY_NGFF	Rev: V00
	Date: Friday, August 01, 2025	Sheet 20 of 24	