

Data Release	Project	Descriptions
12/05/2021	PCB-K01-SOM-V1.0.1	PP1

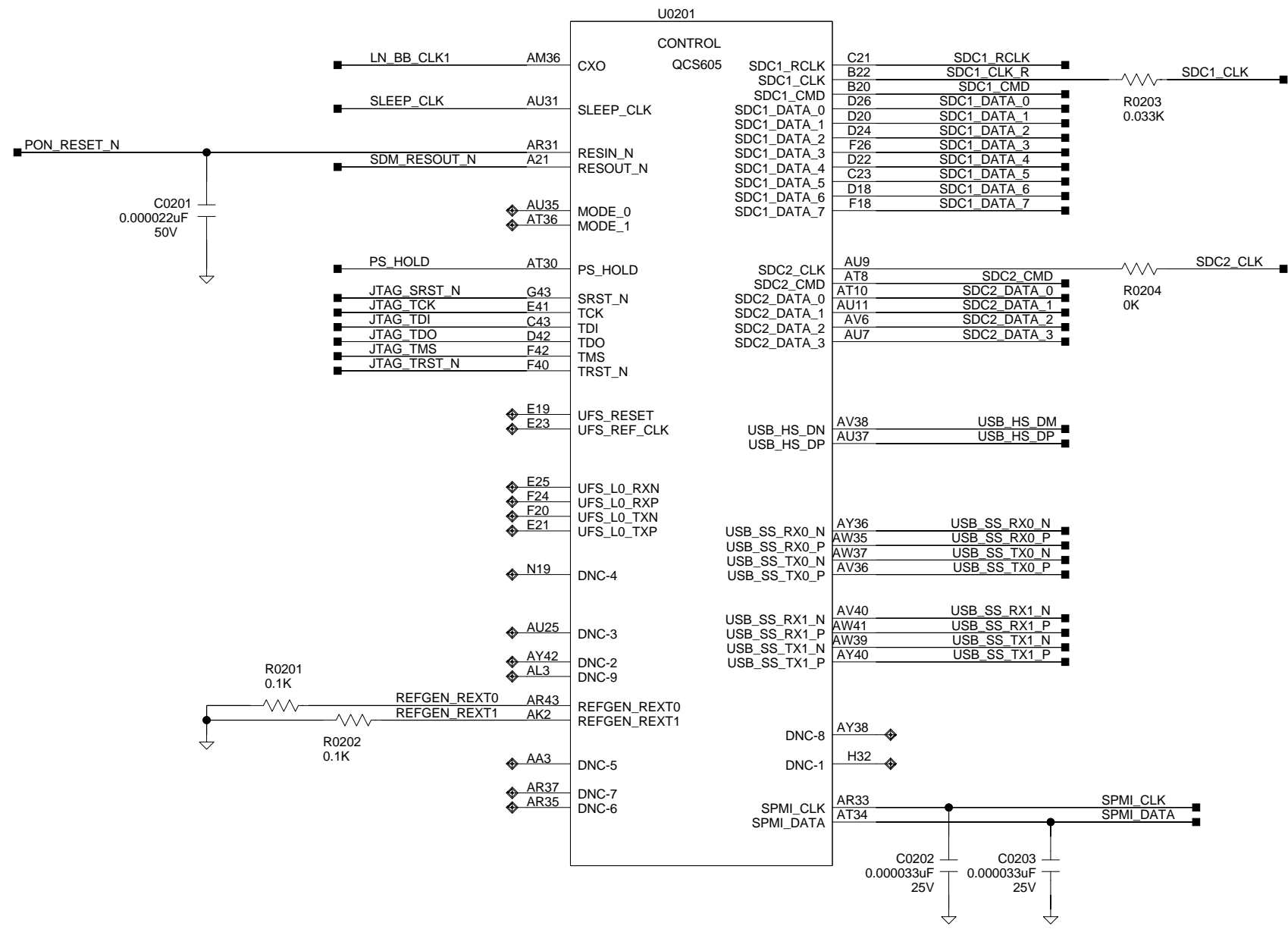
Confidential			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 01 Revision		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:19:42	

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 02 QCS605 CONTROL		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:36	

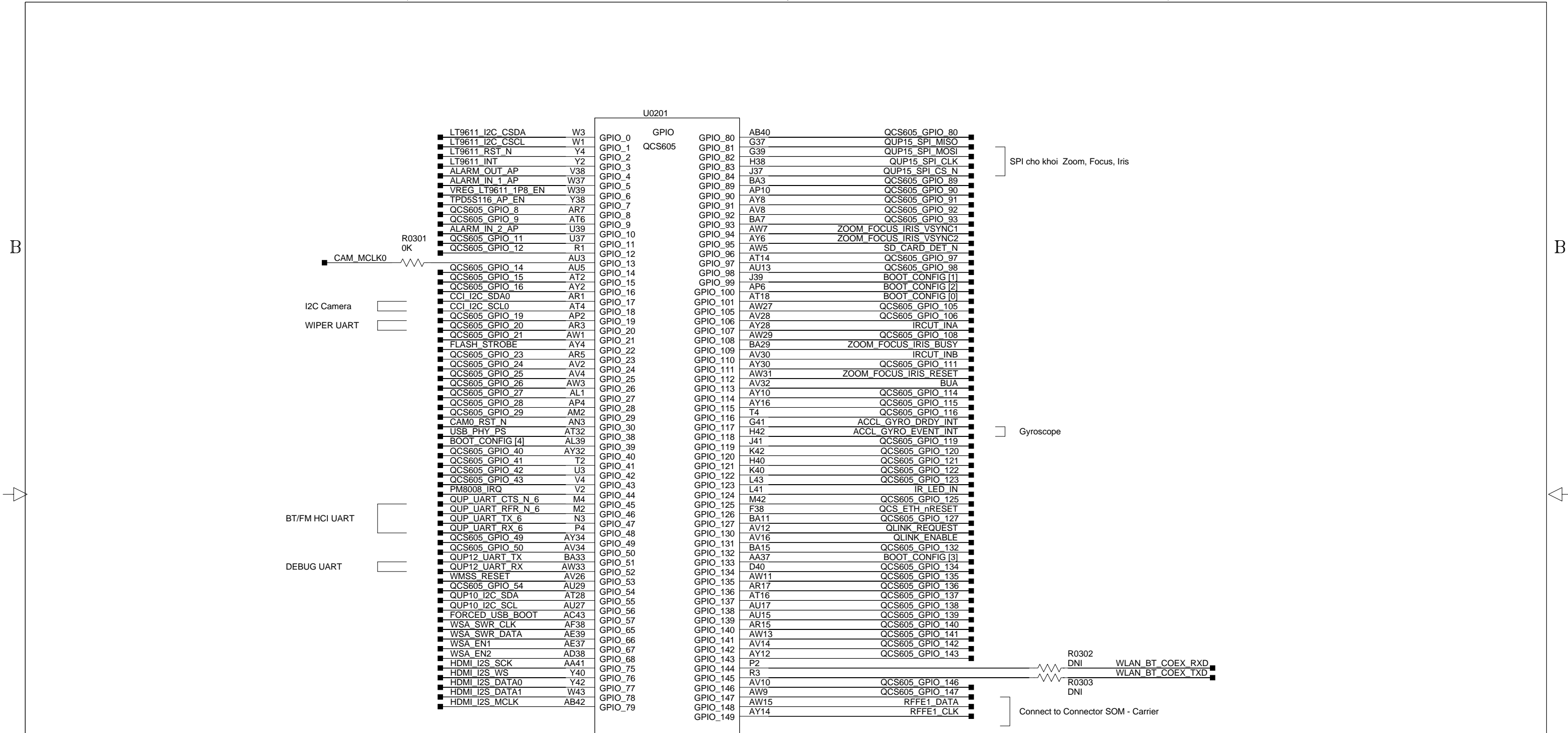
B

B



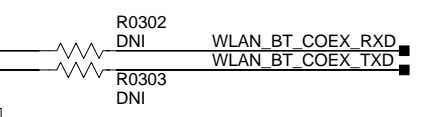
A

A



SPI cho khoi Zoom, Focus, Iris

Gyroscope



Connect to Connector SOM - Carrier

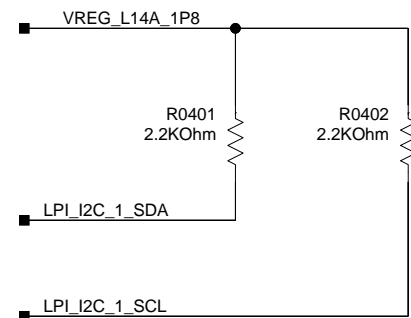
Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 03 QCS605 GPIOs		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:36	

U0201

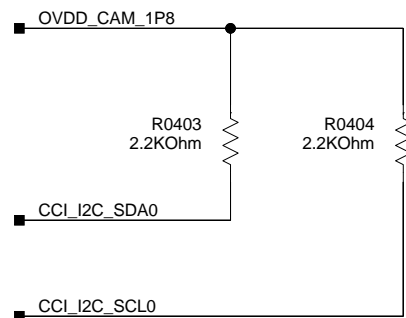
SSC
QCS605

Humidity and Temperature	■	LPI_I2C_1_SDA	AH42	LPI_GPIO_0
	■	LPI_I2C_1_SCL	AG41	LPI_GPIO_1
Gyroscope	■	LPI_SPI_1_MISO_SNSR	AK40	LPI_GPIO_2
	■	LPI_SPI_1_MOSI_SNSR	AH40	LPI_GPIO_3
	■	LPI_SPI_1_CLK_SNSR	AJ41	LPI_GPIO_4
	■	LPI_SPI_1_CS0_N_SNSR	AK42	LPI_GPIO_5
	■	LPI_GPIO_6	AL43	LPI_GPIO_6
	■	LPI_GPIO_7	AG43	LPI_GPIO_7
	■	LPI_GPIO_8	AD40	LPI_GPIO_8
	■	LPI_GPIO_9	AE41	LPI_GPIO_9
	■	LPI_GPIO_10	AF42	LPI_GPIO_10
	■	LPI_GPIO_11	AF40	LPI_GPIO_11
SENSOR UART (BLE)	■	SSC_UART1_TX	AC41	LPI_GPIO_12
	■	SSC_UART1_RX	AD42	LPI_GPIO_13
	■	LPI_GPIO_14	AB38	LPI_GPIO_14
	■	LPI_GPIO_15	AA39	LPI_GPIO_15
	■	LPI_GPIO_16	AC39	LPI_GPIO_16
	■	LPI_GPIO_17	AC37	LPI_GPIO_17
PDM/SLIMBUS-AUDIO	■	LPI_CDC_PDM_CLK	AP42	LPI_GPIO_18
	■	LPI_CDC_PDM_SYNC	AR41	LPI_GPIO_19
	■	LPI_CDC_PDM_TX	AN41	LPI_GPIO_20
	■	LPI_CDC_PDM_RX0	AP40	LPI_GPIO_21
	■	LPI_CDC_PDM_RX0_DRE	AM42	LPI_GPIO_22
	■	LPI_CDC_PDM_RX1	AL41	LPI_GPIO_23
	■	LPI_CDC_PDM_RX1_DRE	AM40	LPI_GPIO_24
	■	LPI_CDC_PDM_RX2	AT40	LPI_GPIO_25
	■	SDM_DMIC_CLK1	AG39	LPI_GPIO_26
	■	SDM_DMIC_DATA1	AK38	LPI_GPIO_27
BT/FM SLIMBUS	■	SDM_DMIC_CLK2	AJ39	LPI_GPIO_28
	■	SDM_DMIC_DATA2	AH38	LPI_GPIO_29
	■	LPI_QCA_SB_DATA	AP38	LPI_GPIO_30
	■	LPI_QCA_SB_CLK	AN39	LPI_GPIO_31

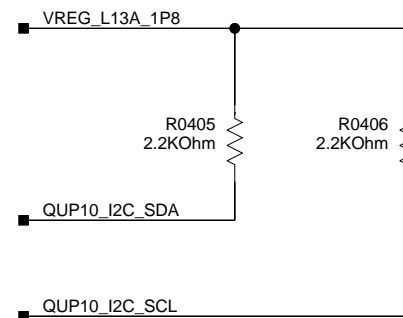
Humidity and Temperature I2C Address: 0x70



Camera



Power



Confidential			
K01_SOM			
Designer:	Drawing Title: 04 QCS605 LPI GPIOs		
Drawn by:	Page Title: 04 QCS605 LPI GPIOs		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

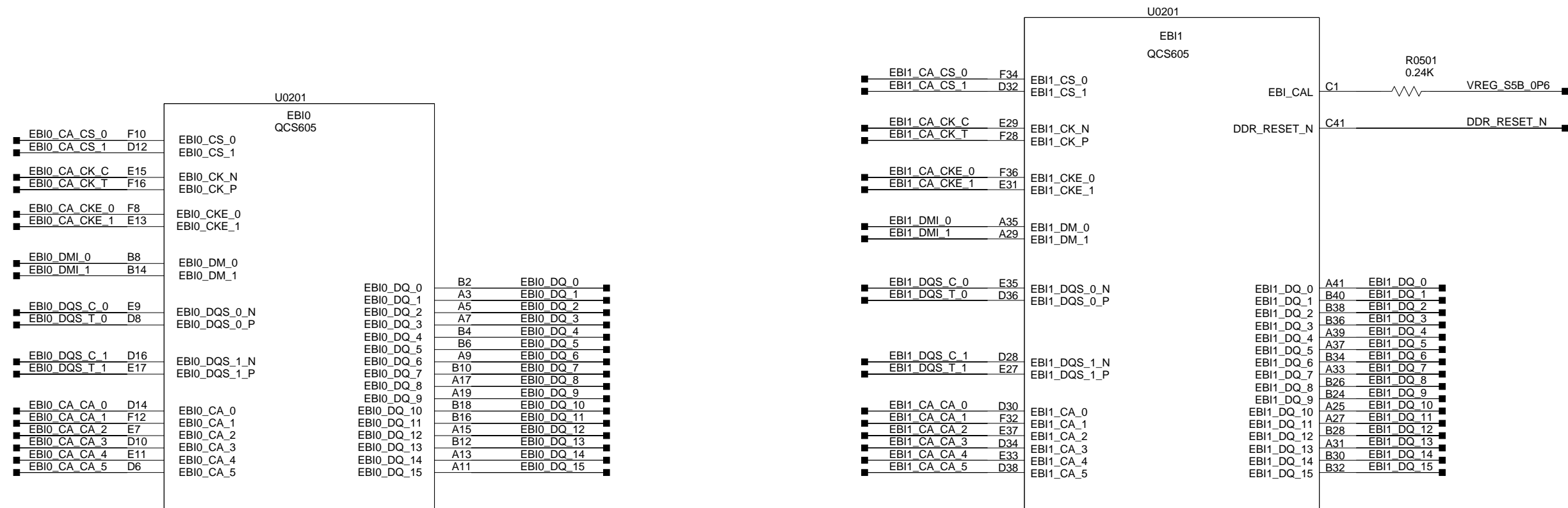
3

2

1

B

B



A

A

Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 05 QCS605 EBIO/1		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

4

3

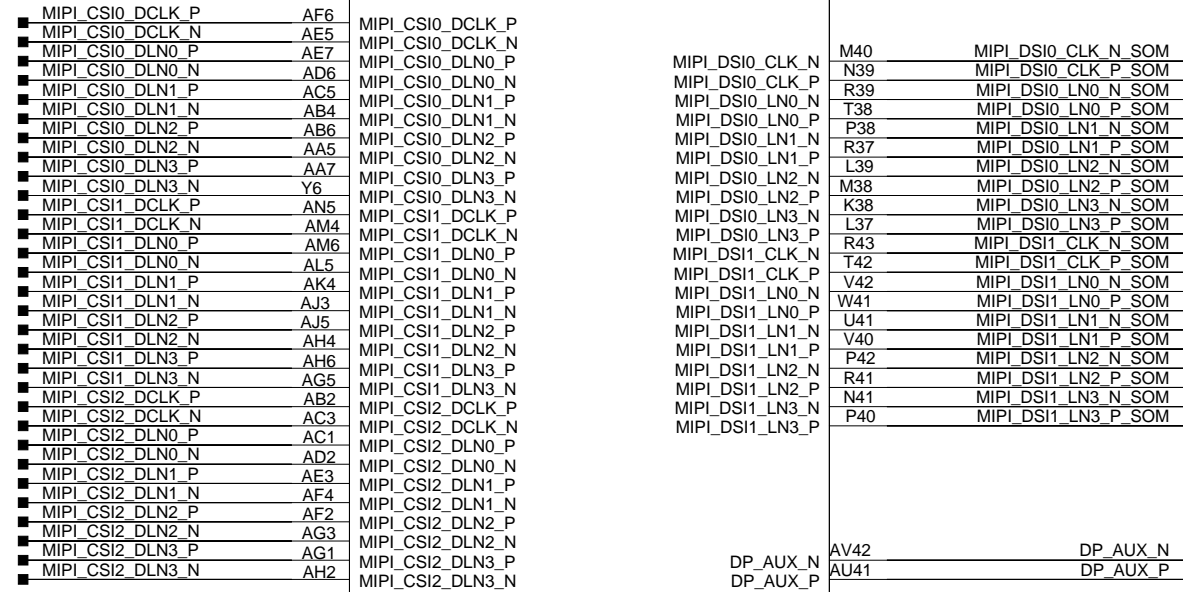
2

1

B

B

U0201
MIPI
QCS605



A

A

A

A

4

3

2

1

Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 06 QCS605 MIPI-CSI/DSI		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

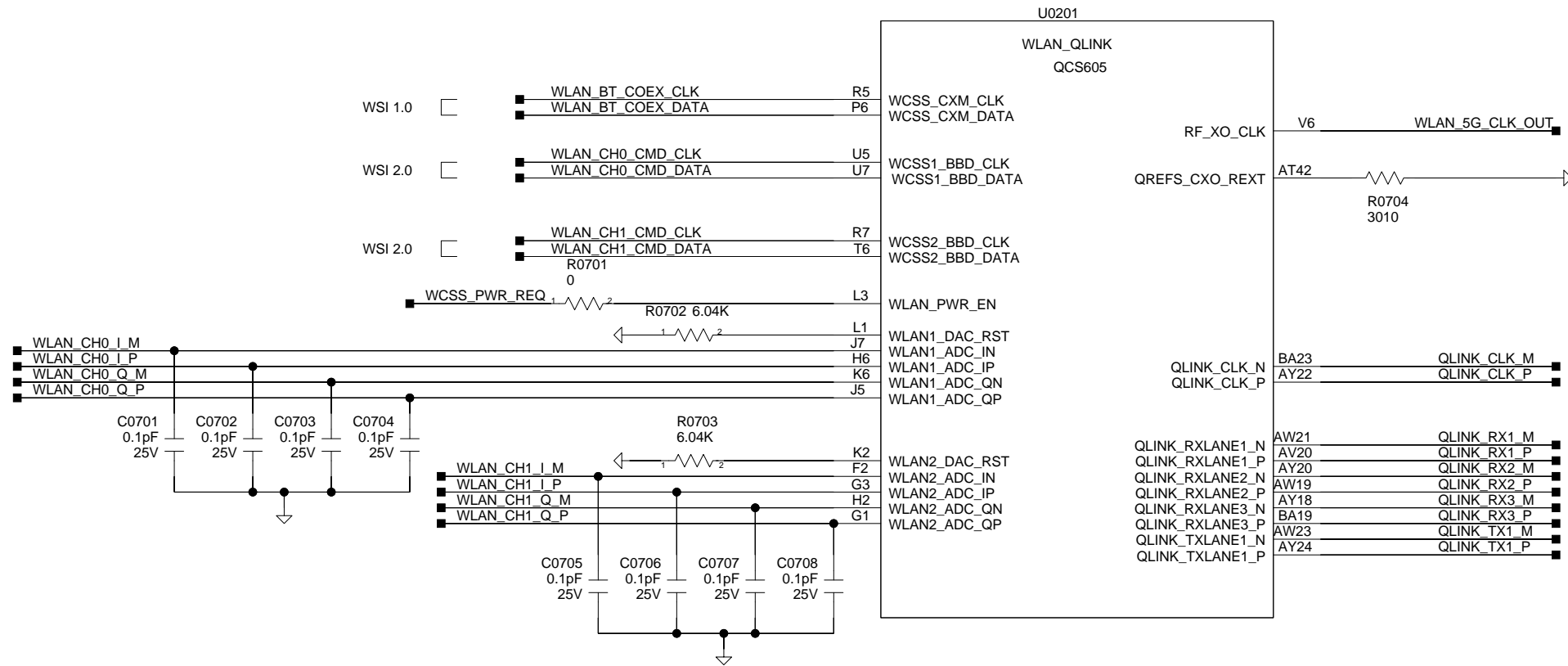
1

B

B

A

A



Connect to Connector SOM - Carrier

Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 07 QCS605 WCSS/RF		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

4

3

2

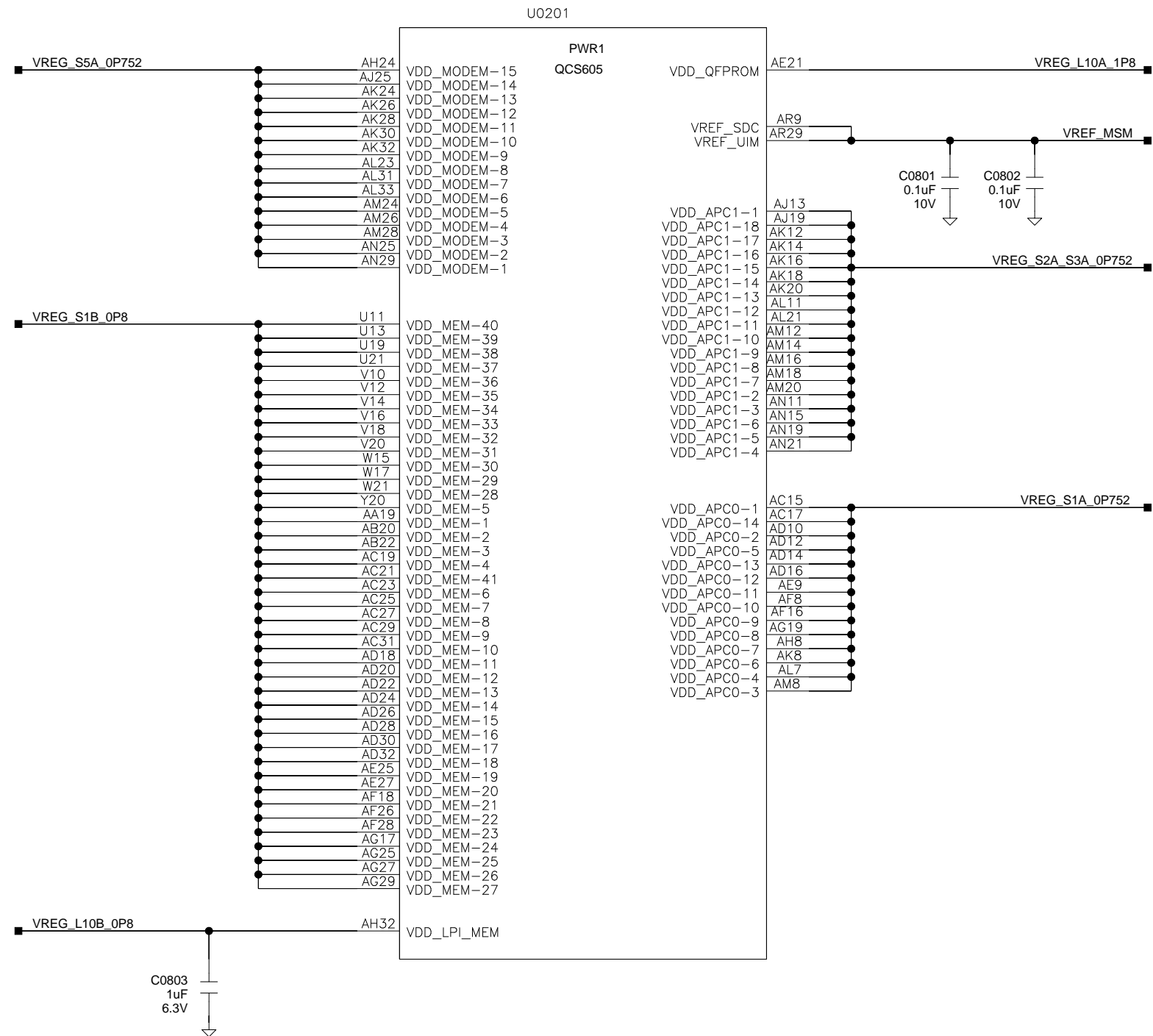
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 08 QCS605 PWR_1		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

4

3

2

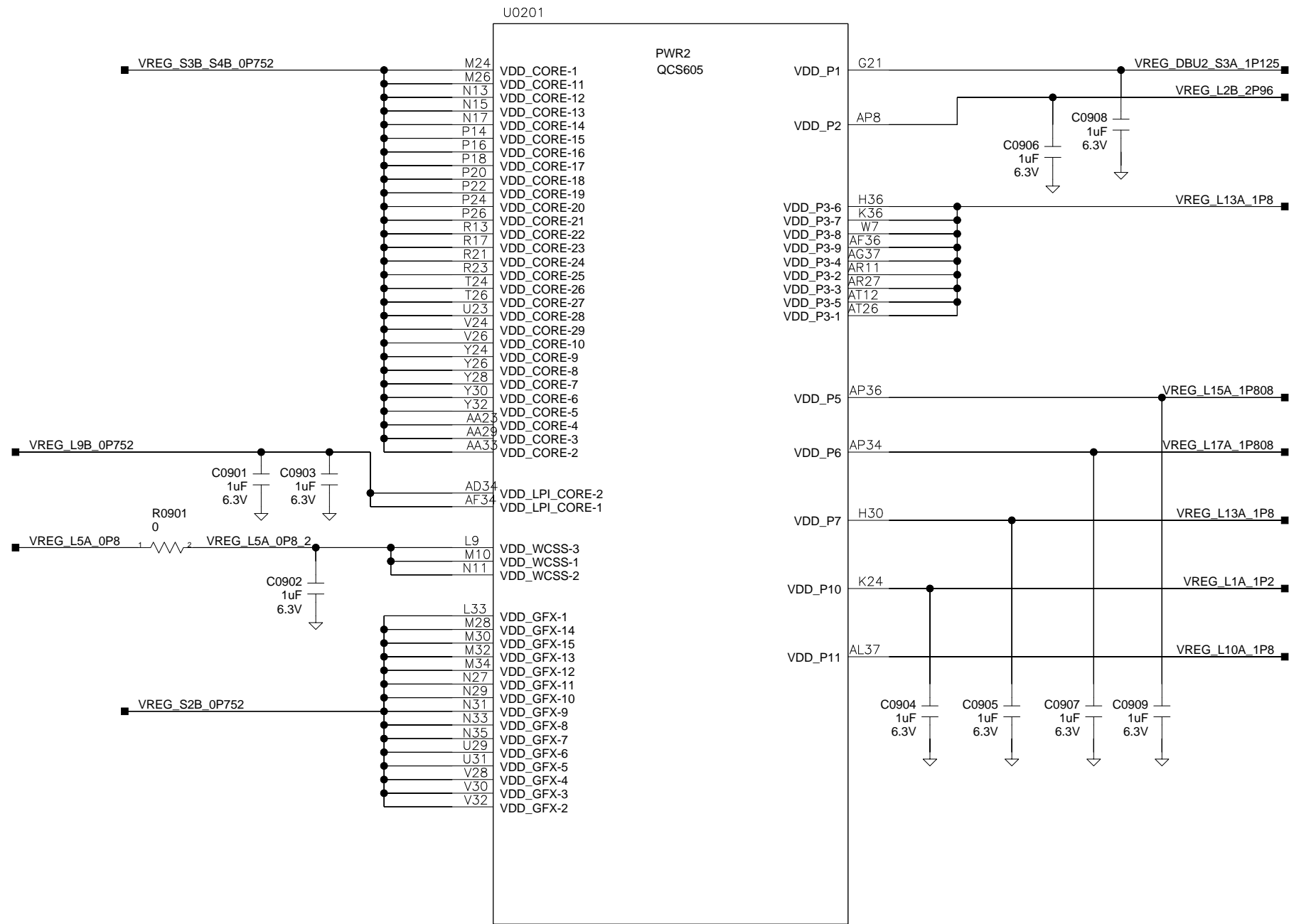
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 09 QCS605 PWR_2		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

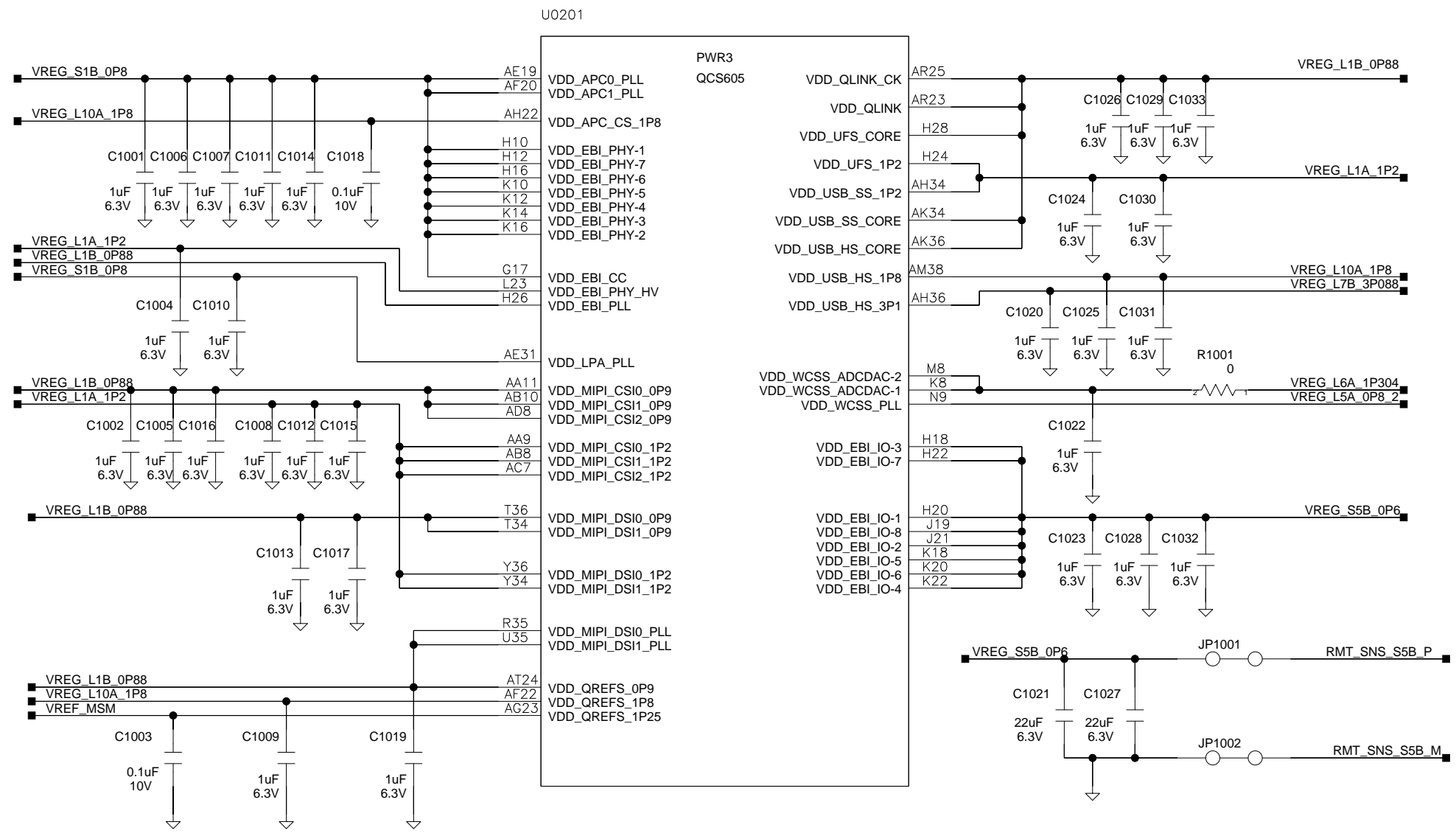


B

B

A

A



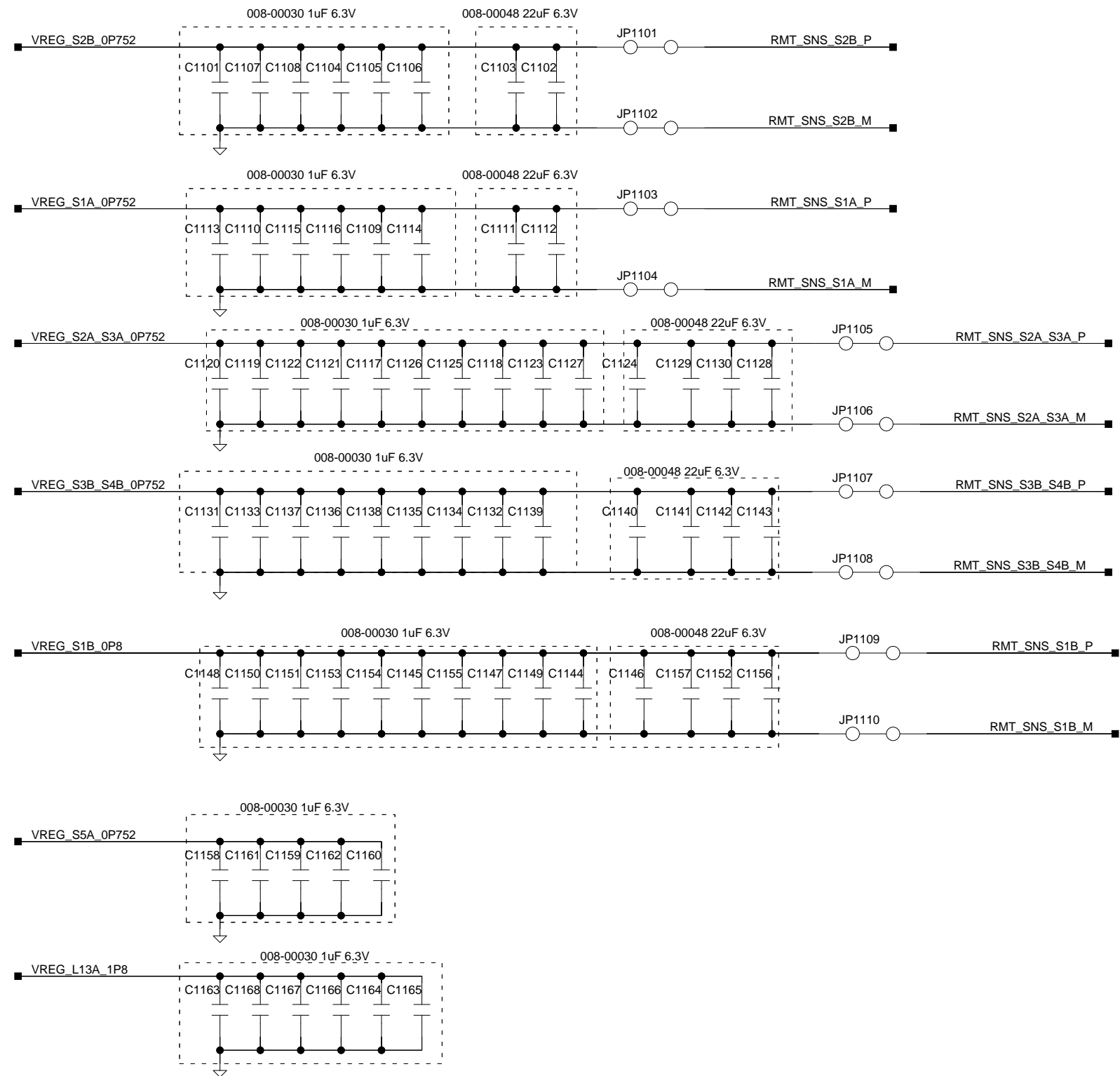
Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 10 QCS605 PWR_3		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1



B

B

A

A

4

3

2

1

Confidential			
K01_SOM			
Designer:	Drawing Title: 11 QCS605 DECAPS		
Drawn by:	Page Title: 11 QCS605 DECAPS		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

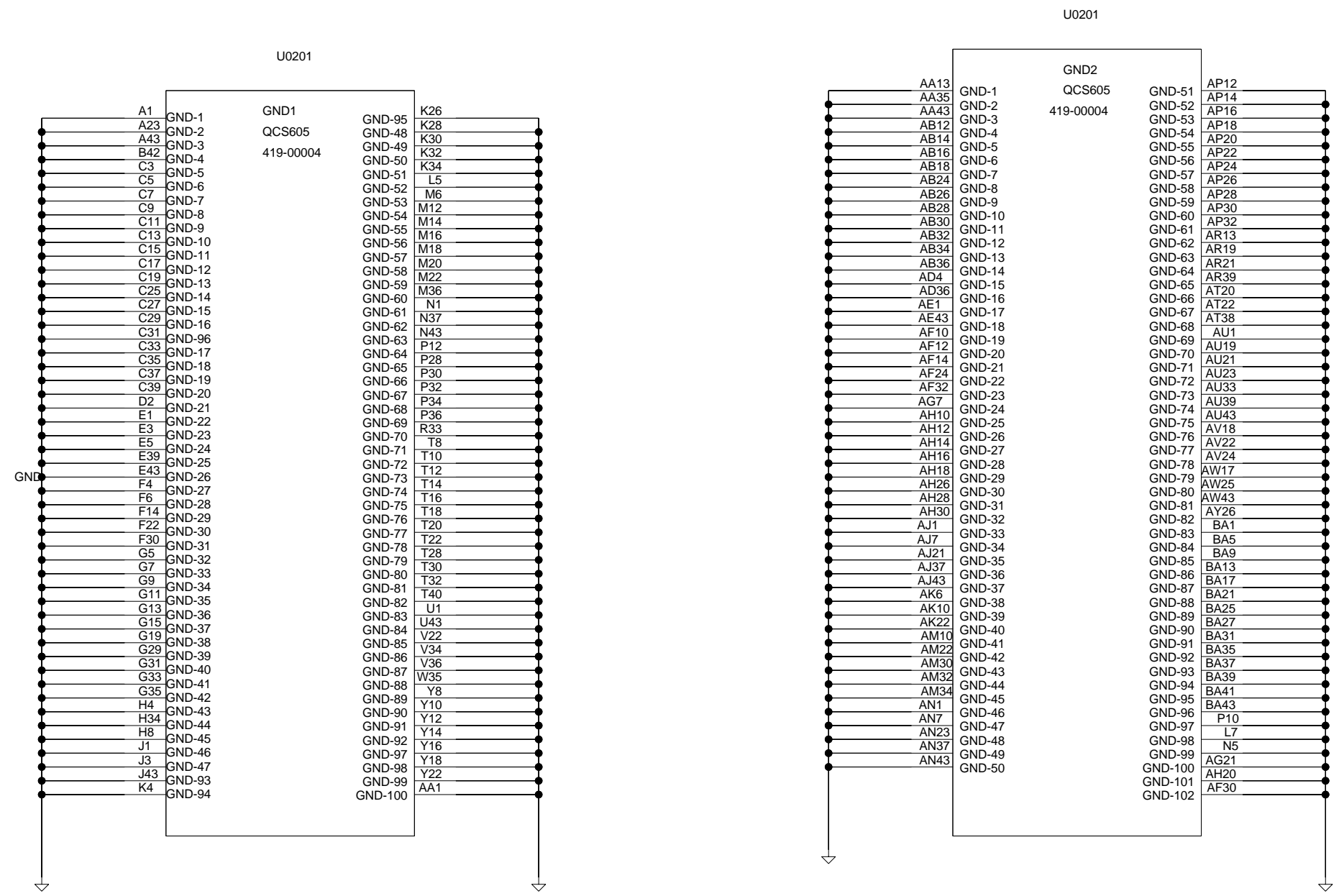
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: 12 QCS605 GND		
Drawn by:	Page Title: 12 QCS605 GND		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

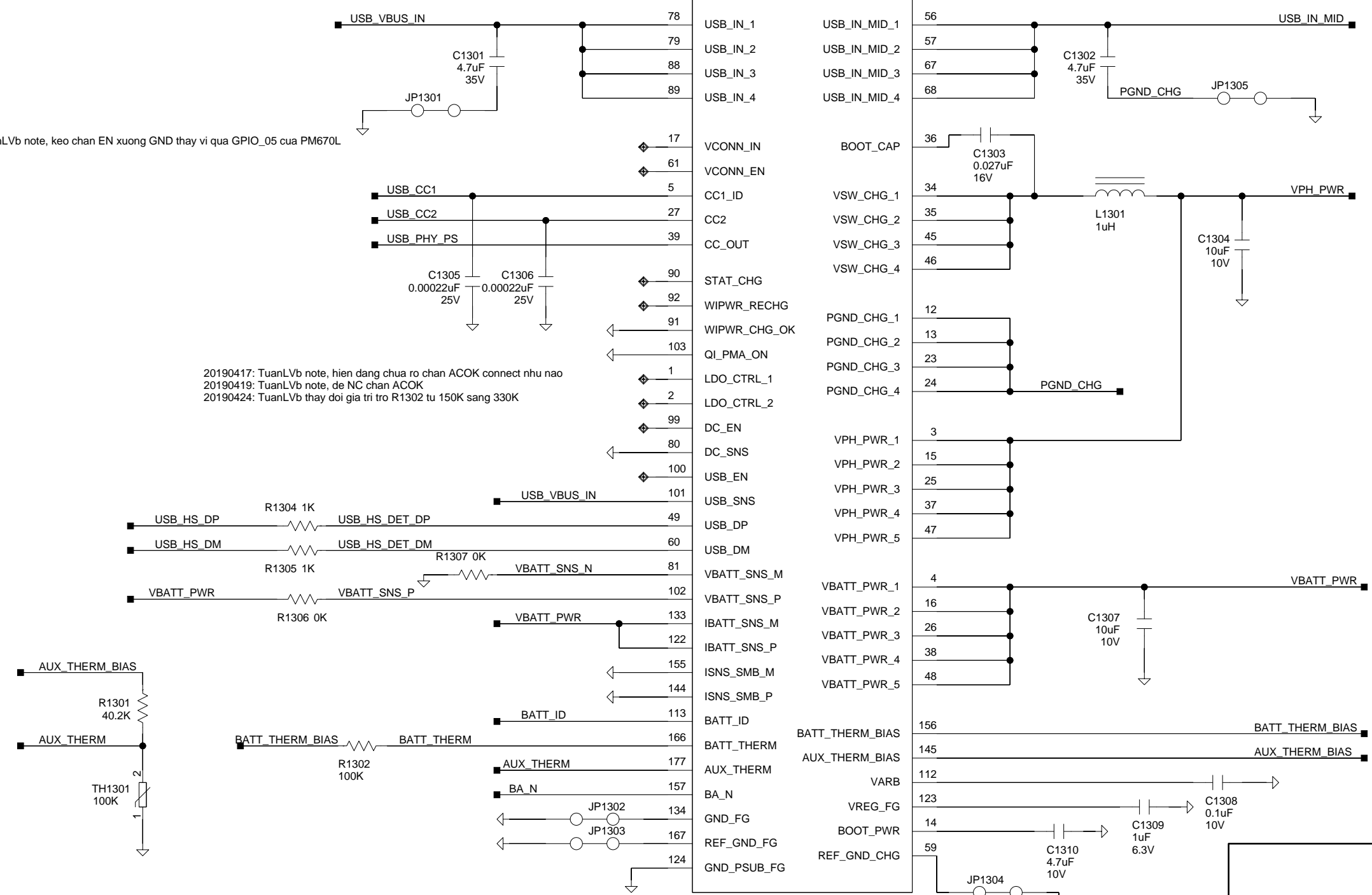
1

U1301

PM670
CHARGER-FG

20190419: TuanLVb note, keo chan EN xuong GND thay vi qua GPIO_05 cua PM670L

20190417: TuanLVb note, hien dang chua ro chan ACOK connect nhu nao
20190419: TuanLVb note, de NC chan ACOK
20190424: TuanLVb thay doi gia tri tro R1302 tu 150K sang 330K



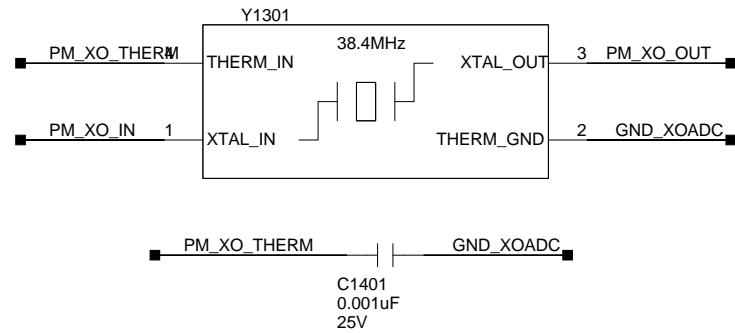
Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 13 PM670 CHARGER	
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

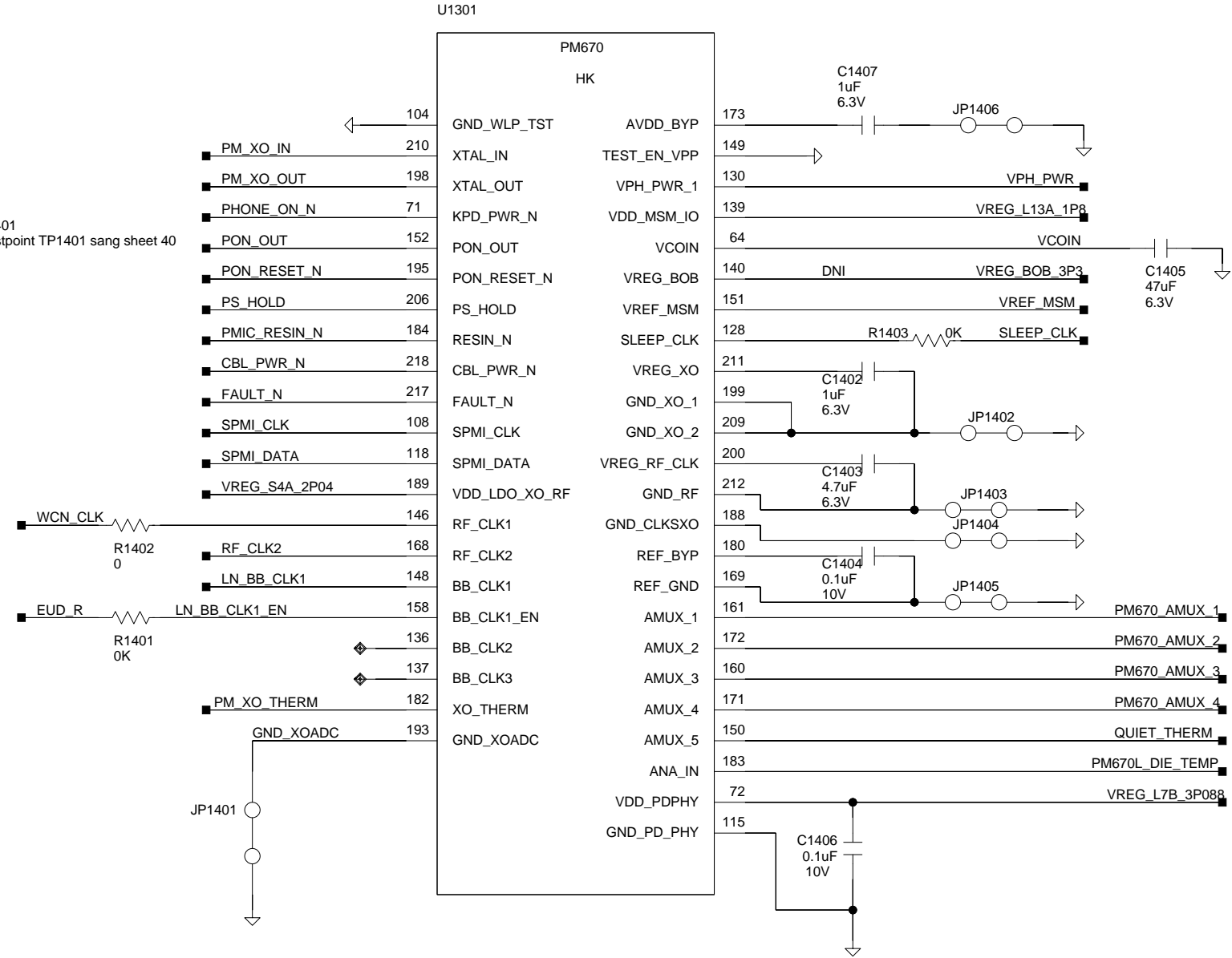
1



14042019: TruongNVb add testpoint TP1401
 20190425: TuanLVb note: Da chuyen testpoint TP1401 sang sheet 40

20190419: TuanLVb note, de testpoint chan KPD_PWR_N va CBL_PWR_N

20190417: TuanLVb note: Dang chua ro ket noi BB_CLK1_EN



20190425: TuanLVb note: Them tu chan VCOIN

Confidential			
K01_SOM			
Designer:	Drawing Title: 14 PM670 CONTROL/CLOCK		
Drawn by:	Page Title: 14 PM670 CONTROL/CLOCK		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

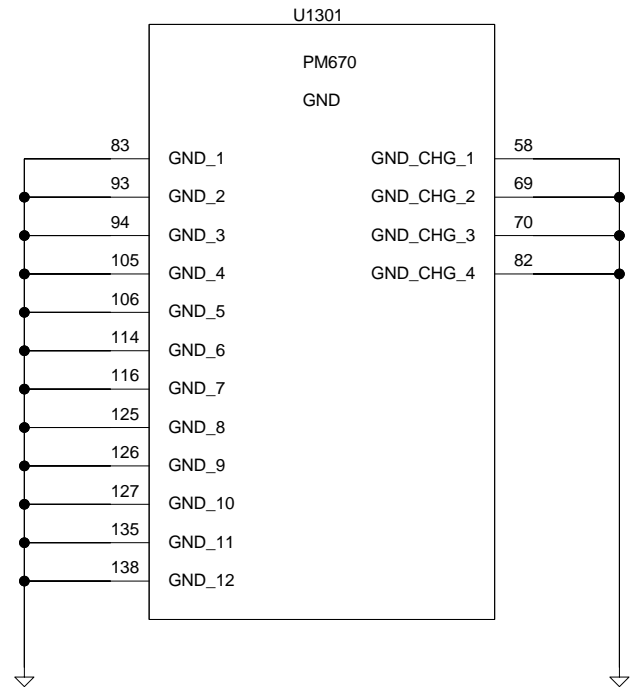
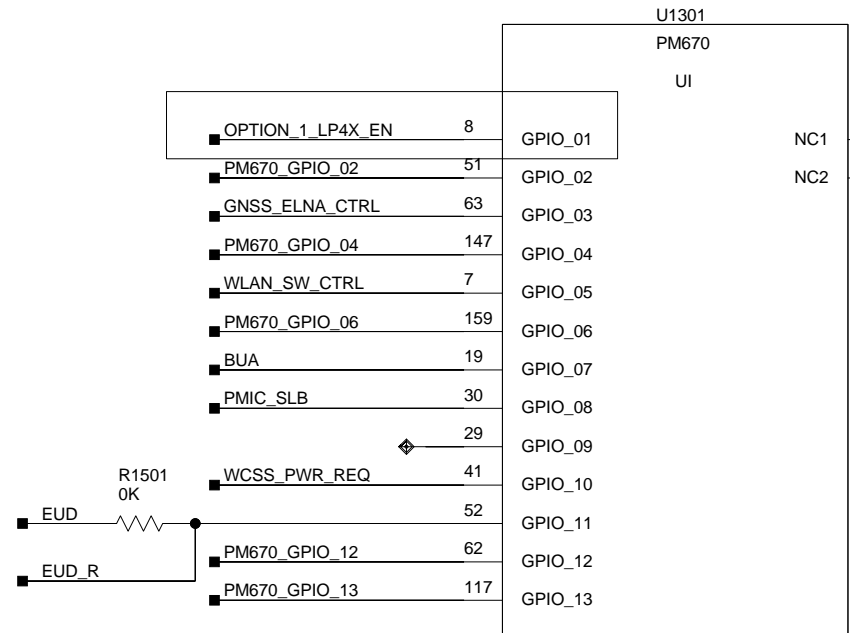
4

3

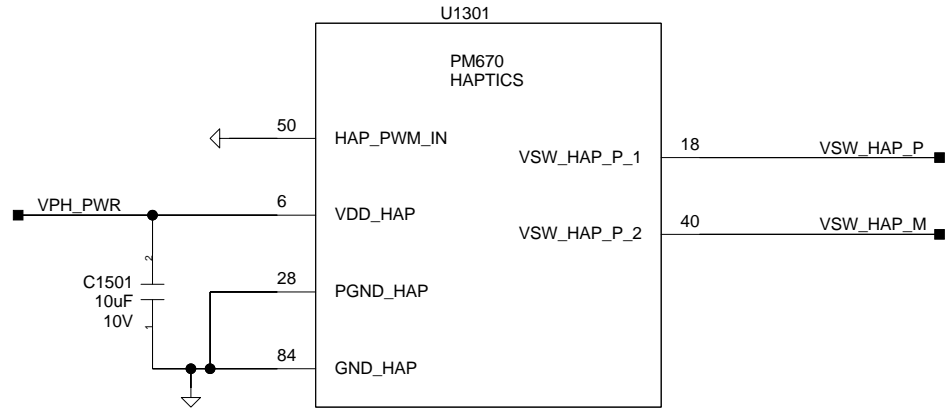
2

1

QuangTD them chan GPIO_3 de dieu khien active antenna GPS



20190419: TuanLVb note, not chan GPIO_09 xuong GND vi dung micro USB
 20210505: TuanLVb note, De NC chan GPIO_09 do su dung Type C



Confidential			
K01_SOM			
Designer:	Drawing Title: 15 PM670 GPIOs		
Drawn by:	Page Title: 15 PM670 GPIOs		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:35	

4

3

2

1

4

3

2

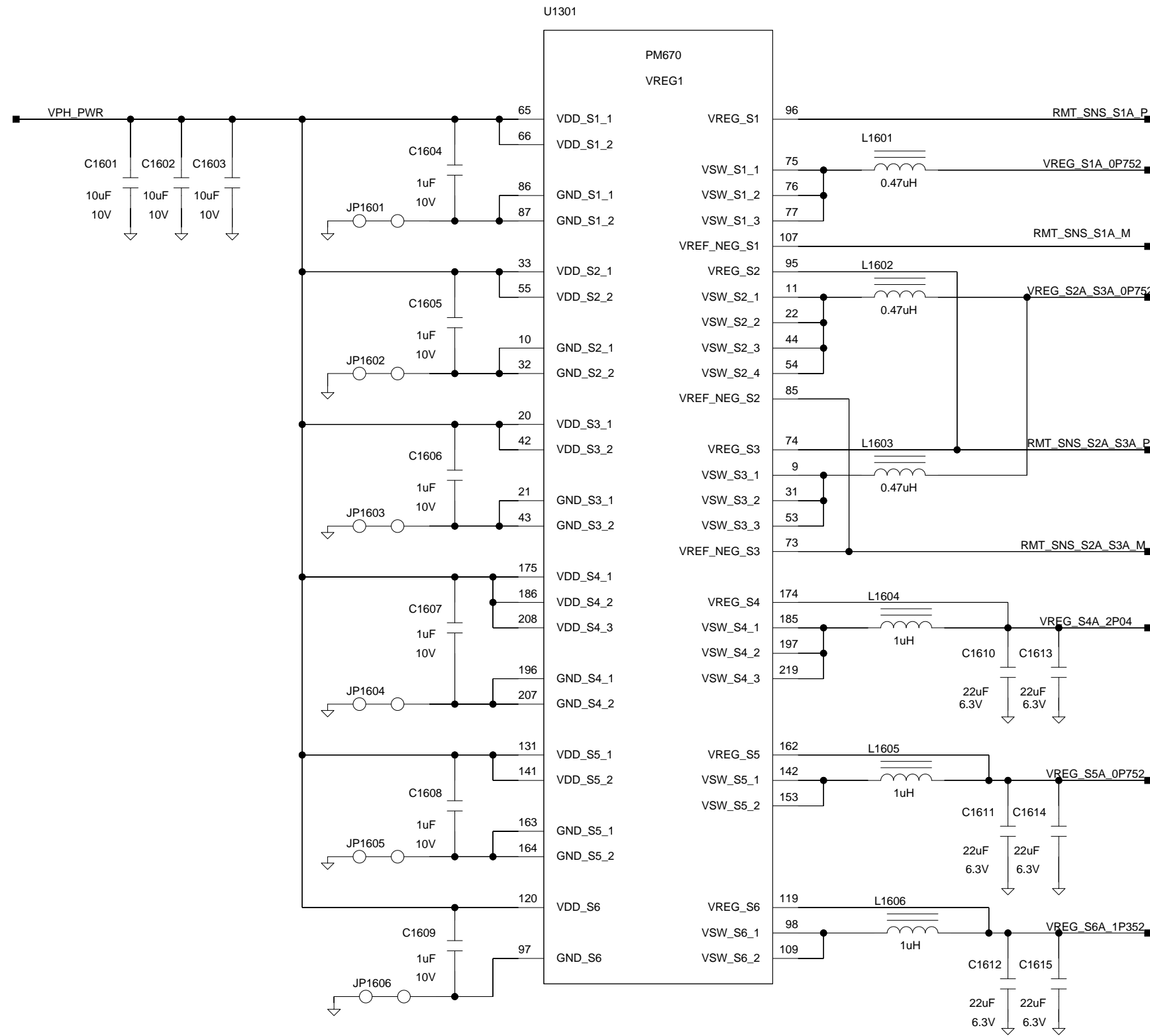
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: 16 PM670 SMPS		
Drawn by:	Page Title: 16 PM670 SMPS		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:19:43	

4

3

2

1

4

3

2

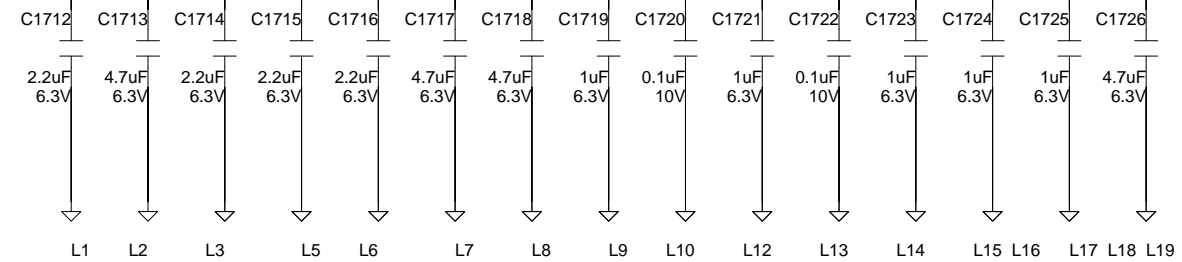
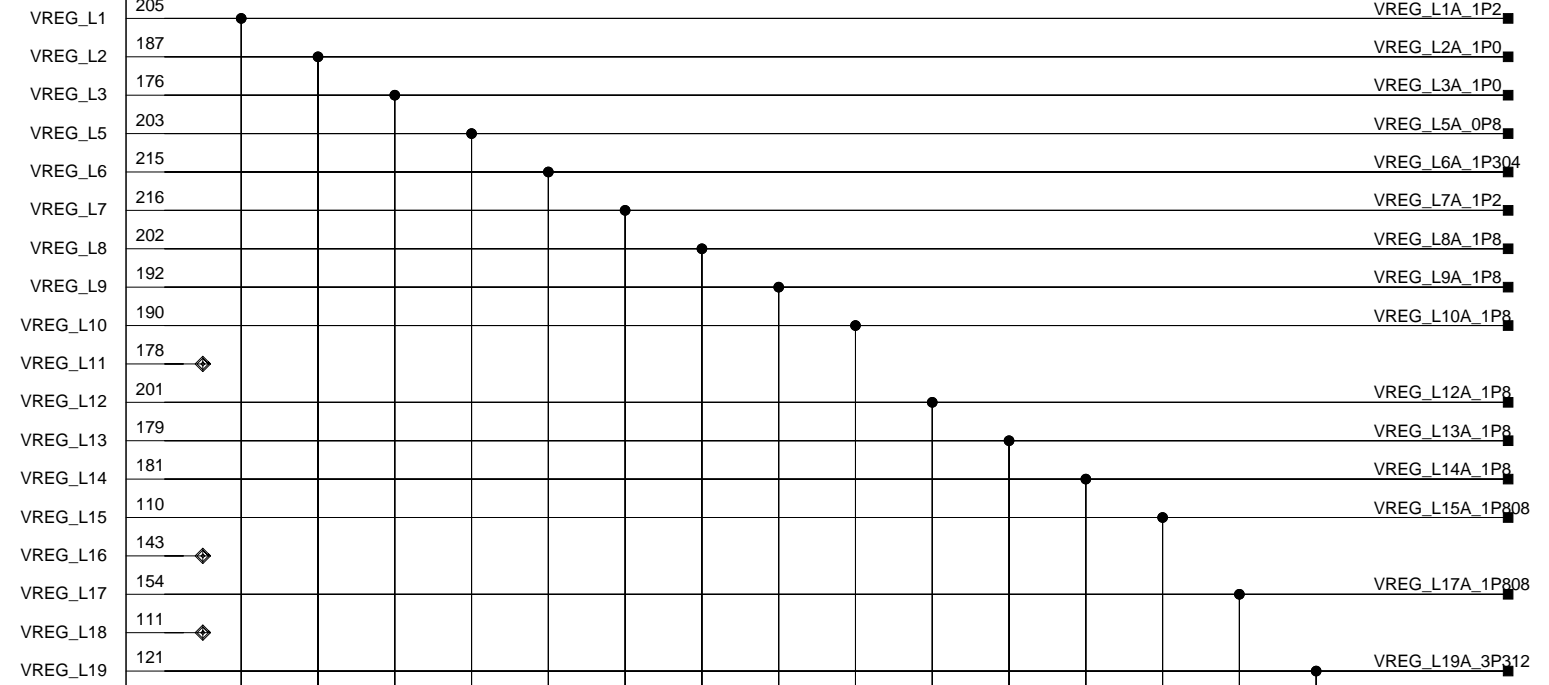
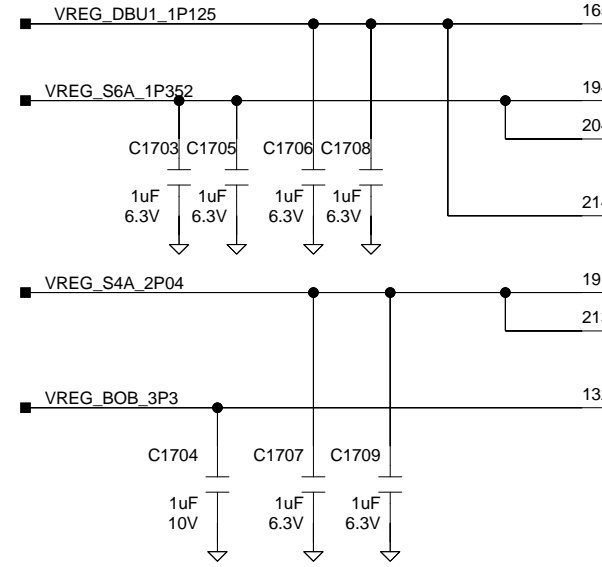
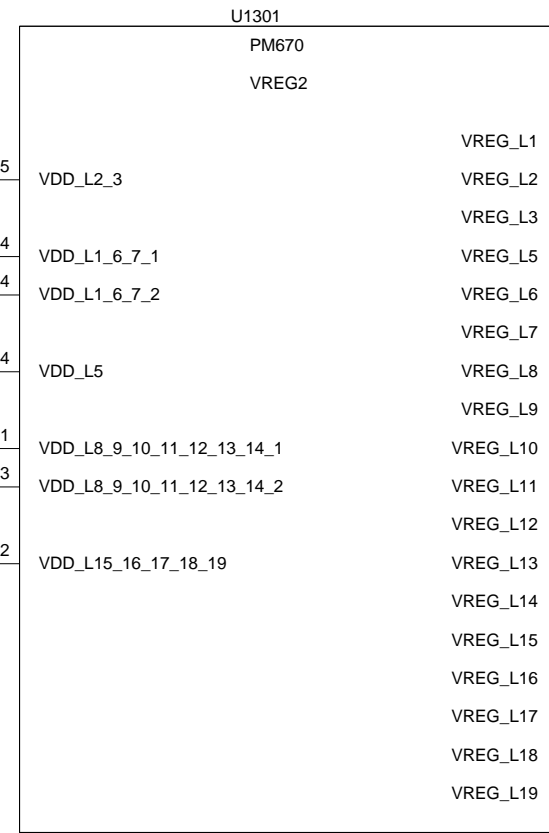
1

B

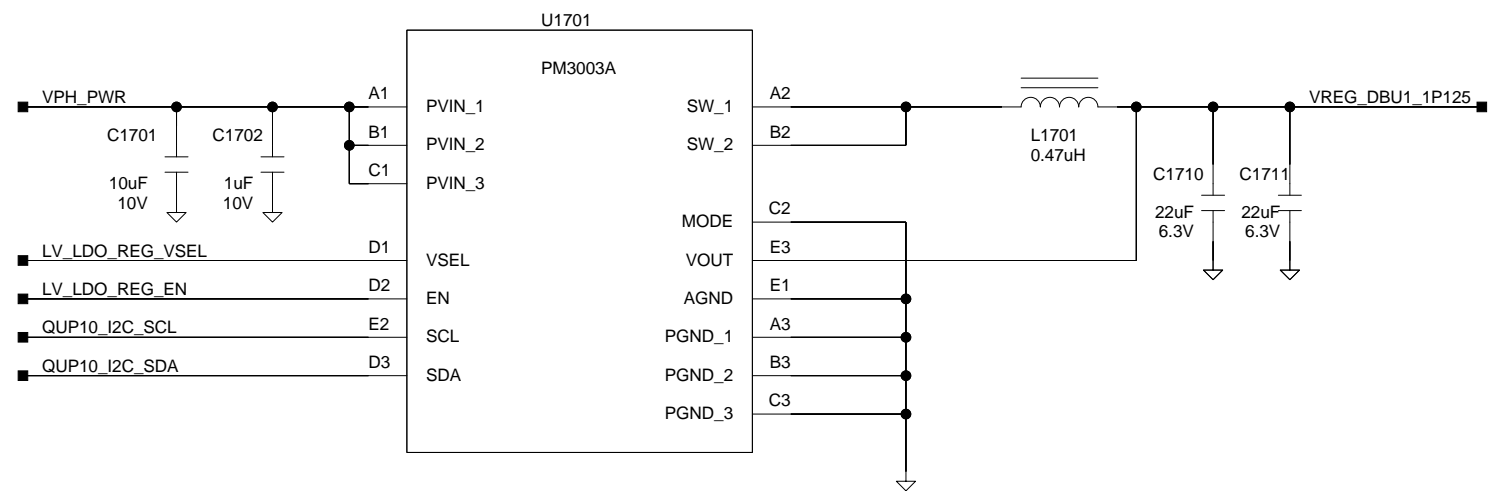
B

A

A



008-00024
008-00030
008-00037
008-00040



PM-3003A-4-15CWLNSP-TR-00-0-04
I2C Address: 0x61, 7-bit

Confidential			
K01_SOM			
Designer:	Drawing Title: 17 PM670 LDOs		
Drawn by:	Page Title: 17 PM670 LDOs		
Approved:	Size: B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:19:58	

4

3

2

1

A

4

3

2

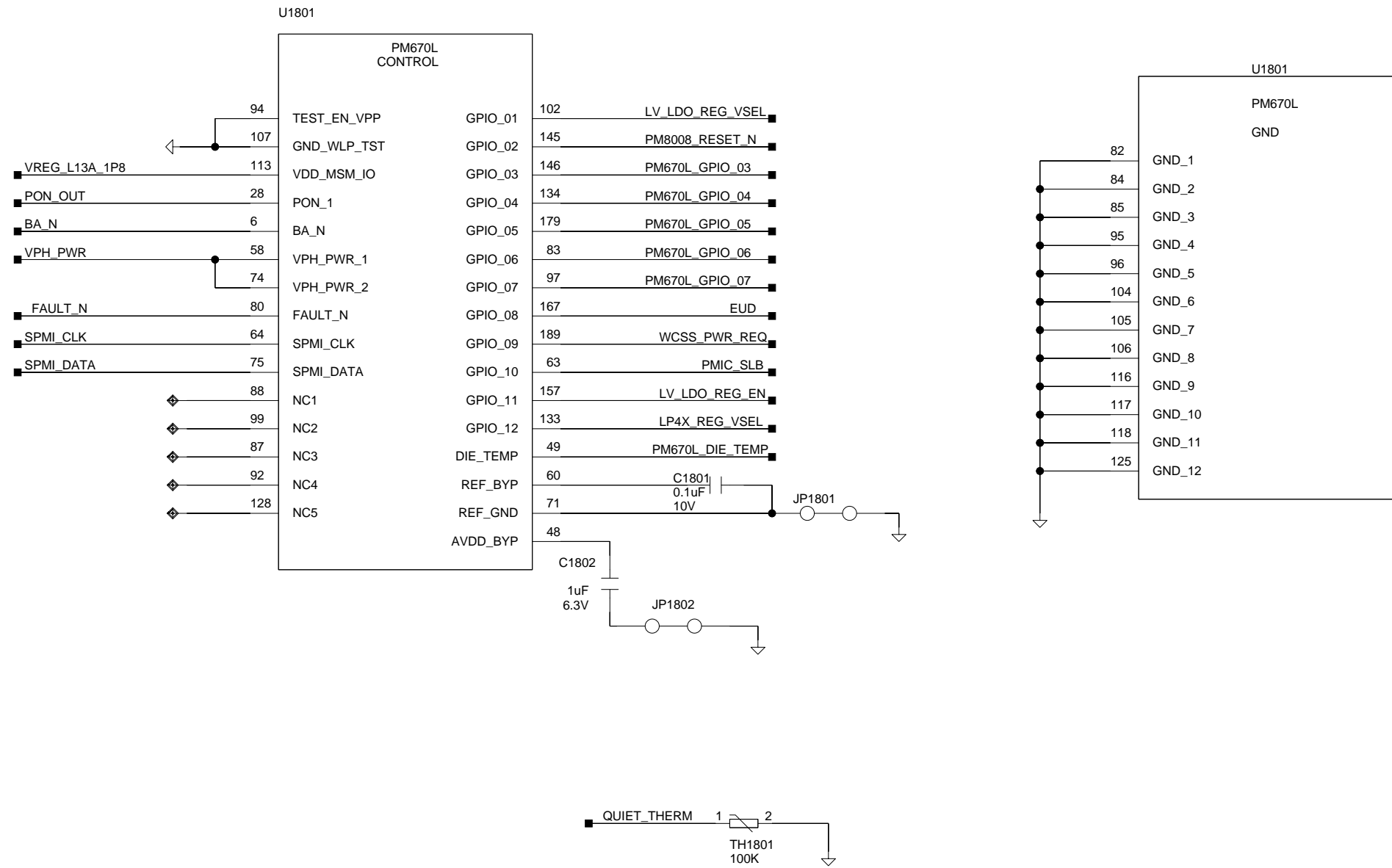
1

B

B

A

A



Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 18 PM670L CONTROL	
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:20:00	

4

3

2

1

4

3

2

1

B

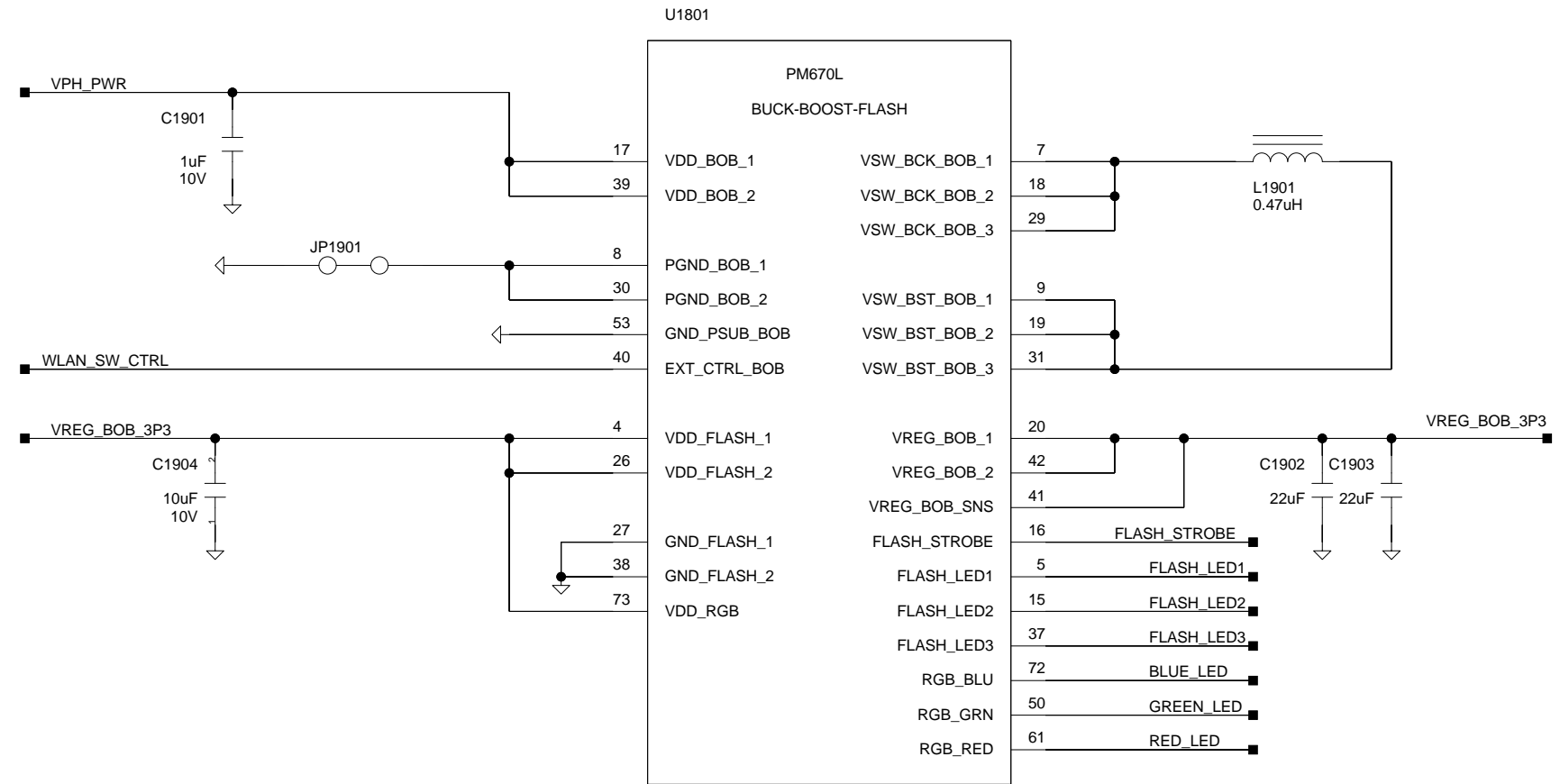
B

A

A

Note: VDD_FLASH not used, connect to VREG_BOB

Note: VDD_RGB not used, connect to VREG_BOB



Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 19 PM670L BOB-FLASH	
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:20:00	

4

3

2

1

4

3

2

1

B

B

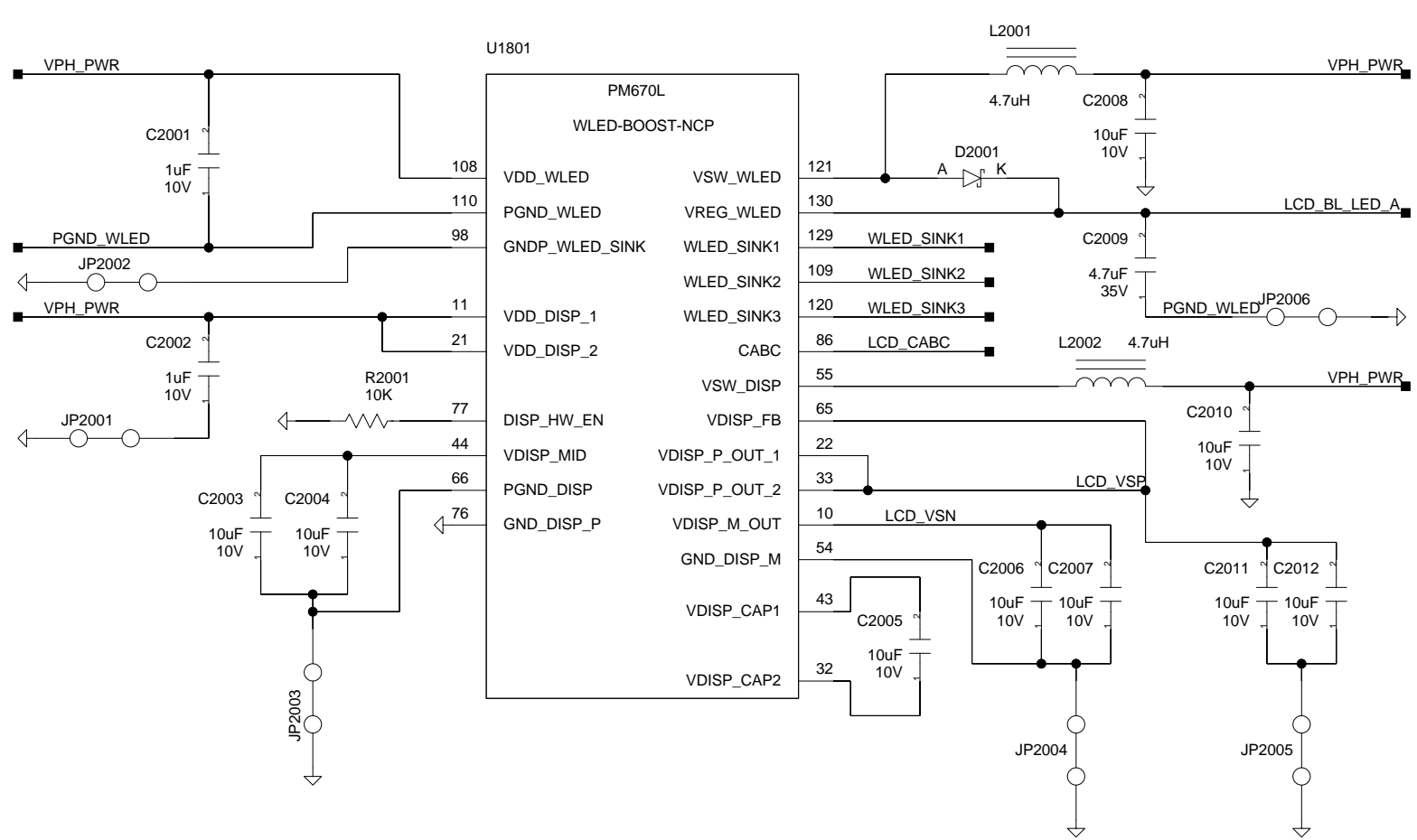
A

A

Note: VDD_WLED note used, connect to VPH_PWR

Note: VDD_DISP note used, connect to VPH_PWR

Note: VSW_DISP not used, can NC or connect to VPH_PWR
Note: VDISP_FB not used, can NC or connect to VDISP_P_OUT



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 20 PM670L WLED LAB/IBB		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 13/05/2021:08:35	

4

3

2

1

4

3

2

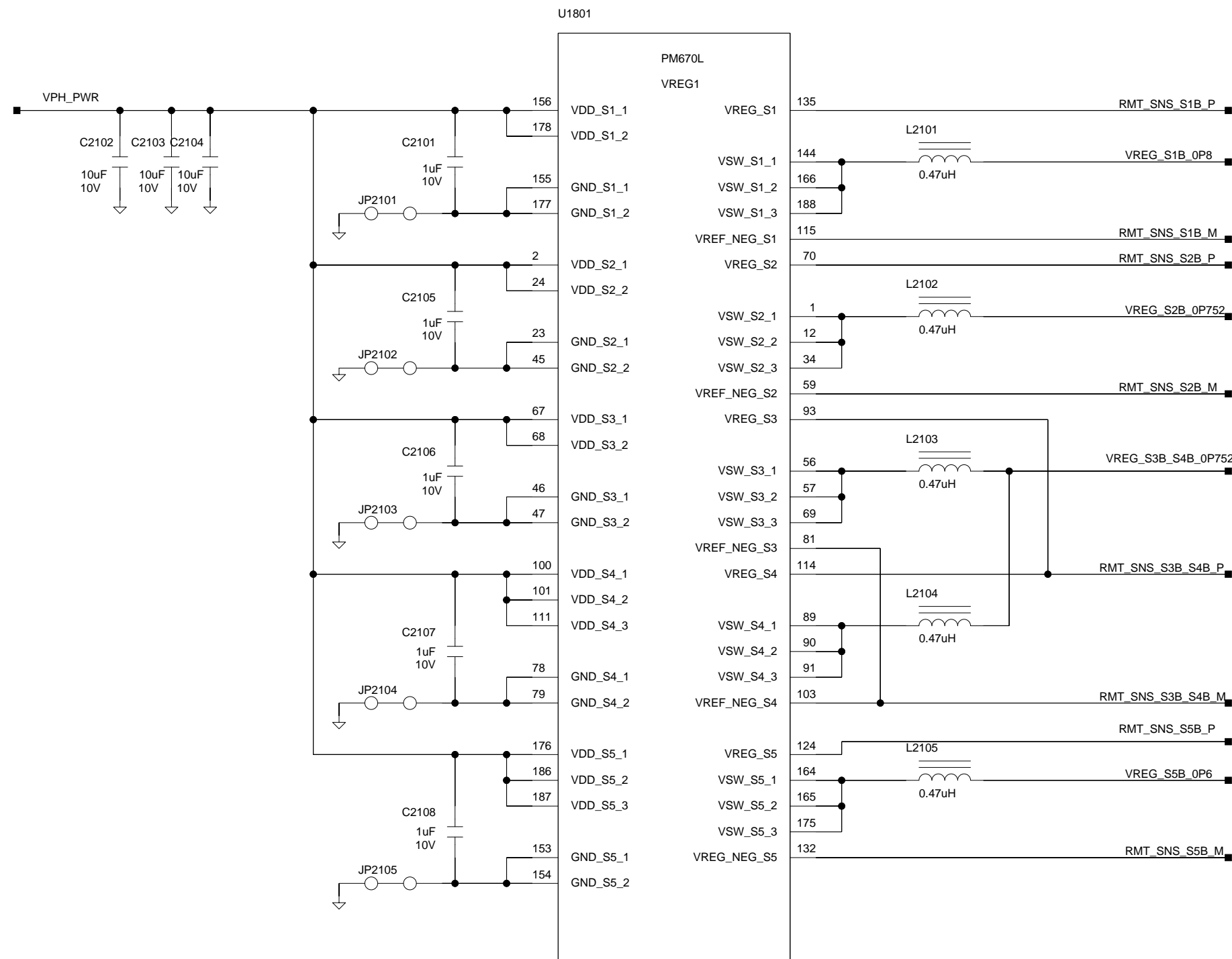
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 21 PM670L SMPS		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:34	

4

3

2

1

4

3

2

1

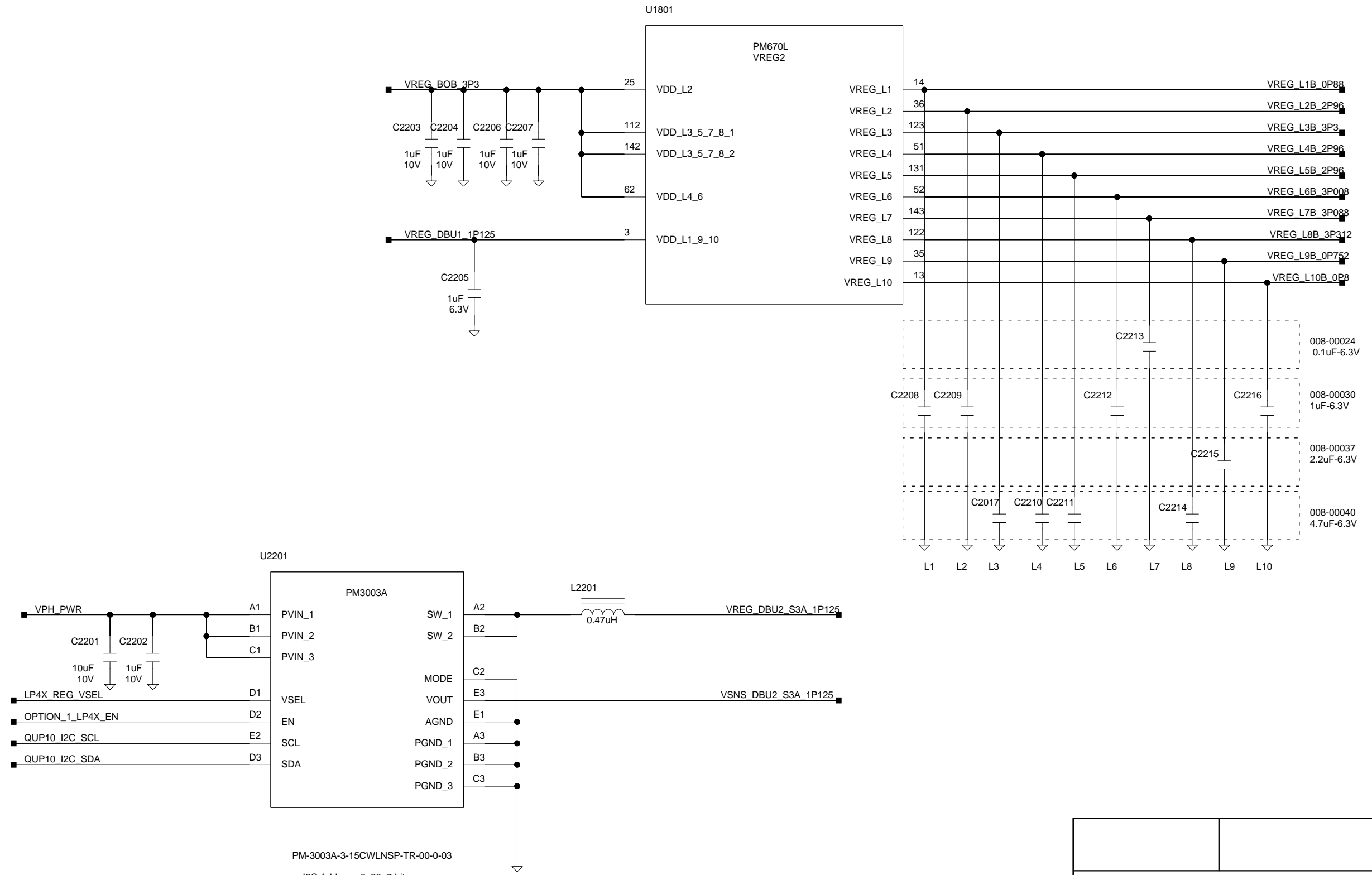
4

B

B

A

A



4

3

2

1

4

Confidential			
K01_SOM			
Designer:	Drawing Title: 22 PM670L LDO		
Drawn by:	Page Title: 22 PM670L LDO		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:16:34	

4

3

2

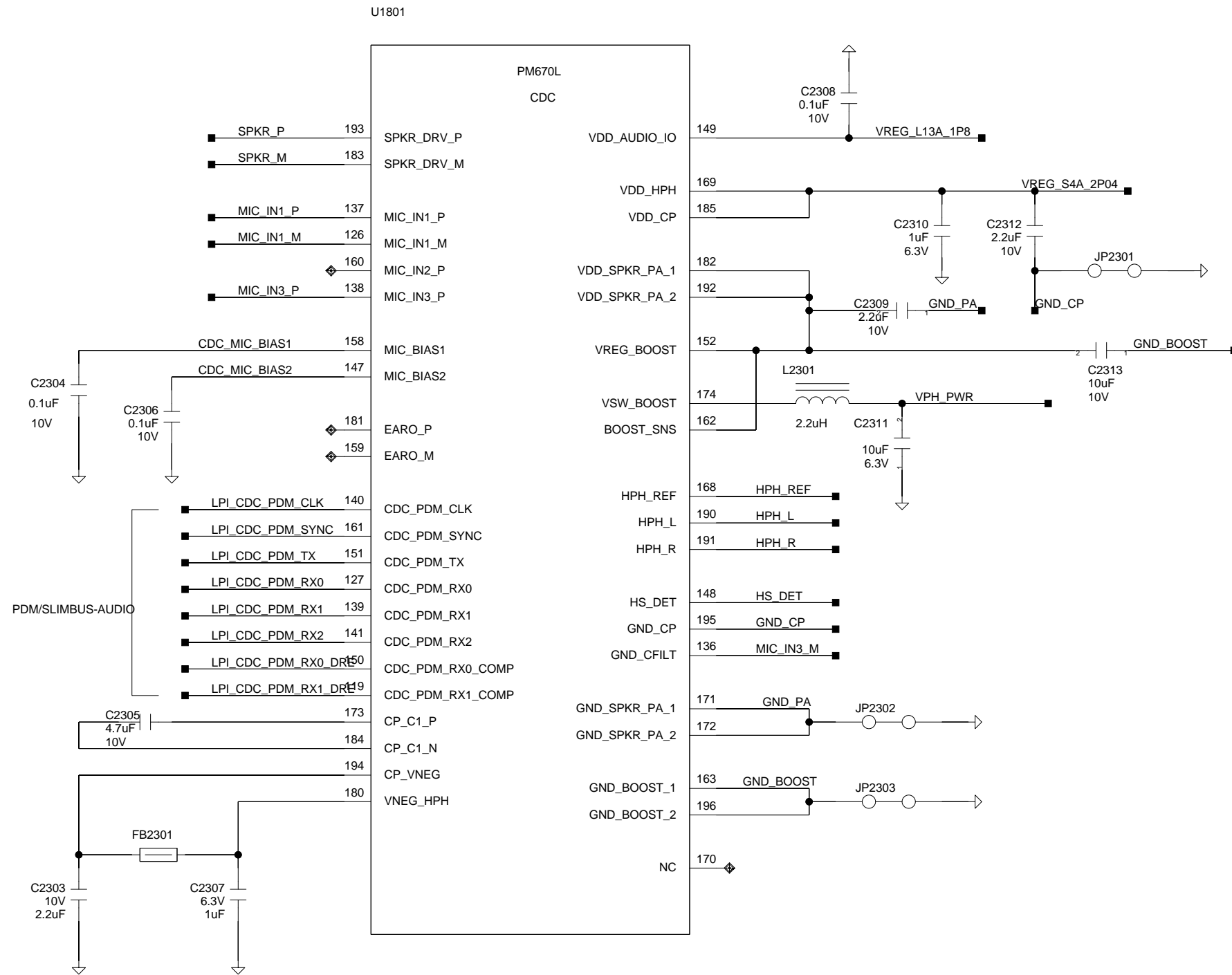
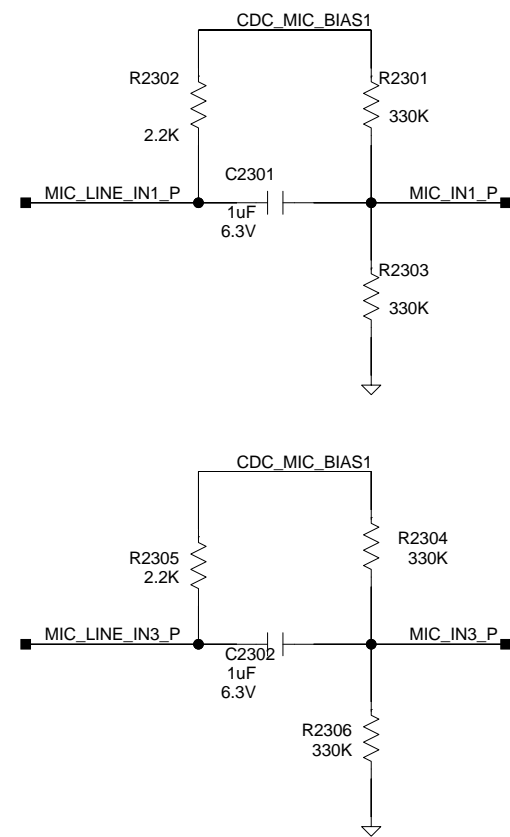
1

B

B

A

A



Confidential			
K01_SOM			
Designer:	Drawing Title:		
Drawn by:	Page Title:		
Approved:	Size	Document Number	Rev
	B		
Sheet	of 32	Date:	13/05/2021:08:58

4

3

2

1

4

3

2

1

1

B

B

A

A

A

A

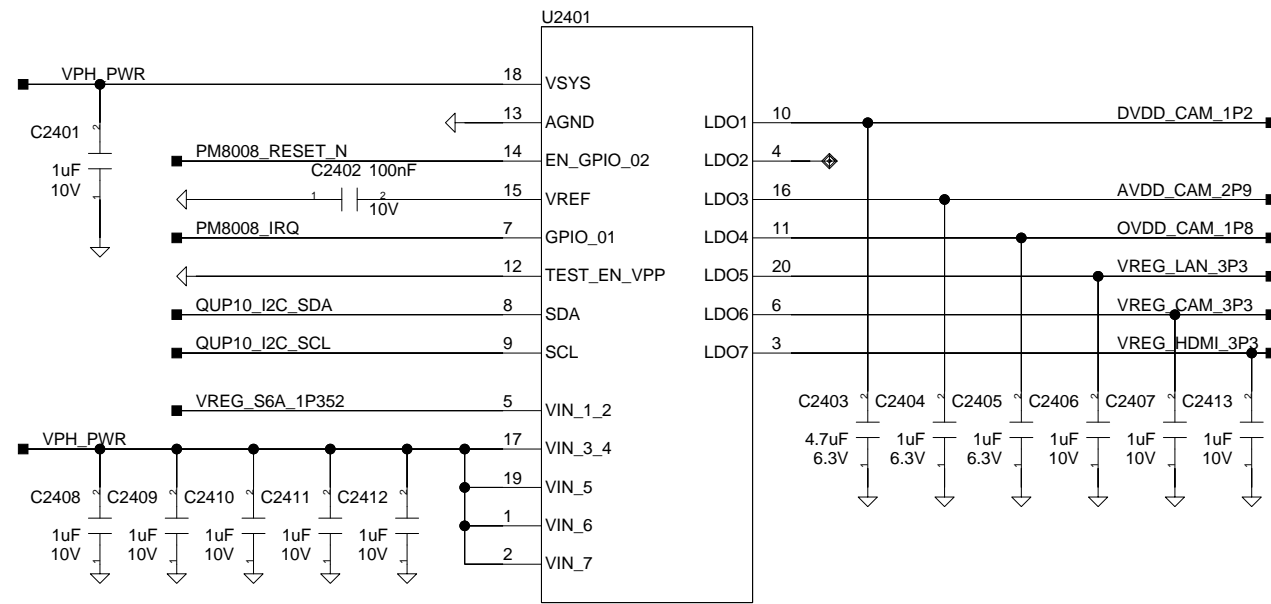
4

3

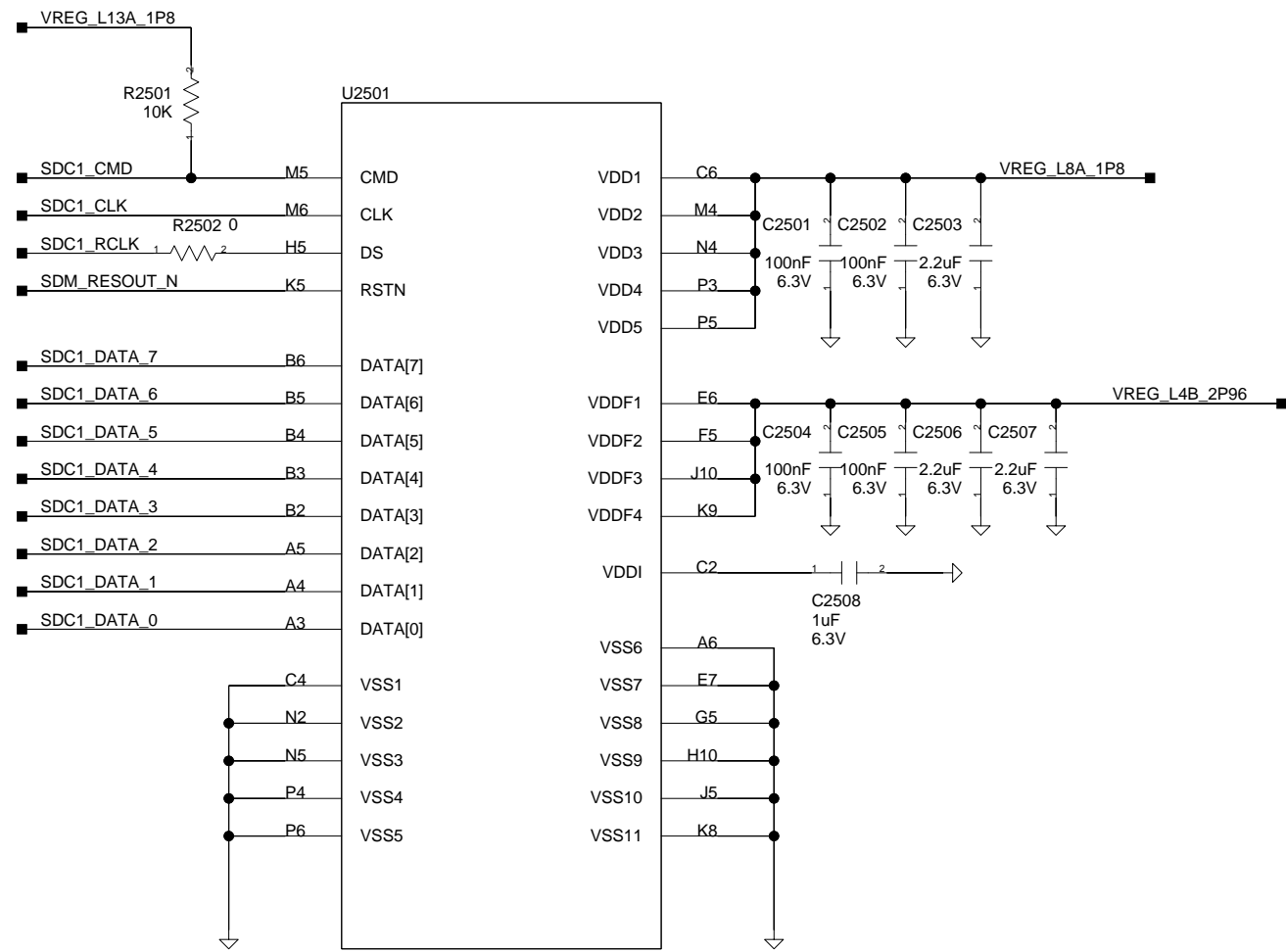
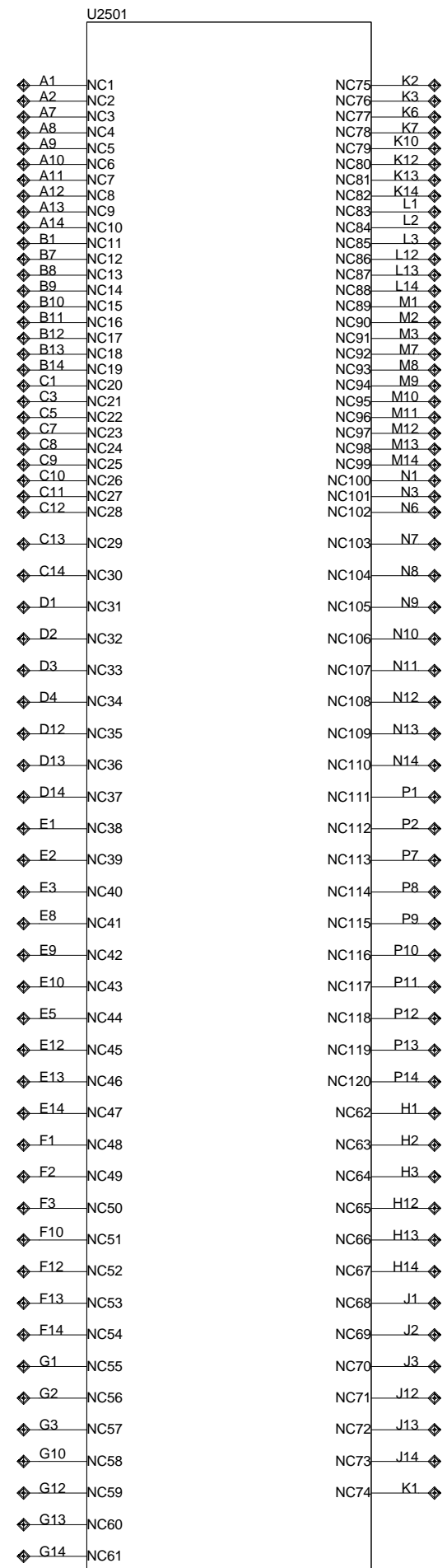
2

1

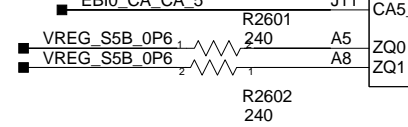
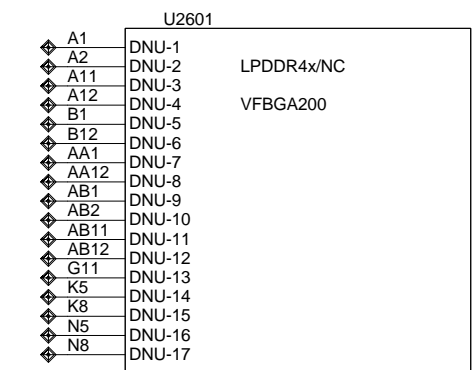
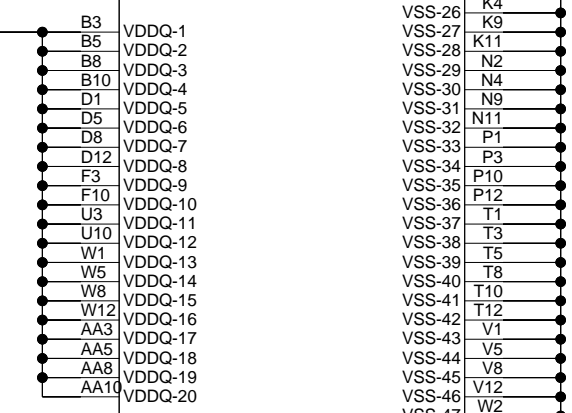
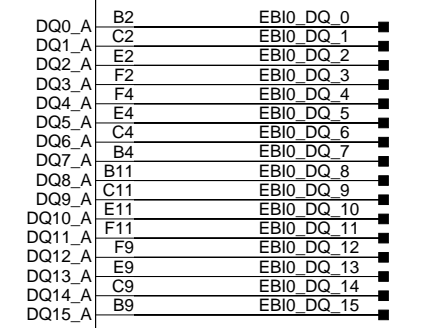
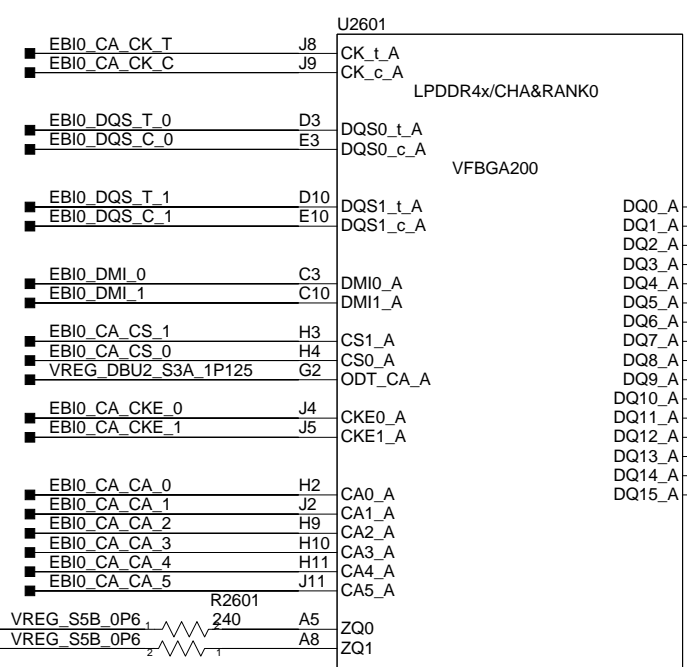
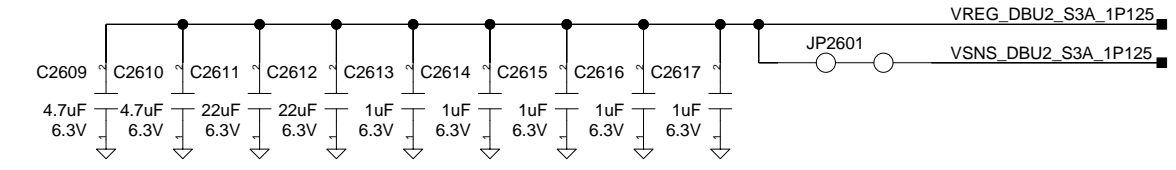
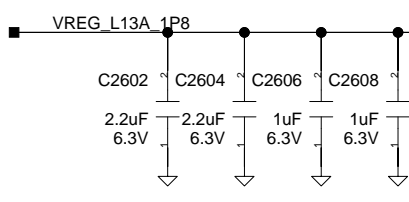
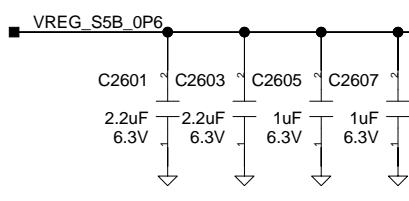
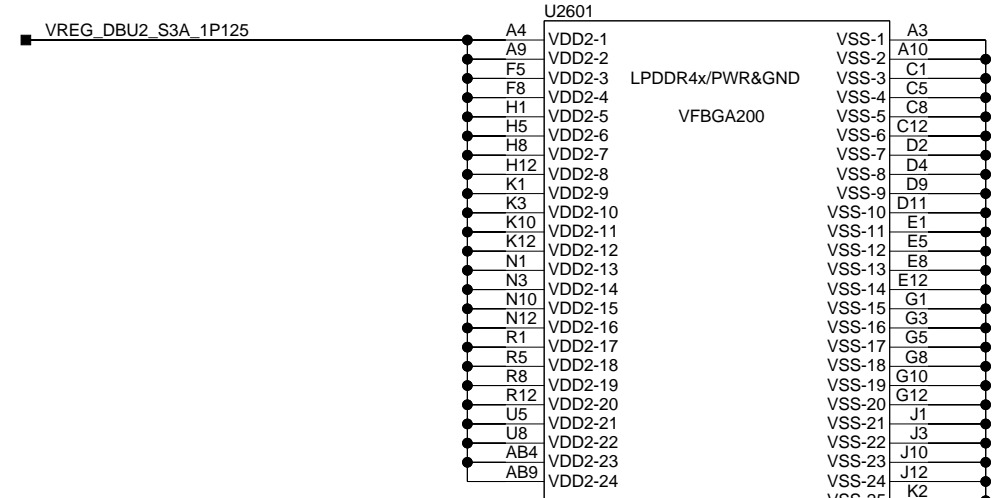
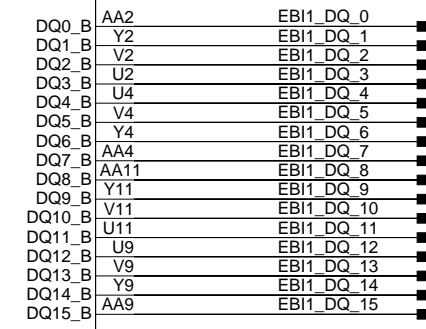
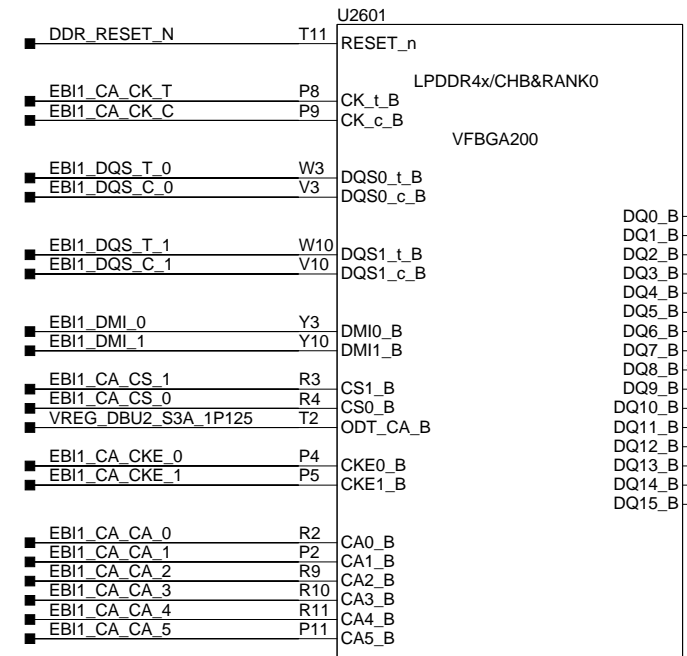
1



Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 24 PM8008	
Approved:		Size B	Document Number
Sheet		of 32	Date: 12/05/2021:16:34



Confidential			
K01_SOM			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 25 eMMC		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 13/05/2021:08:34	



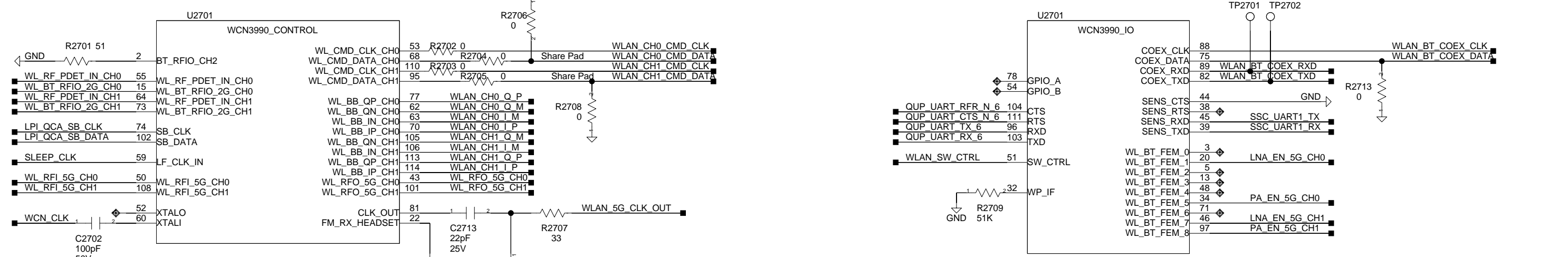
Confidential			
K01_SOM			
Designer:	Drawing Title: 26 RAM		
Drawn by:	Page Title: 26 RAM		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 13/05/2021:08:35	

4

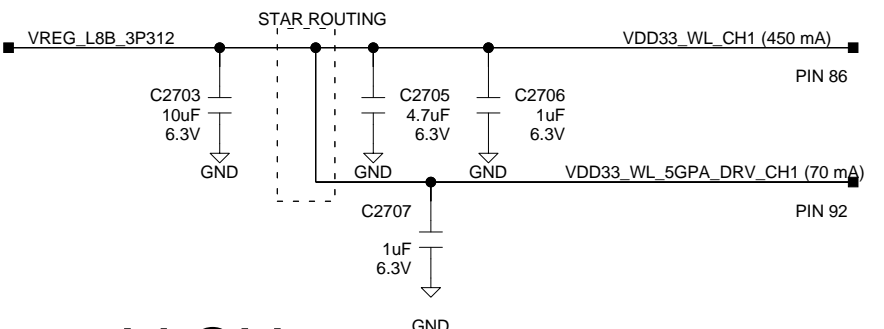
3

2

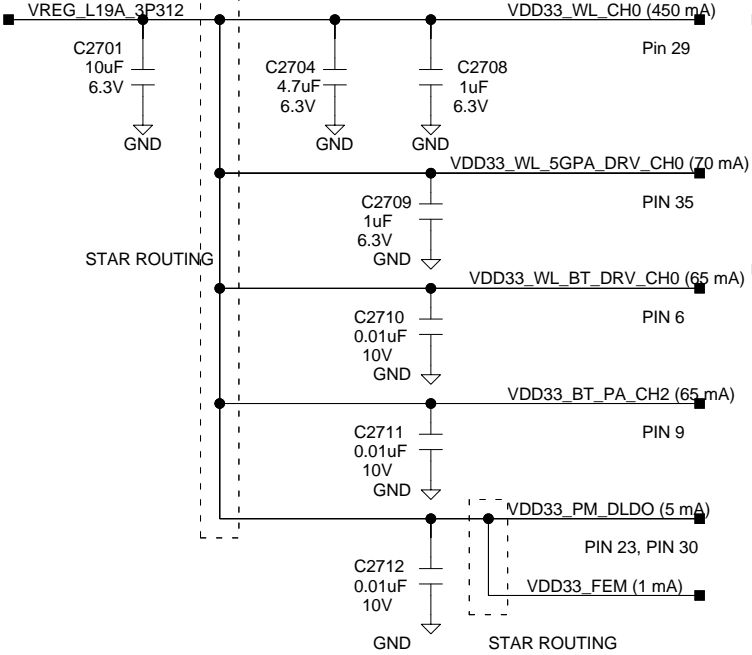
1



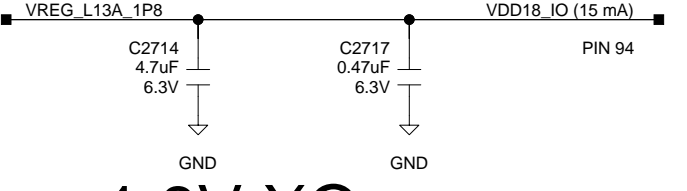
3.3V CH1



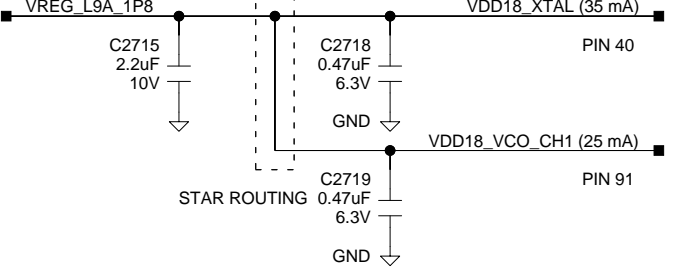
3.3V CH0



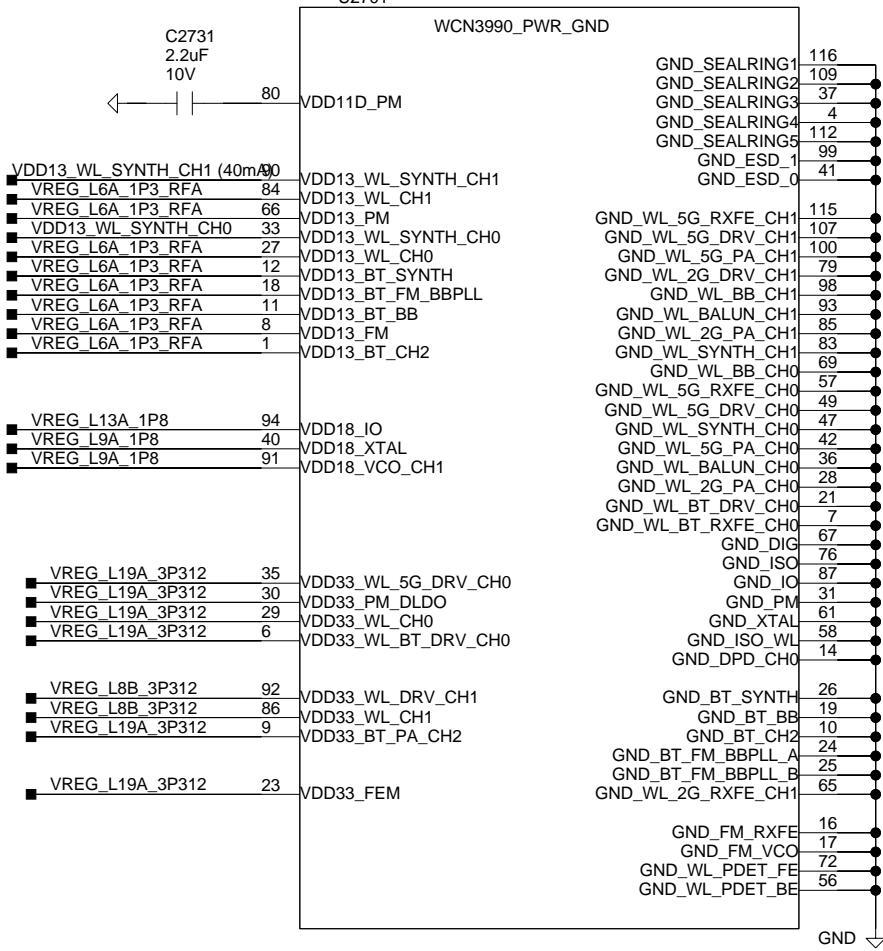
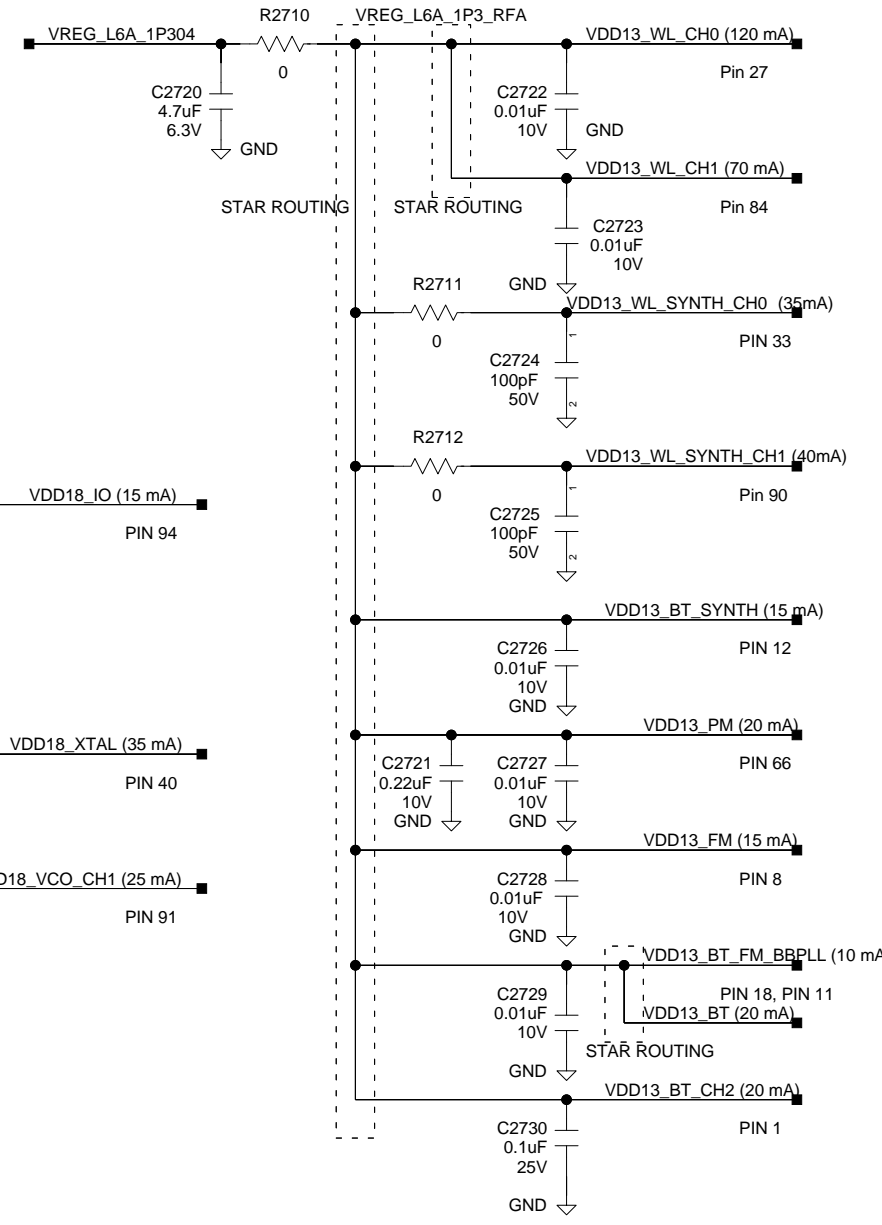
1.8V IO



1.8V XO



1.3V RFA



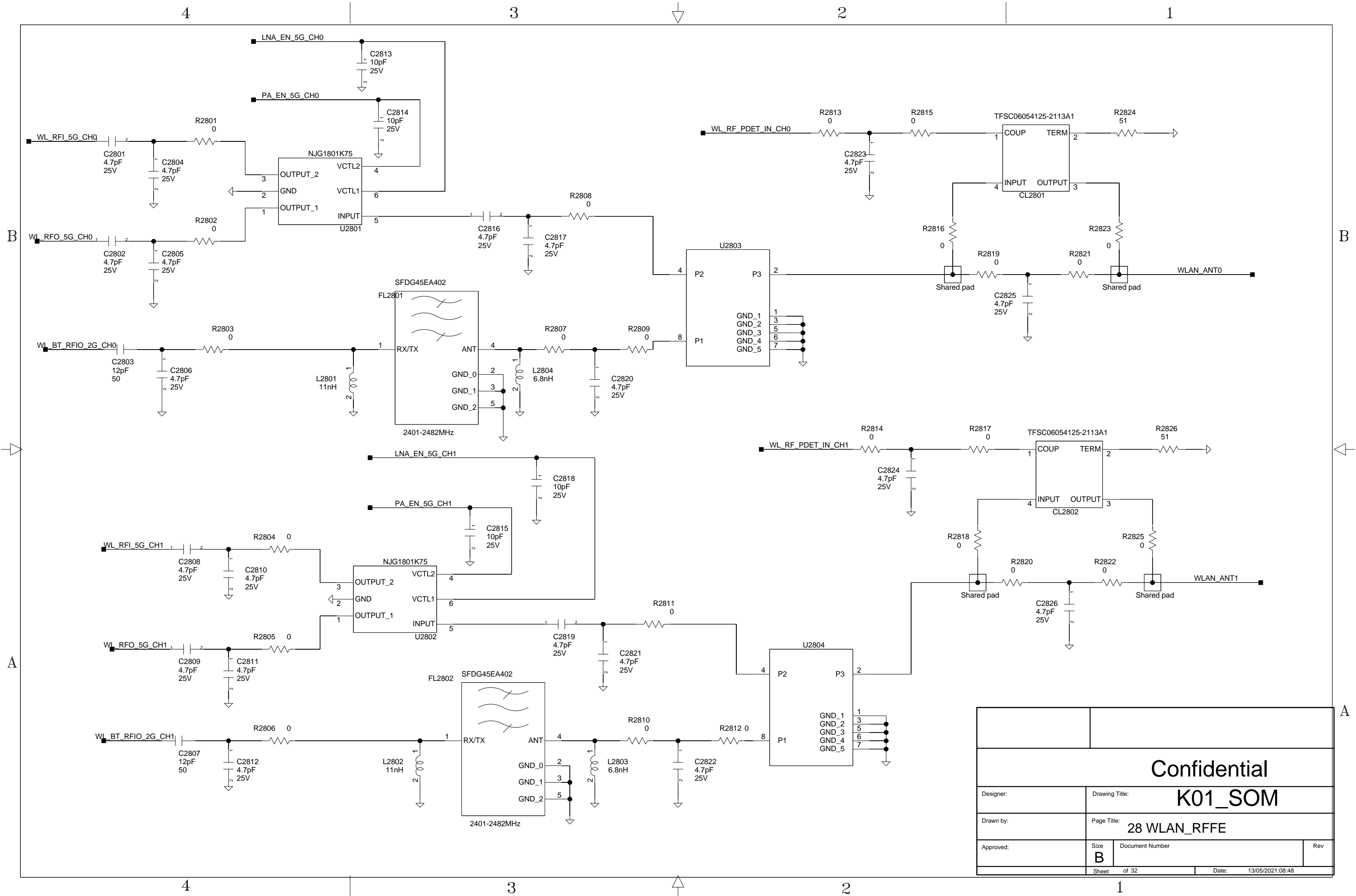
Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 27 WLAN_WCN3990	
Approved:		Size: B	Document Number:
Sheet: 1		Date: 13/05/2021:08:50	

4

3

2

1



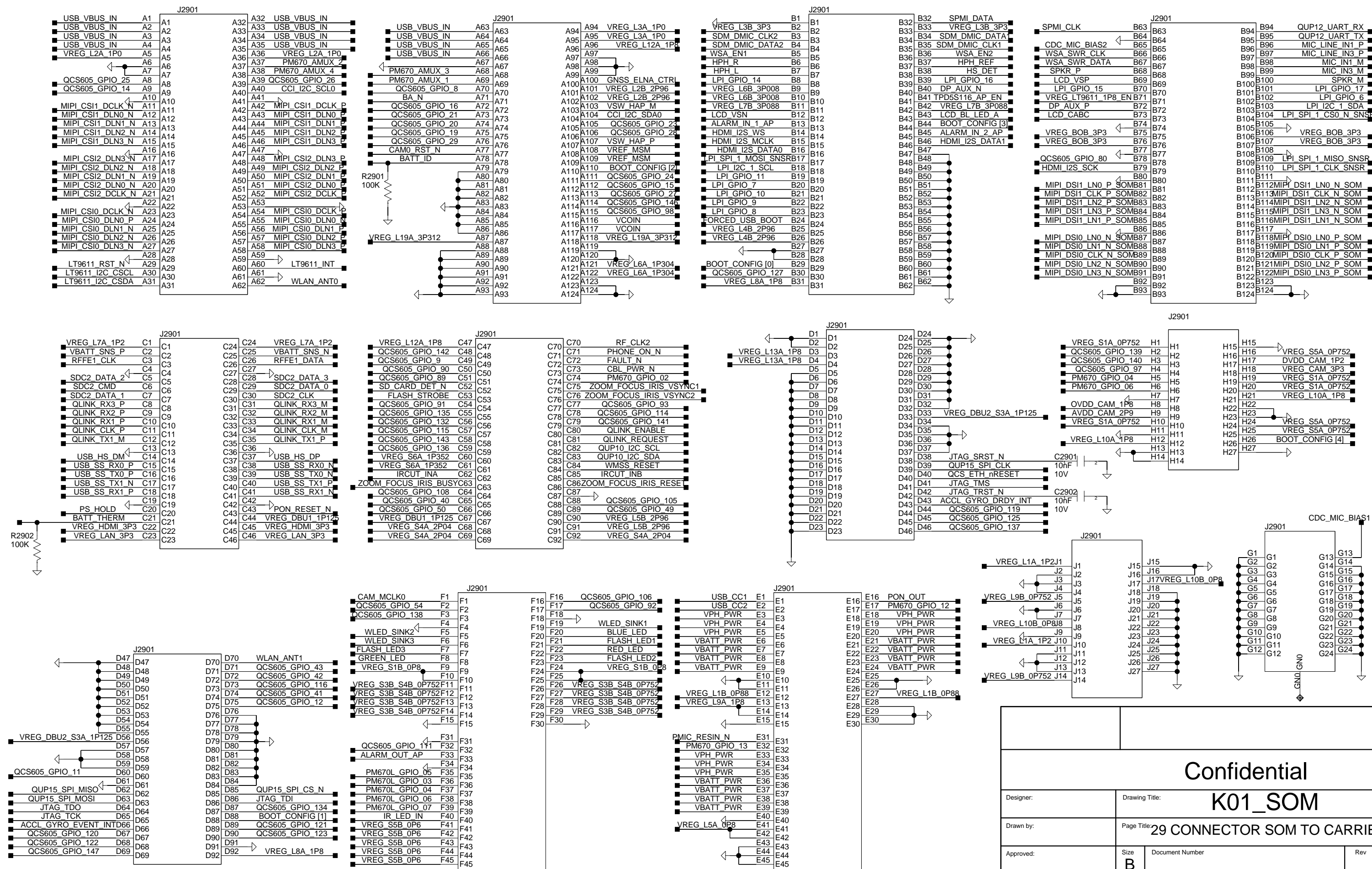
Confidential			
K01_SOM			
Designer:	Drawing Title:		
Drawn by:	Page Title:		
Approved:	Size	Document Number	Rev
	B		
Sheet	of 32	Date:	13/05/2021:08:48

B

B

A

A



<h1>Confidential</h1>			
<h2>K01_SOM</h2>			
Designer:	Drawing Title:		
Drawn by:	Page Title: 29 CONNECTOR SOM TO CARRIER		
Approved:	Size	Document Number	Rev
	B		
Sheet	of 32	Date:	13/05/2021:08:45

4

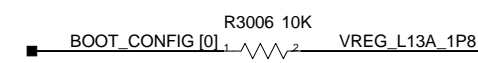
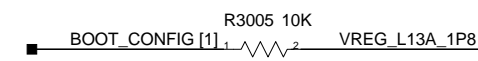
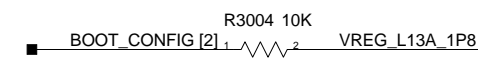
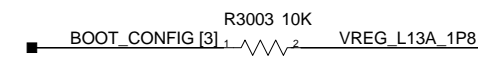
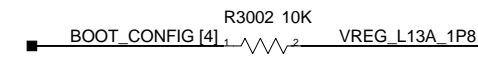
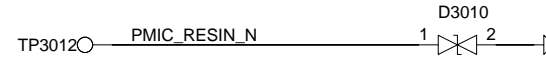
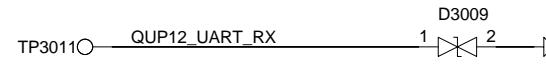
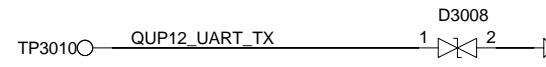
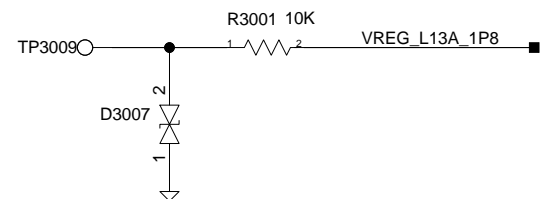
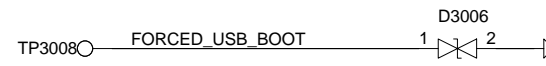
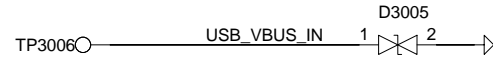
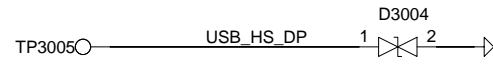
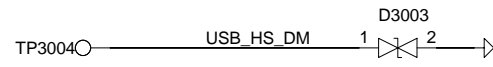
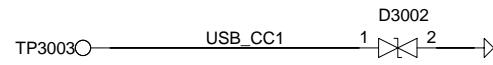
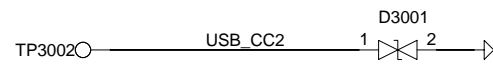
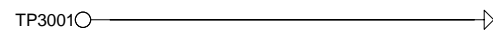
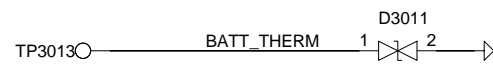
3

2

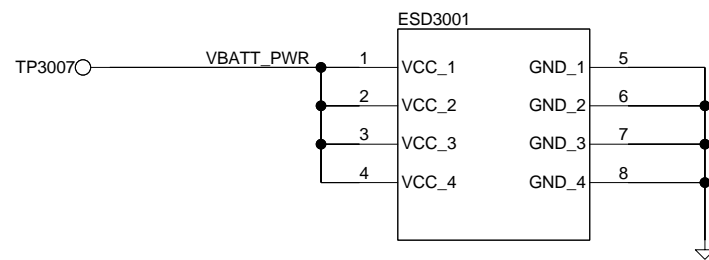
1

B

B



R3003: Placed



A

A

4

3

2

1

Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 30 TEST POINT	
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 12/05/2021:19:43	

4

3

2

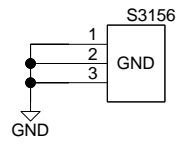
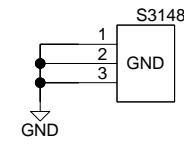
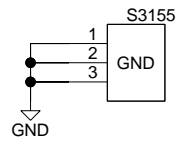
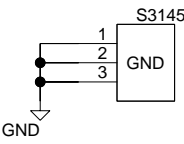
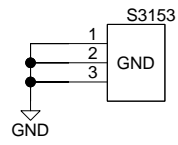
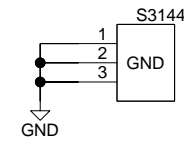
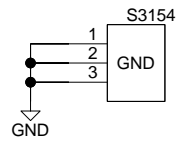
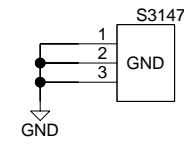
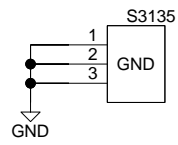
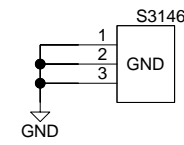
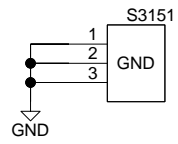
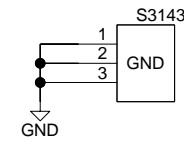
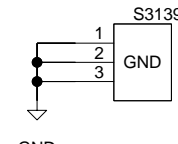
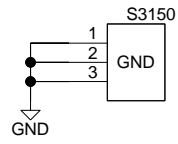
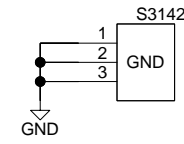
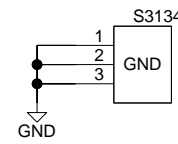
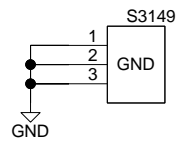
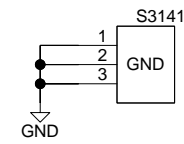
1

B

B

A

A



Confidential			
Designer:		Drawing Title: K01_SOM	
Drawn by:		Page Title: 31 Shield	
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 13/05/2021:08:43	

4

3

2

1

4

3

2

1

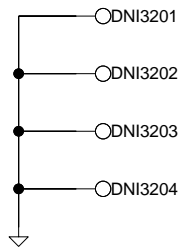
1

B

B

A

A



Confidential			
Designer:	Drawing Title: K01_SOM		
Drawn by:	Page Title: 32 Marking PCB		
Approved:	Size B	Document Number	Rev
Sheet of 32		Date: 13/05/2021:08:42	

4

3

2

1

1