

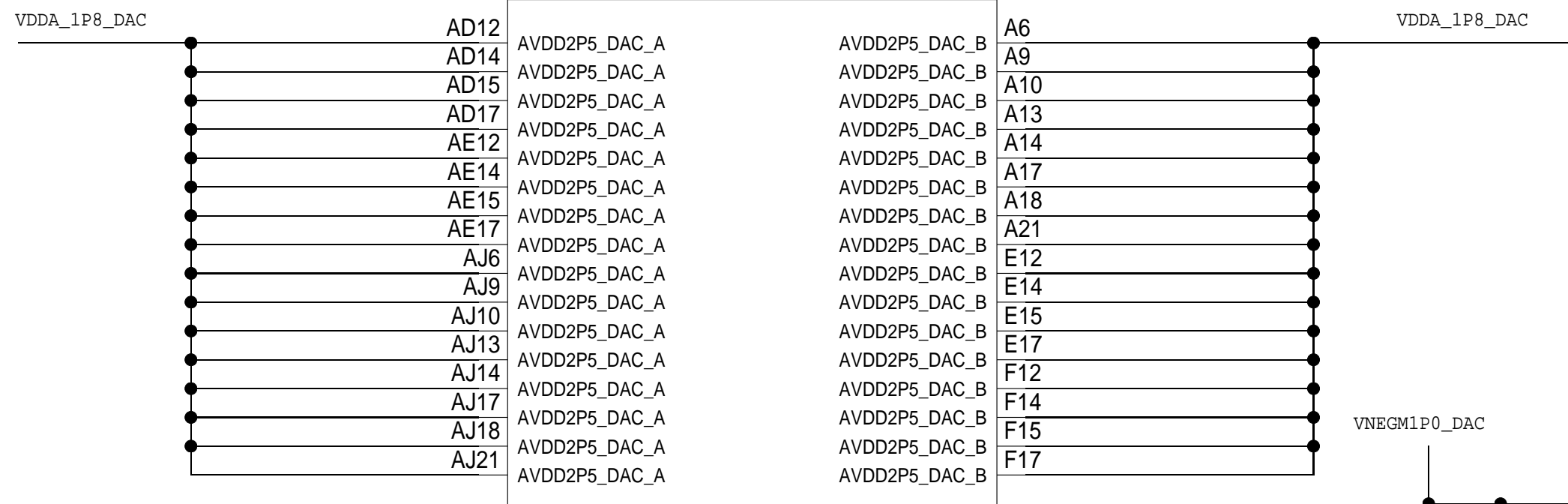
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 2 OF 32

APOLLO POWER(2.5V,-1V, 1.8V, 0.8V)

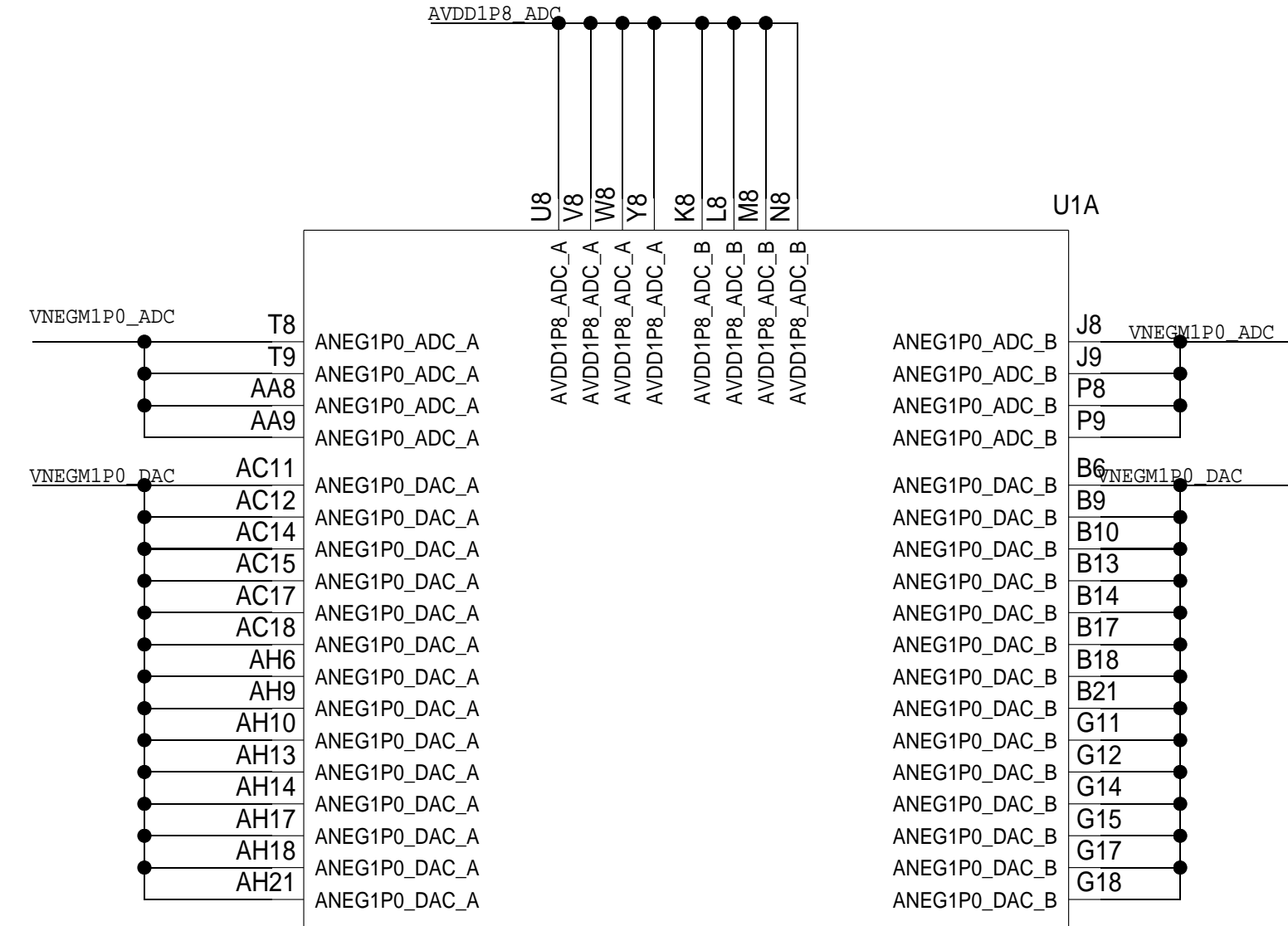
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

AVDD2P5_DAC



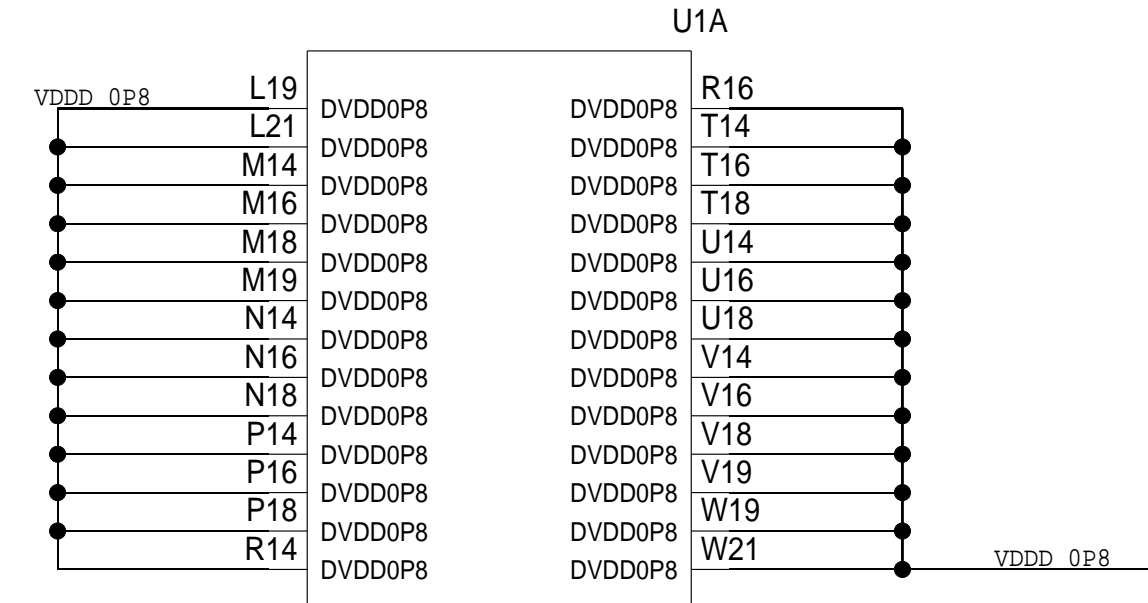
U1AAD9084BBPZ_4T4R_DIFFERENTIAL

ANEGADC(DAC) / AVDD1P8_ADC

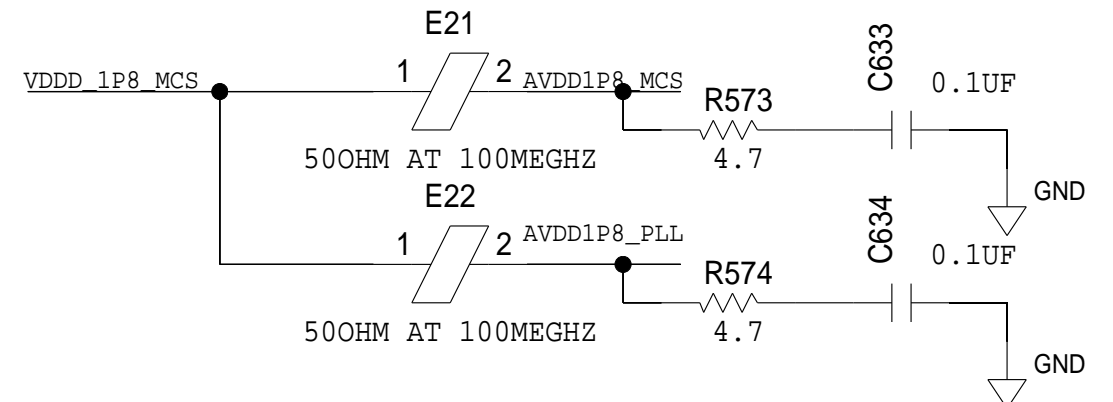
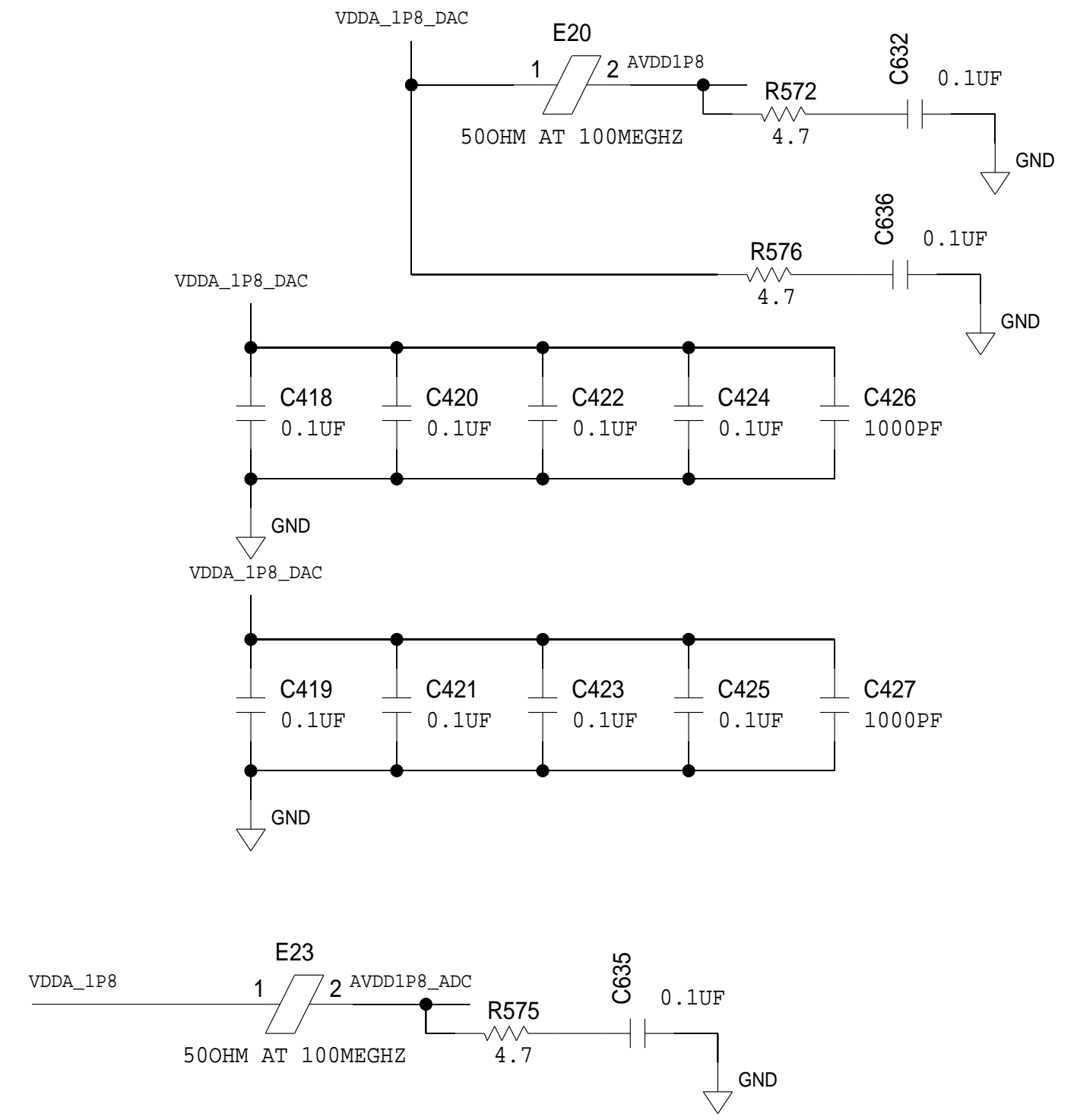
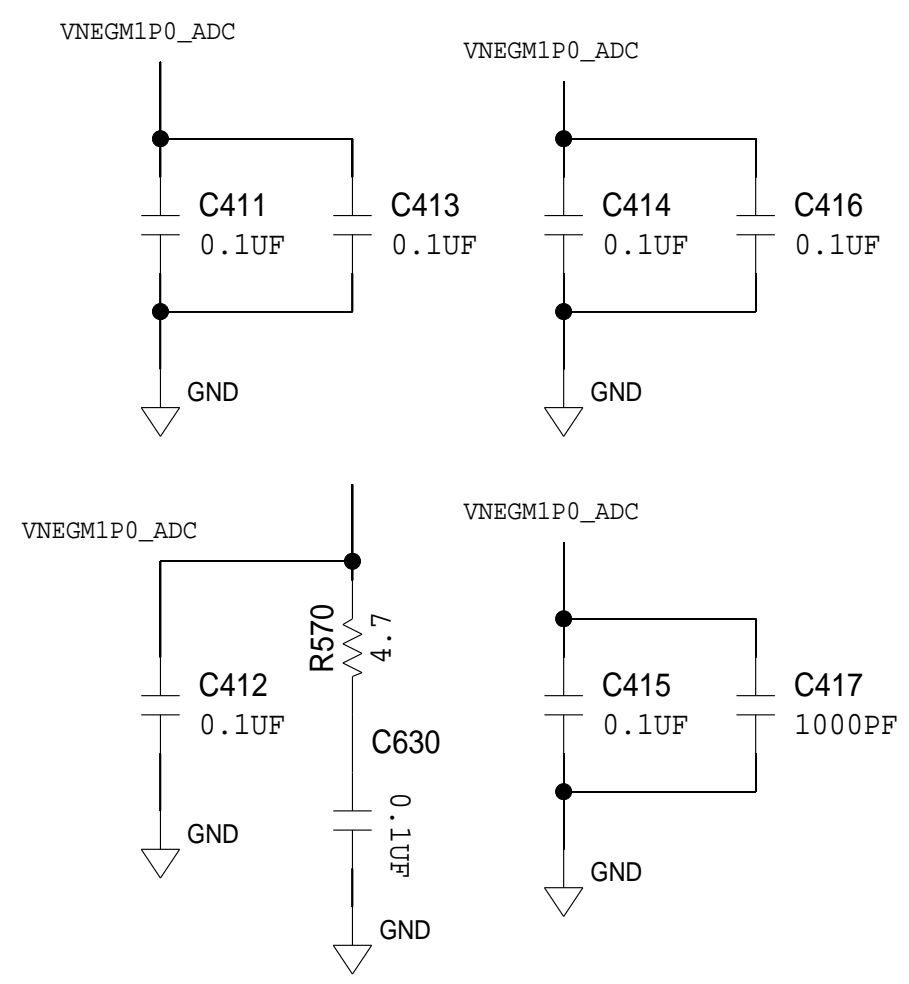
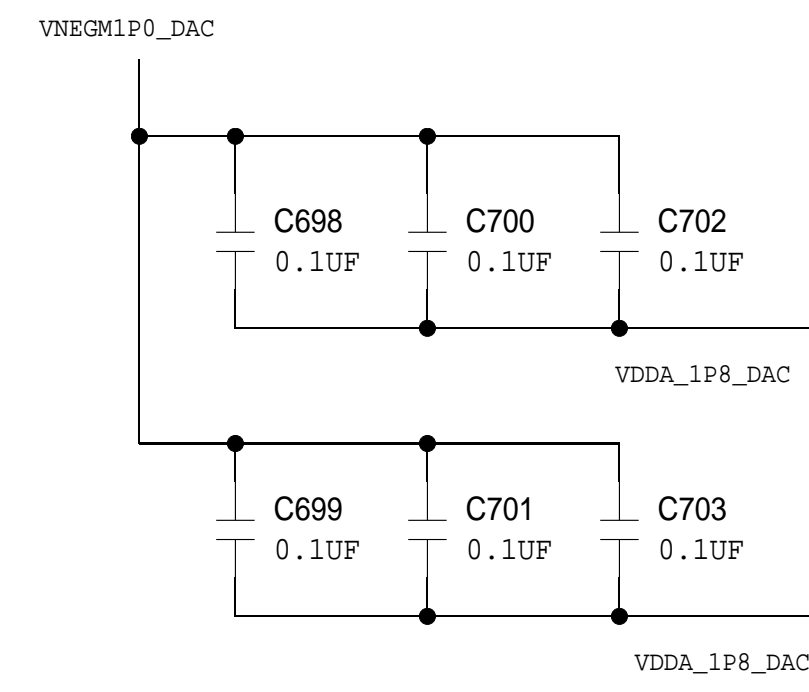
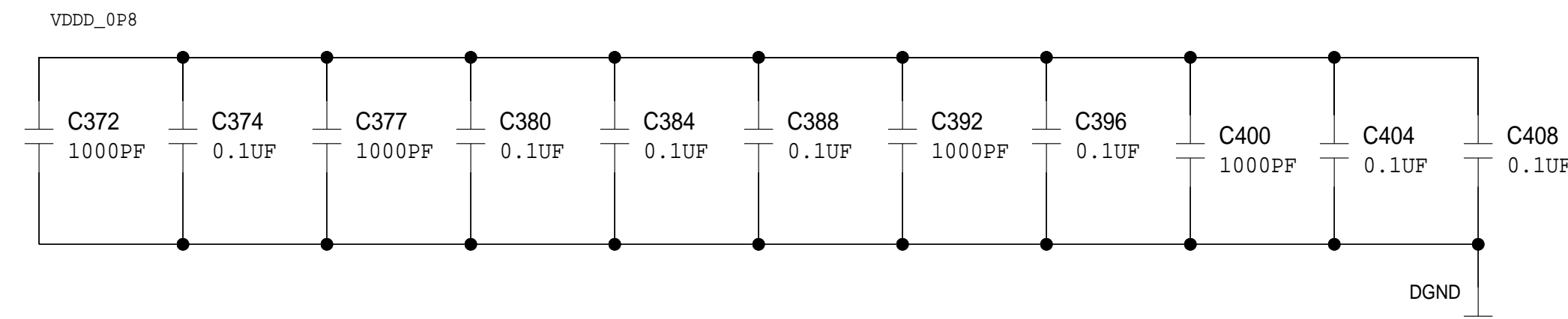
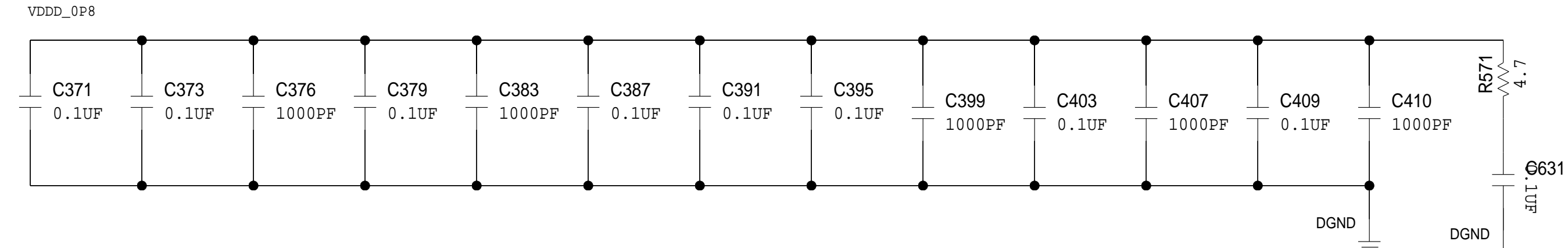
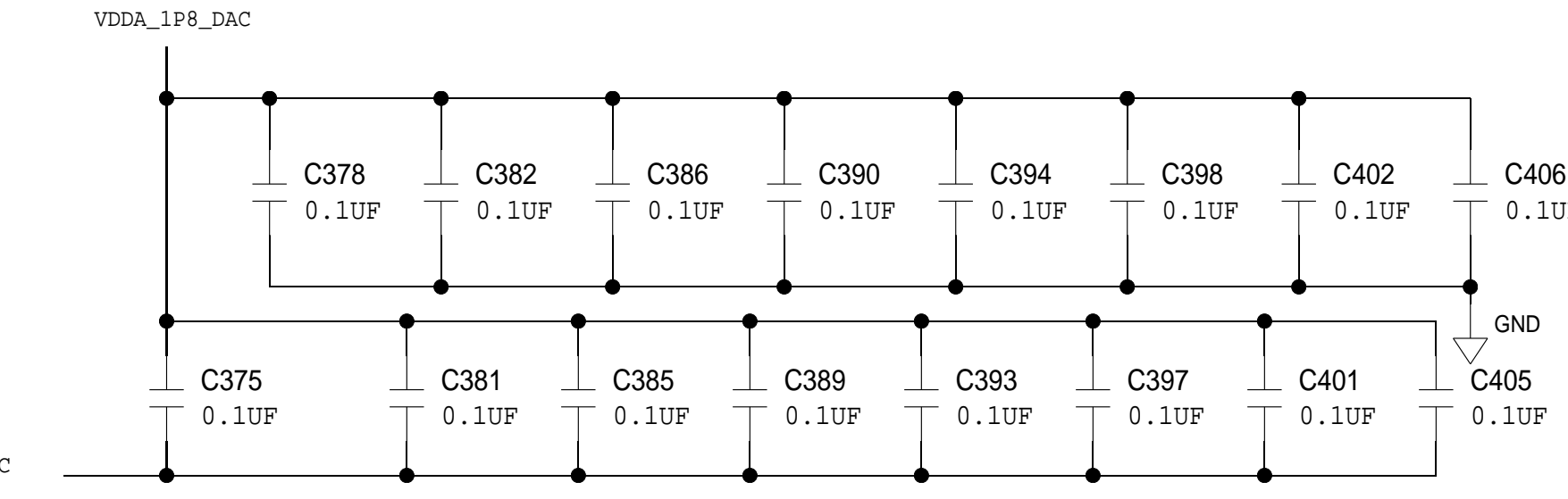
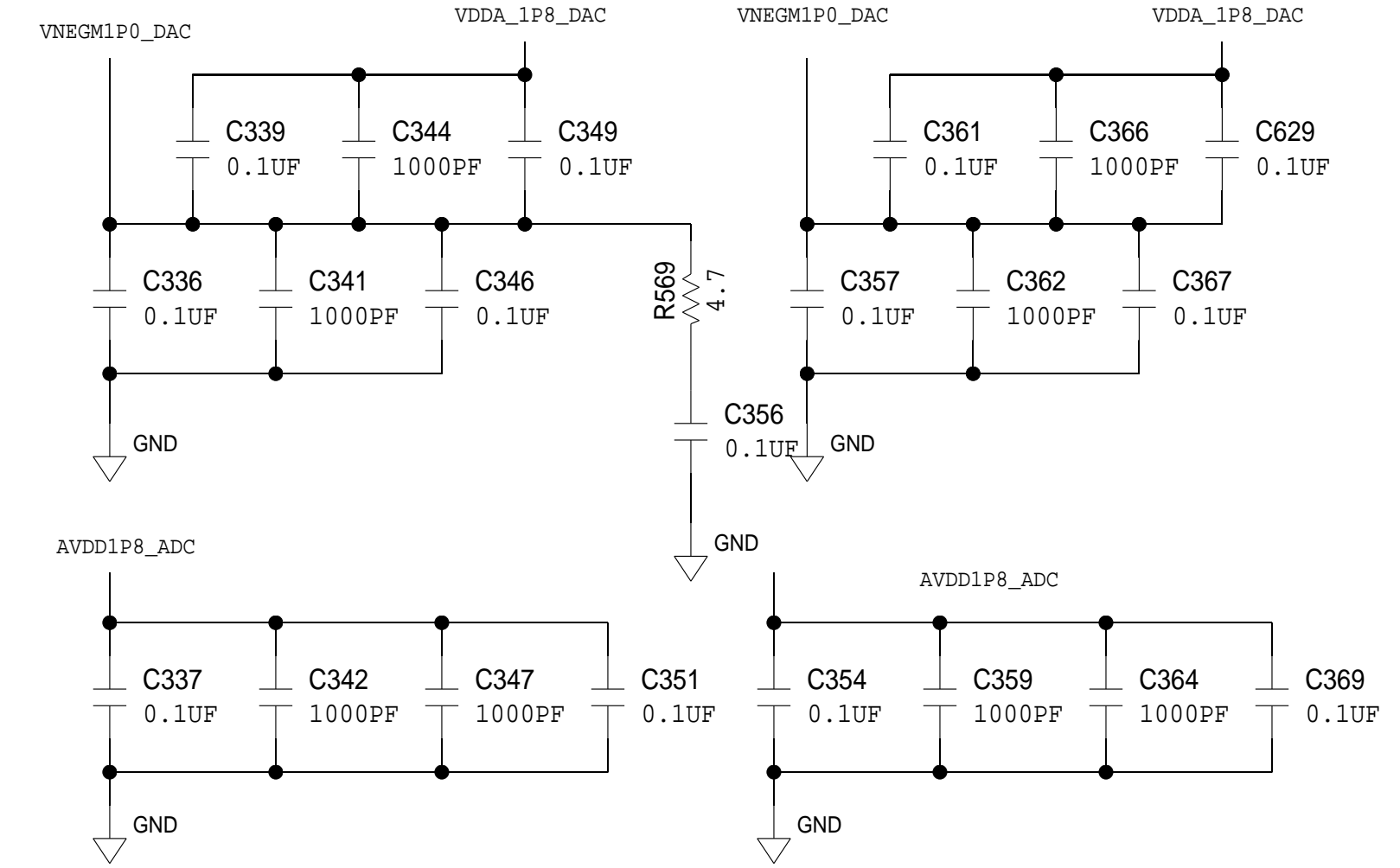
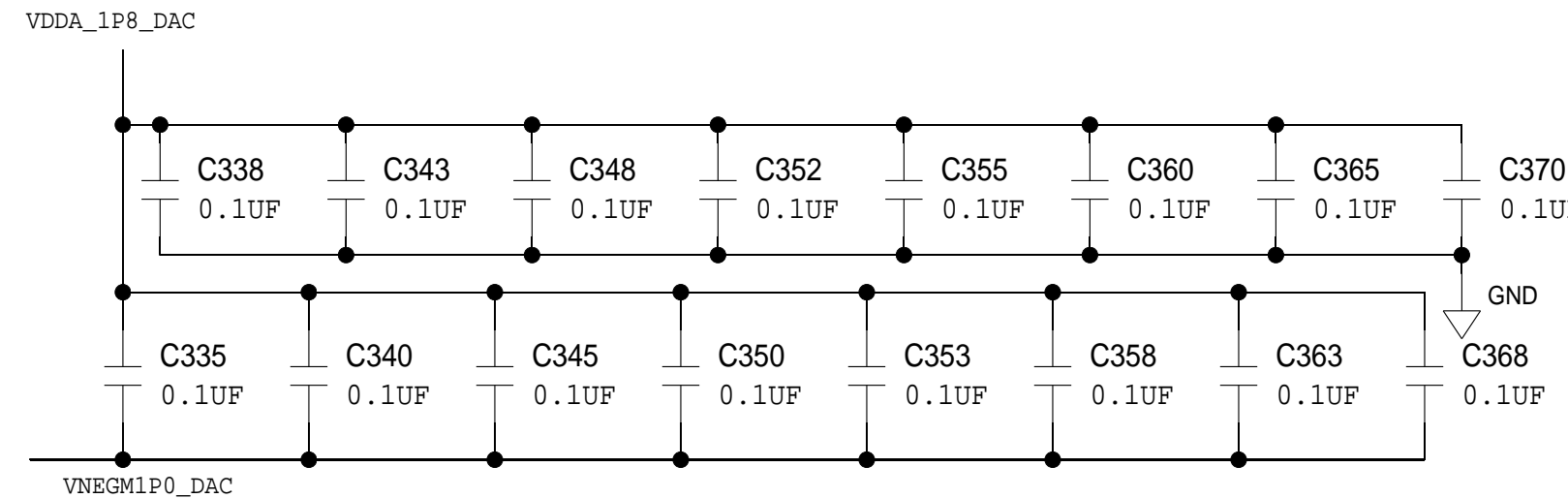


AD9084BBPZ_4T4R_DIFFERENTIAL

DVDD0P8



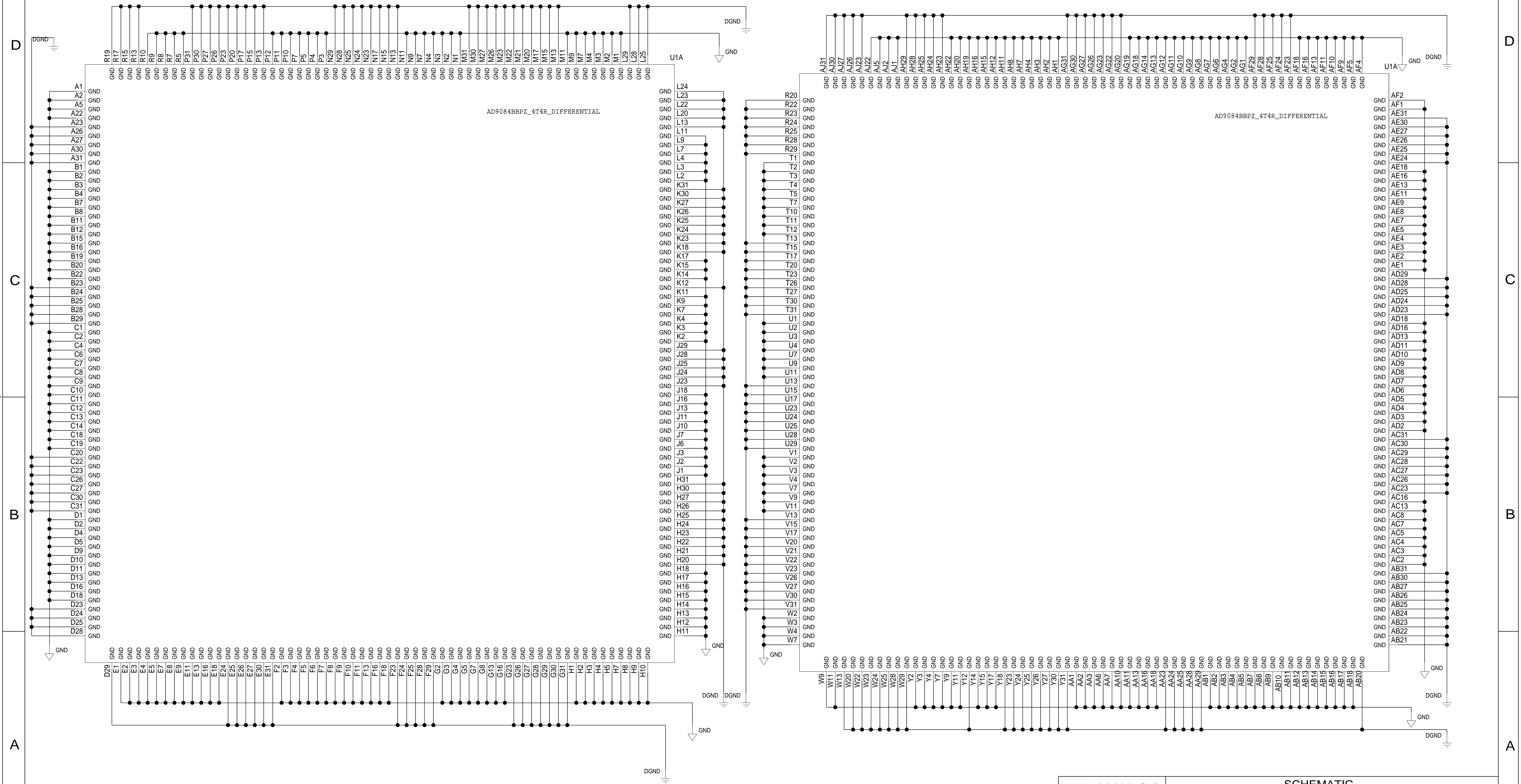
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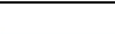


SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 5 OF 32

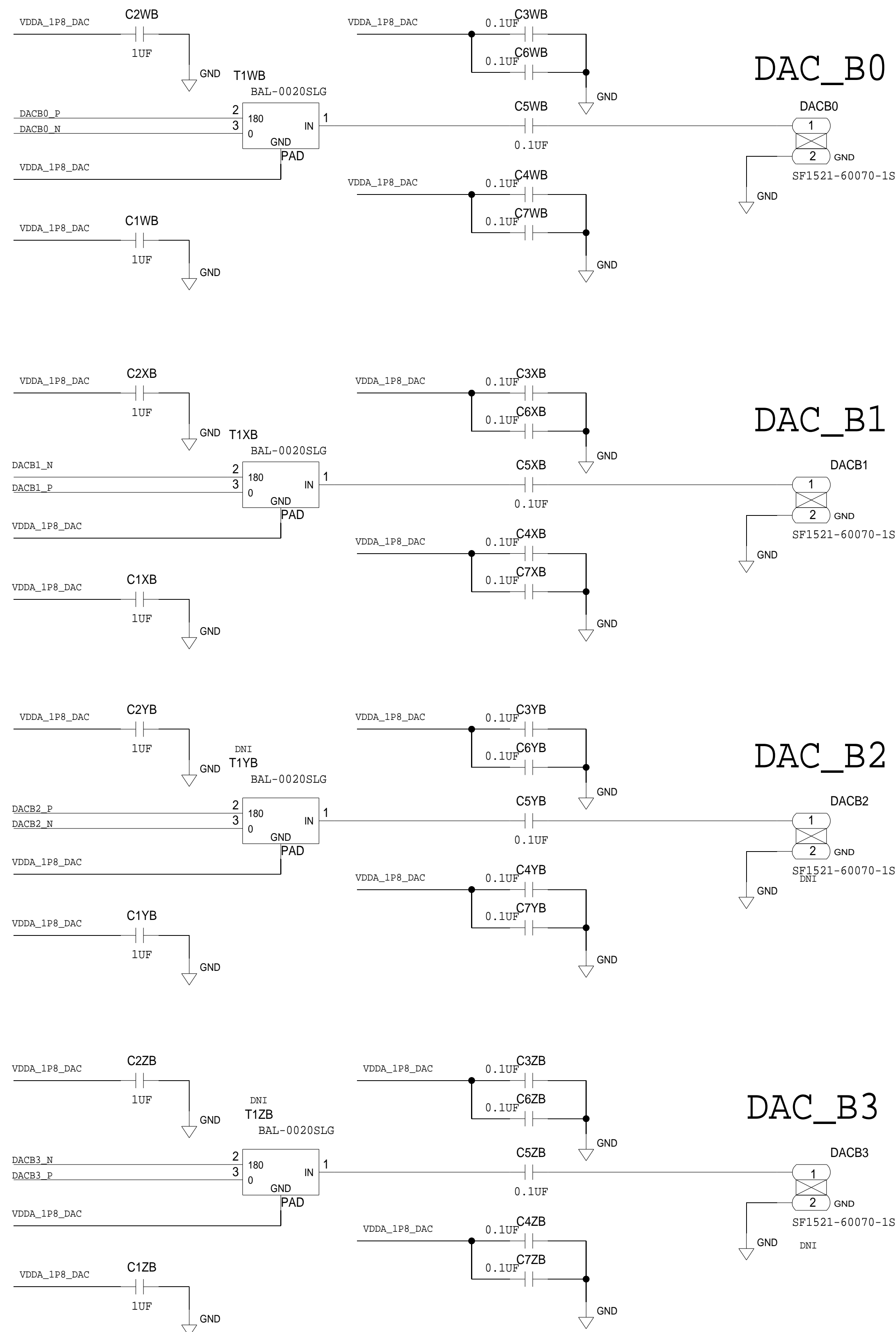
APOLLO POWER GND

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



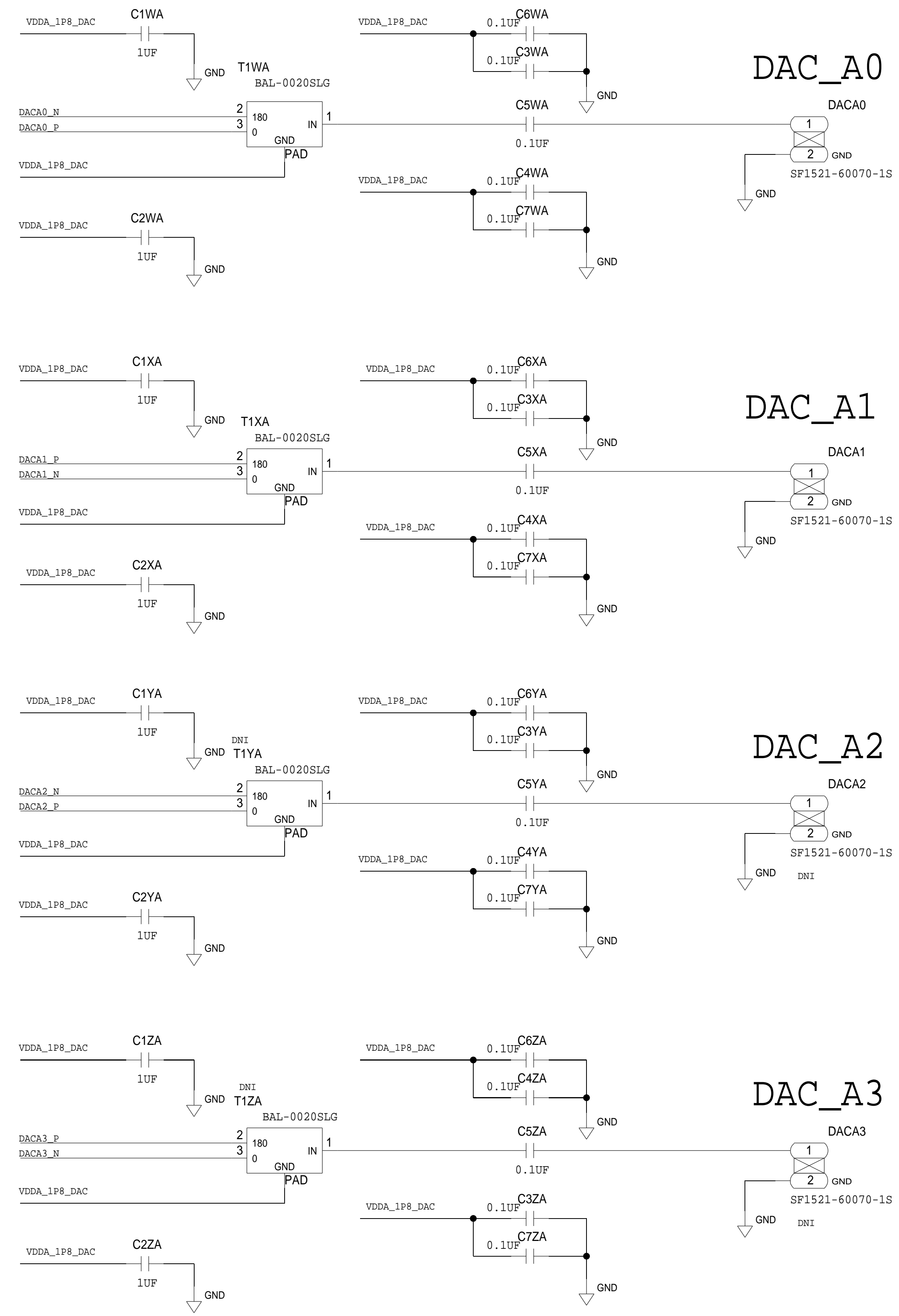
 ANALOG DEVICES	<h1 style="text-align: center;">SCHEMATIC</h1>			
	<p>HW TYPE : Customer Evaluation</p> <p>Product(s) : APOLLO Customer DIFF</p> <p> : APOLLO Customer DIFF</p>			
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PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 6 OF 32	

DAC OUTPUT

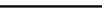


FOR DC-BLOCKING CAP, USING A 100PF COG/NPO CAPACITOR MAY
IMPROVE THE FREQUENCY RESPONSE. CONSIDER KEMET (C0201C101J3GAC7867)

WEST (B)



EAST (A)

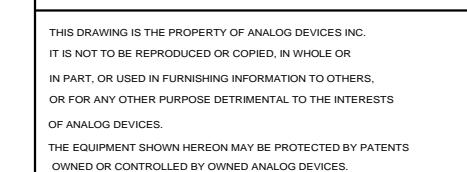
 ANALOG DEVICES	SCHEMATIC			
	HW TYPE : Customer Evaluation Product(s) : APOLLO Customer DIFF : APOLLO Customer DIFF			
<small>THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED IN FURNISHING INFORMATION TO OTHERS, OR FOR ANY OTHER PURPOSES PERTAINING, TO THE INTERESTS OF ANALOG DEVICES. THE COPYRIGHT HEREIN MAY BE PROTECTED BY PATENTS OWNED OR CONTROLLED BY ANALOG DEVICES.</small>	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 7	OF 32

4

D

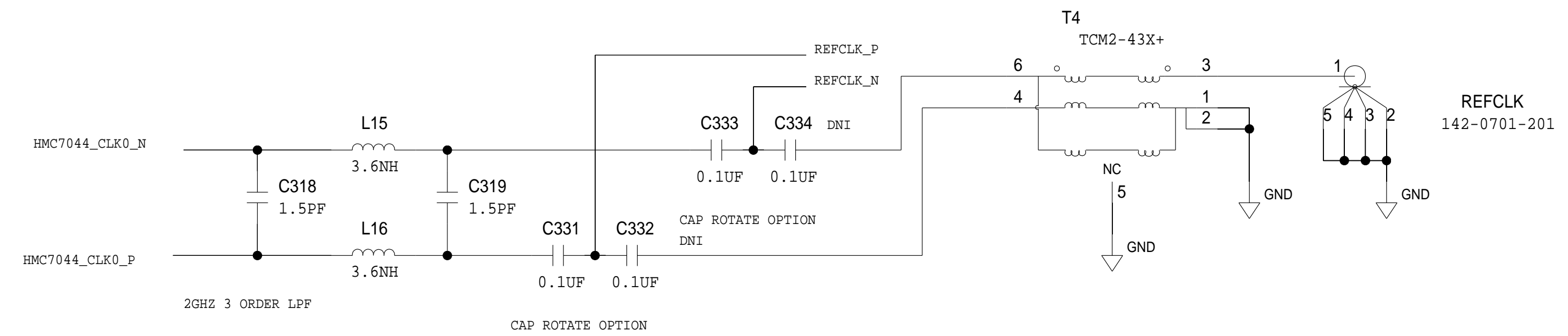


A



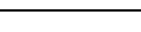
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APOLLO PLL REF CLOCK PATH



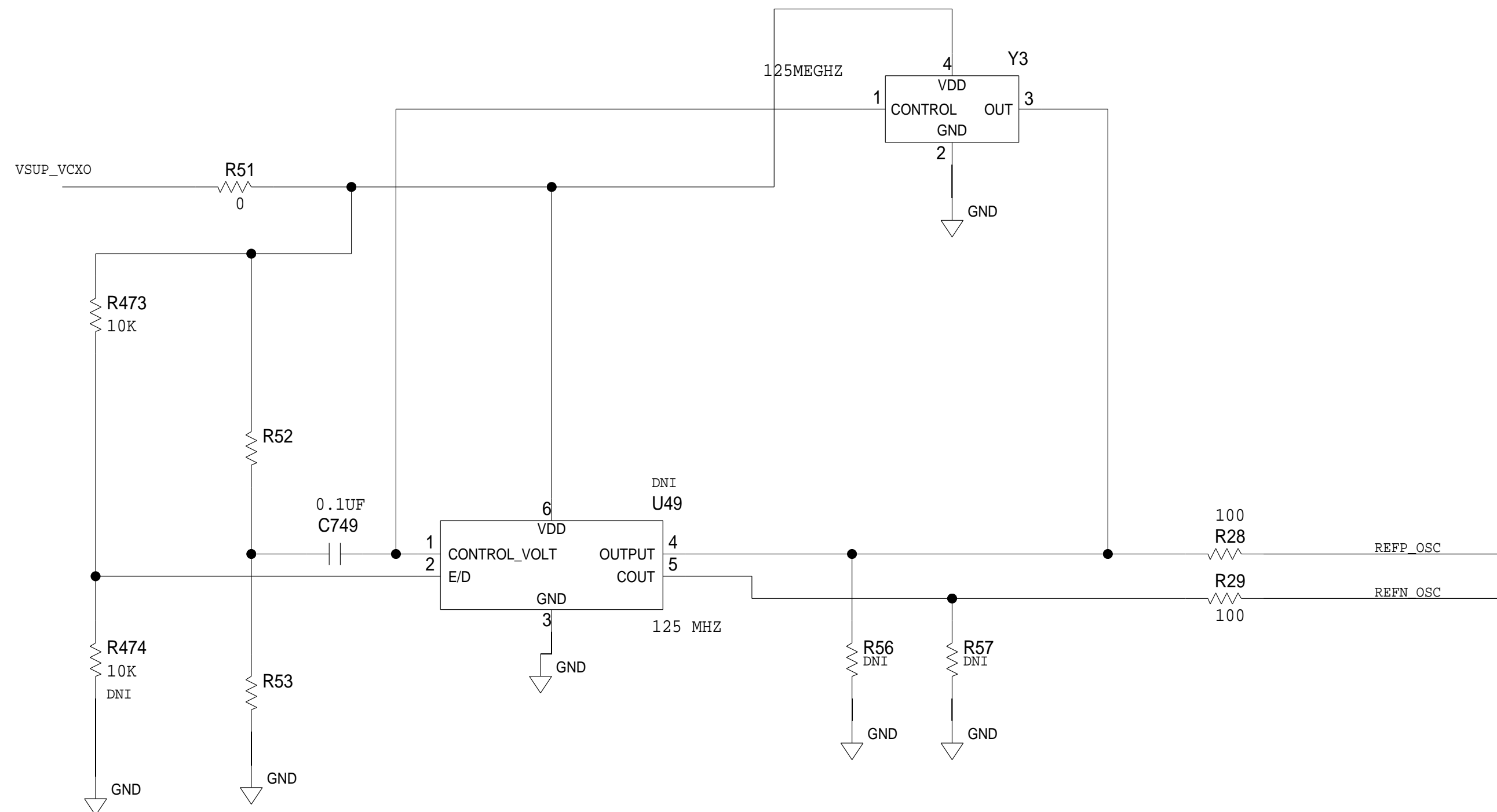
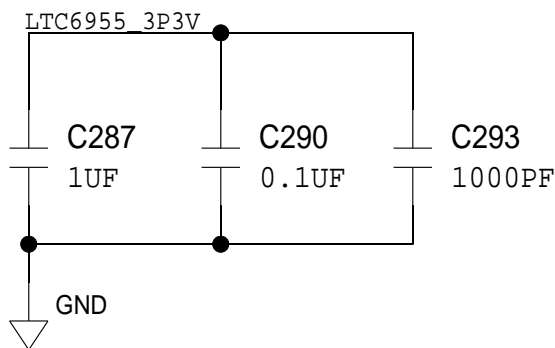
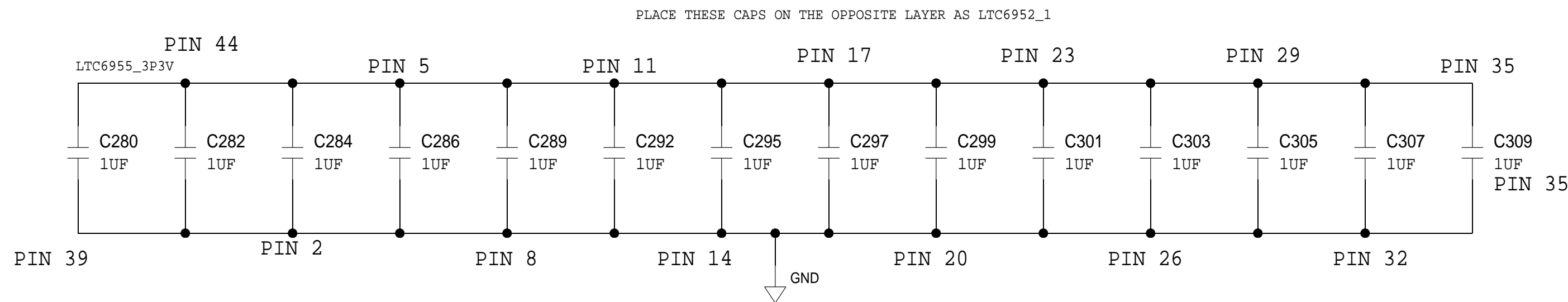
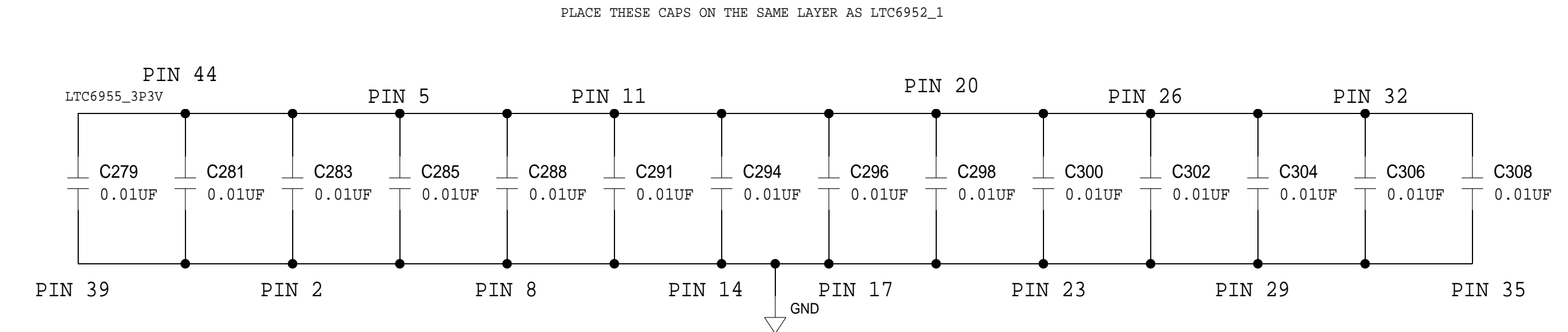
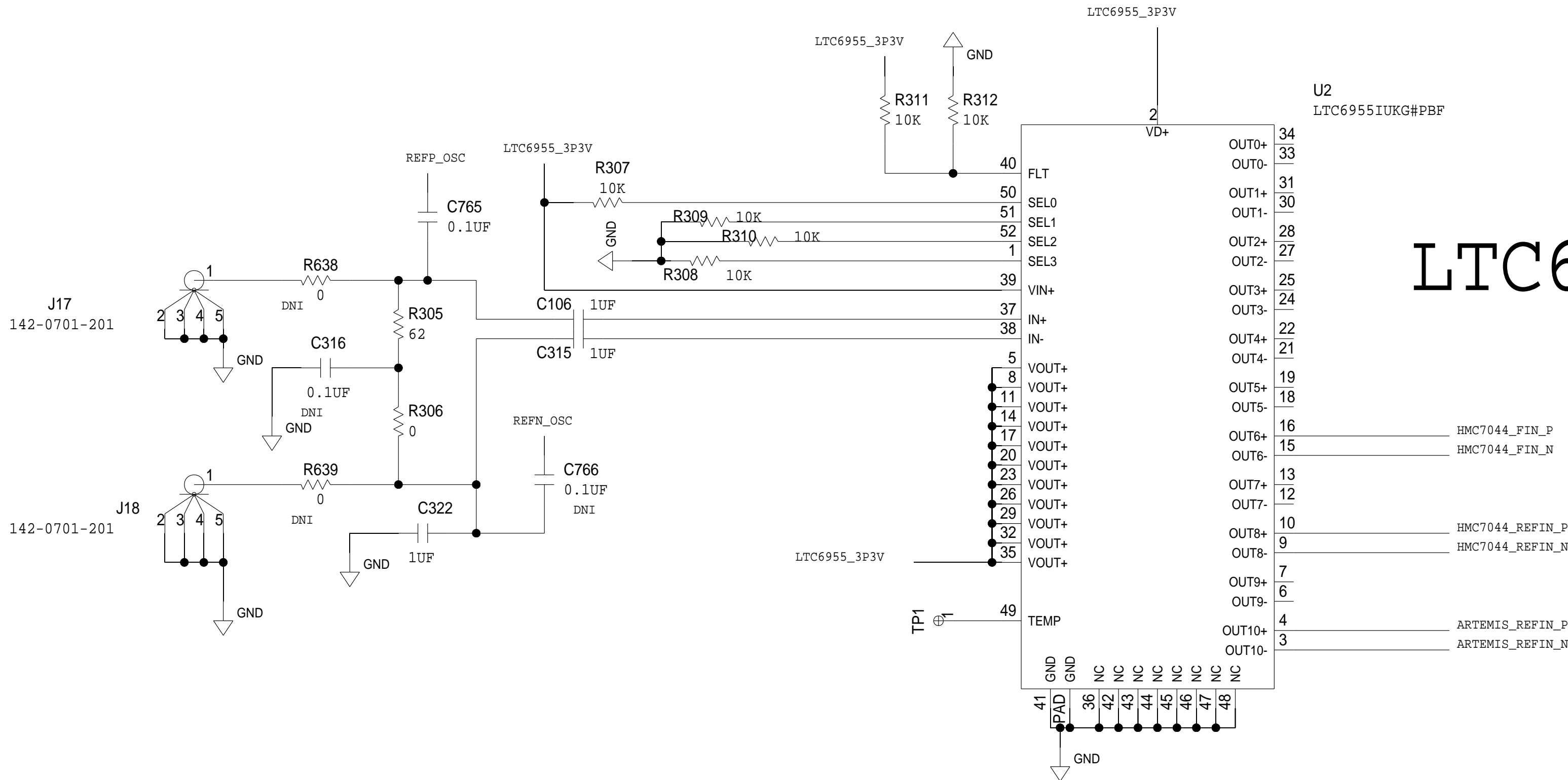
The diagram illustrates the CLK_B input circuit. It features two capacitors, C326 and C327, both rated at 0.1uF. C326 is connected to the CLKB_P signal, and C327 is connected to the CLKB_N signal. These signals are connected to the IN pins (180 and 0) of a DNI component labeled T1. The T1 component is also connected to GND at the PAD pin. The output of T1 is connected to the CLK_B input of the SF1521-60070-1S component, which is also connected to GND.

FOR DC-BLOCKING CAP, USING A 100PF COG/NPO CAPACITOR MAY
IMPROVE THE FREQUENCY RESPONSE. CONSIDER KEMET (C0201C101J3GAC7867)

 ANALOG DEVICES	<h1 style="text-align: center;">SCHEMATIC</h1>				
	HW TYPE : Customer Evaluation Product(s) : APOLLO Customer DIFF : APOLLO Customer DIFF				
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	PTD ENGINEER -	SIZE B	SCALE 1:1	SHEET 9	OF 32

CLOCK 2 OF 4
LTC6955 CLOCK DISTRIBUTION

LTC6955 F_MAX = 7.5GHZ

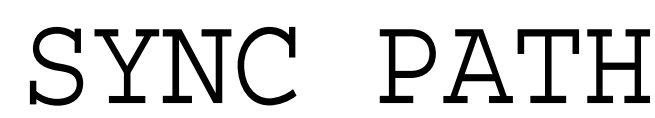



DUAL FOOTPRINT REFERENCE, SUPPORT 5X7, 9X14 FOOTPRINTS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

ANALOG DEVICES			
SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 10 OF 32

HMC7044 REFCLK AND SYSREF/TRIG





ANALOG
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HW TYPE : Customer Evaluation

Product(s) : APOLLO Customer DIFF

: APOLLO Customer DIFF

DESIGN VIEW

<DESIGN_VIEW>

PTD ENGINEER

DRAWING NO.

02_068355

REV

C

SIZE

D

SCALE

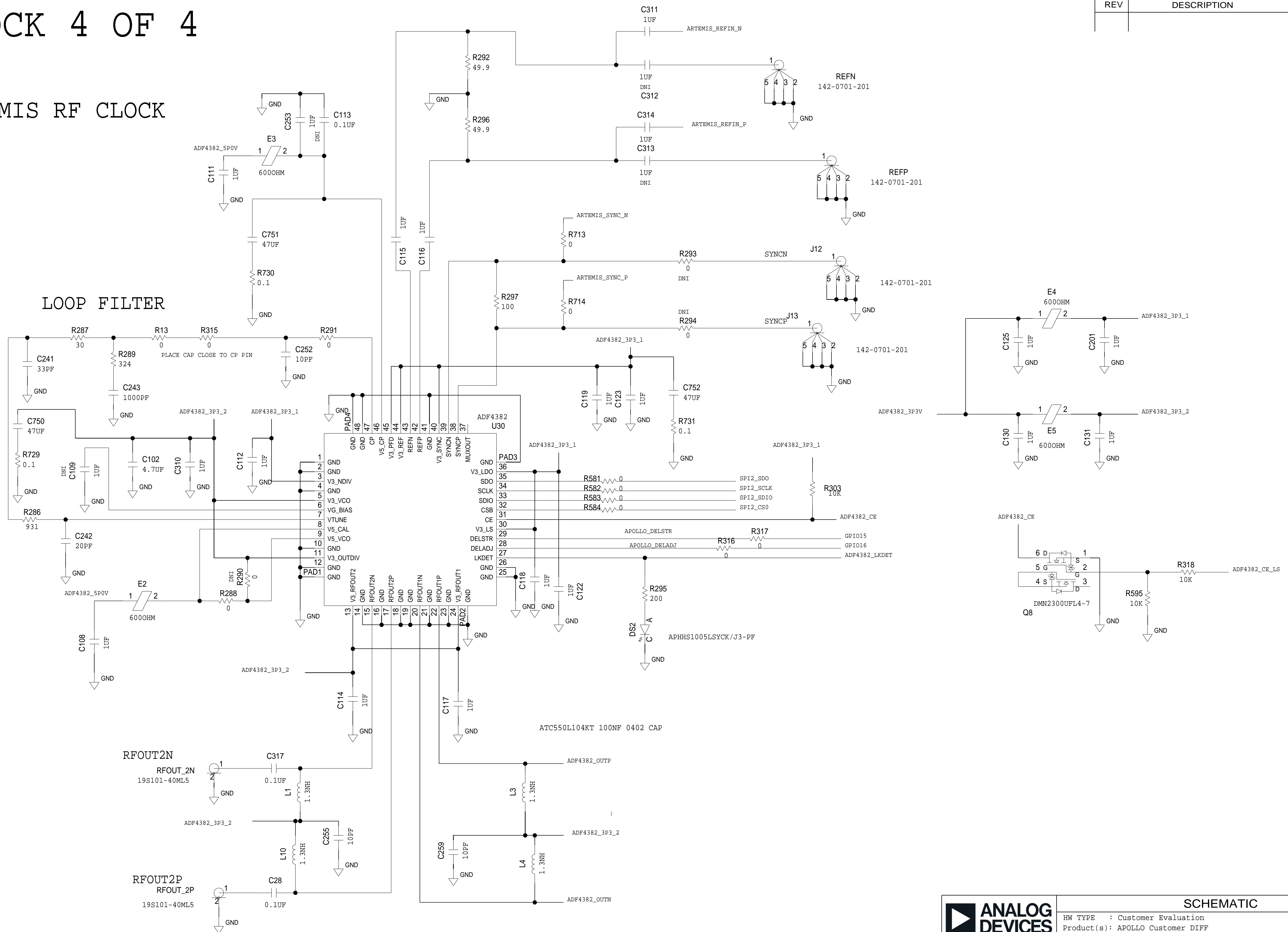
1:1

SHEET 11 OF 32


ARTEMIS RF CLOCK

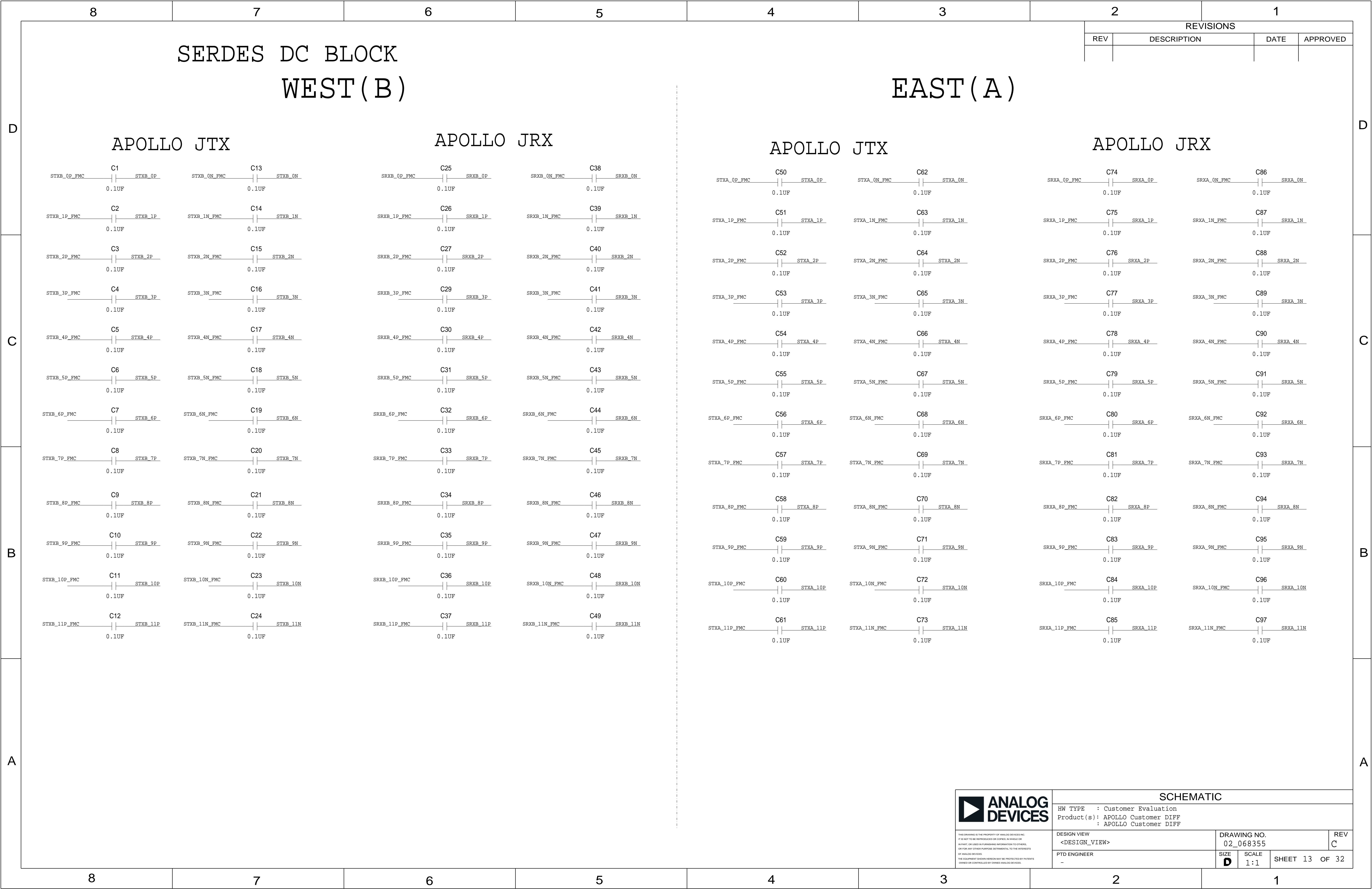
LOOP FILTER

C252 = 100 PF
R289 = 250 OHM
C243 = 10 NF
R287 = 110 OHM
C241 = 100 PF
R286 = 0 OHM (SHORT)
C242 = D.N.I. (DO NOT INSTALL)



RFOUT1P, RFOUT1N, RFOUT2P, RFOUT2N TO BE EQUAL
LENGTH FOR PHASE MATCHING
RF SIGNALS TO BE 50 OHM TRACES

	<h2 style="text-align: center;">SCHEMATIC</h2>			
	<p>HW TYPE : Customer Evaluation</p> <p>Product(s) : APOLLO Customer DIFF</p> <p style="padding-left: 40px;">: APOLLO Customer DIFF</p>			
<small>THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. IT IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART, OR USED IN FURNISHING INFORMATION TO OTHERS, OR FOR ANY OTHER PURPOSES DETERMINING TO THE INTERESTS OF ANALOG DEVICES.</small> <small>THE EQUIPMENT DESCRIBED HEREON MAY BE PROTECTED BY PATENTS OWNED OR CONTROLLED BY OWNED ANALOG DEVICES.</small>	DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02_068355	REV C
	PTD ENGINEER D	SCALE 1:1	SHEET 12 OF 32	



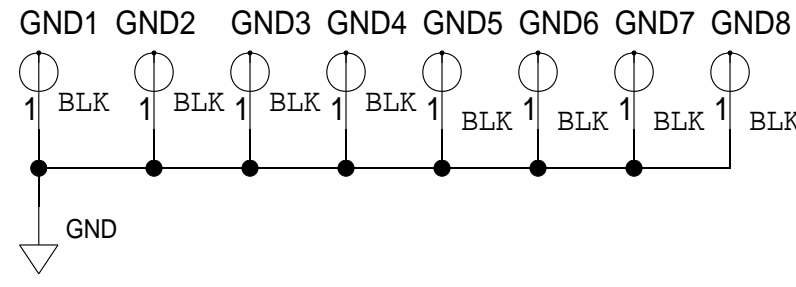
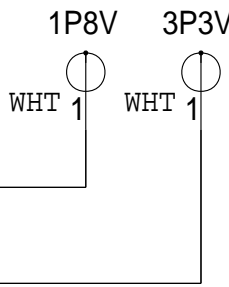
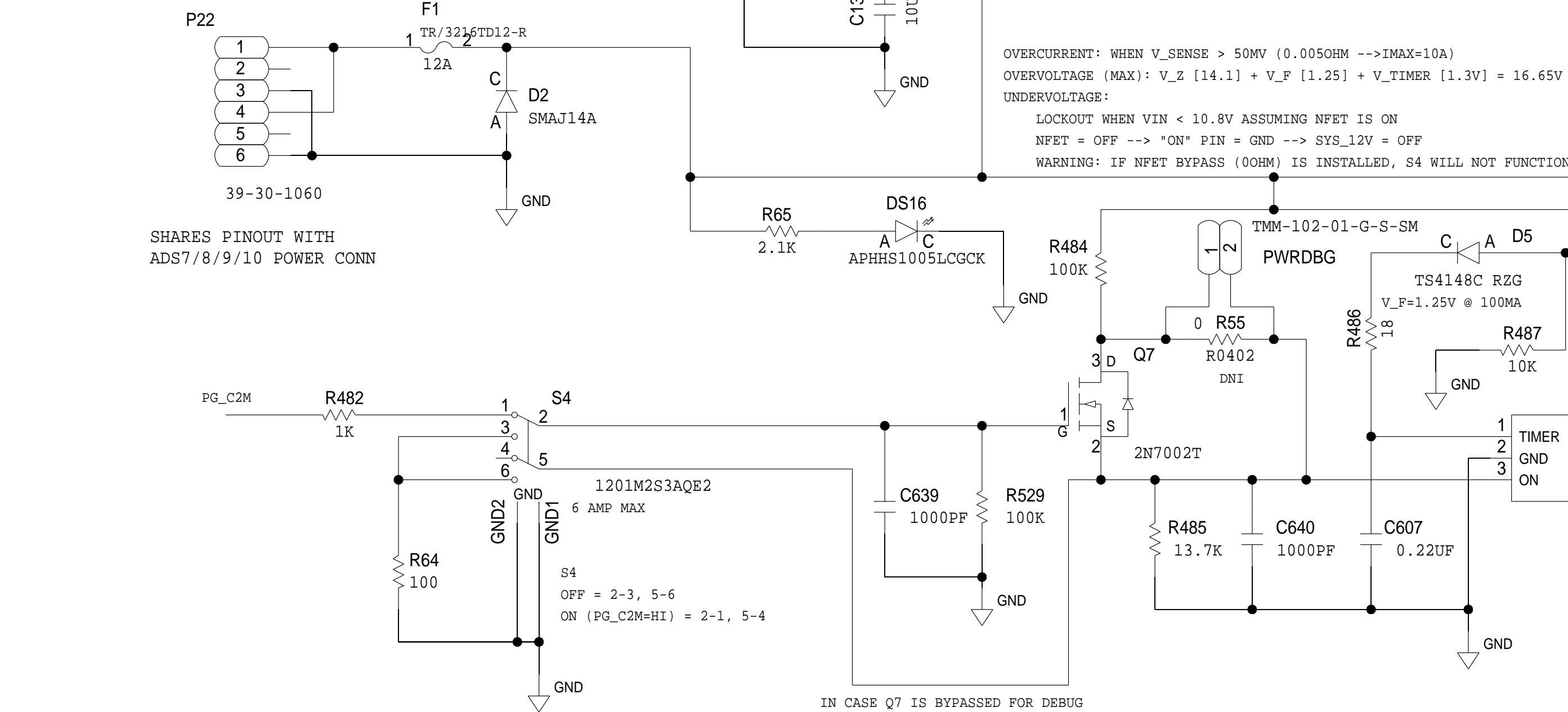
SUPPLIES: EXTERNAL SUPPLY INPUTS, LED INDICATORS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

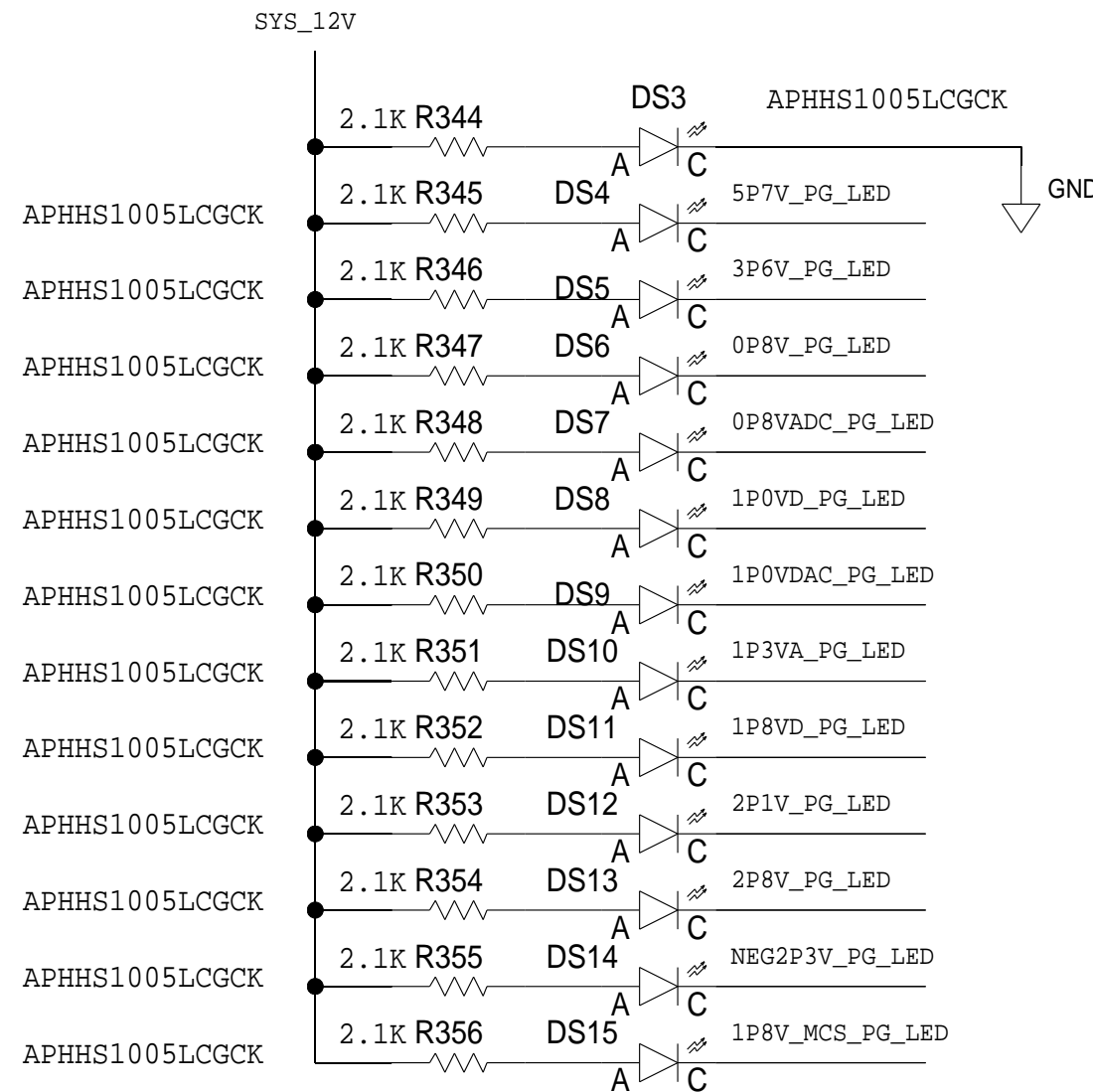
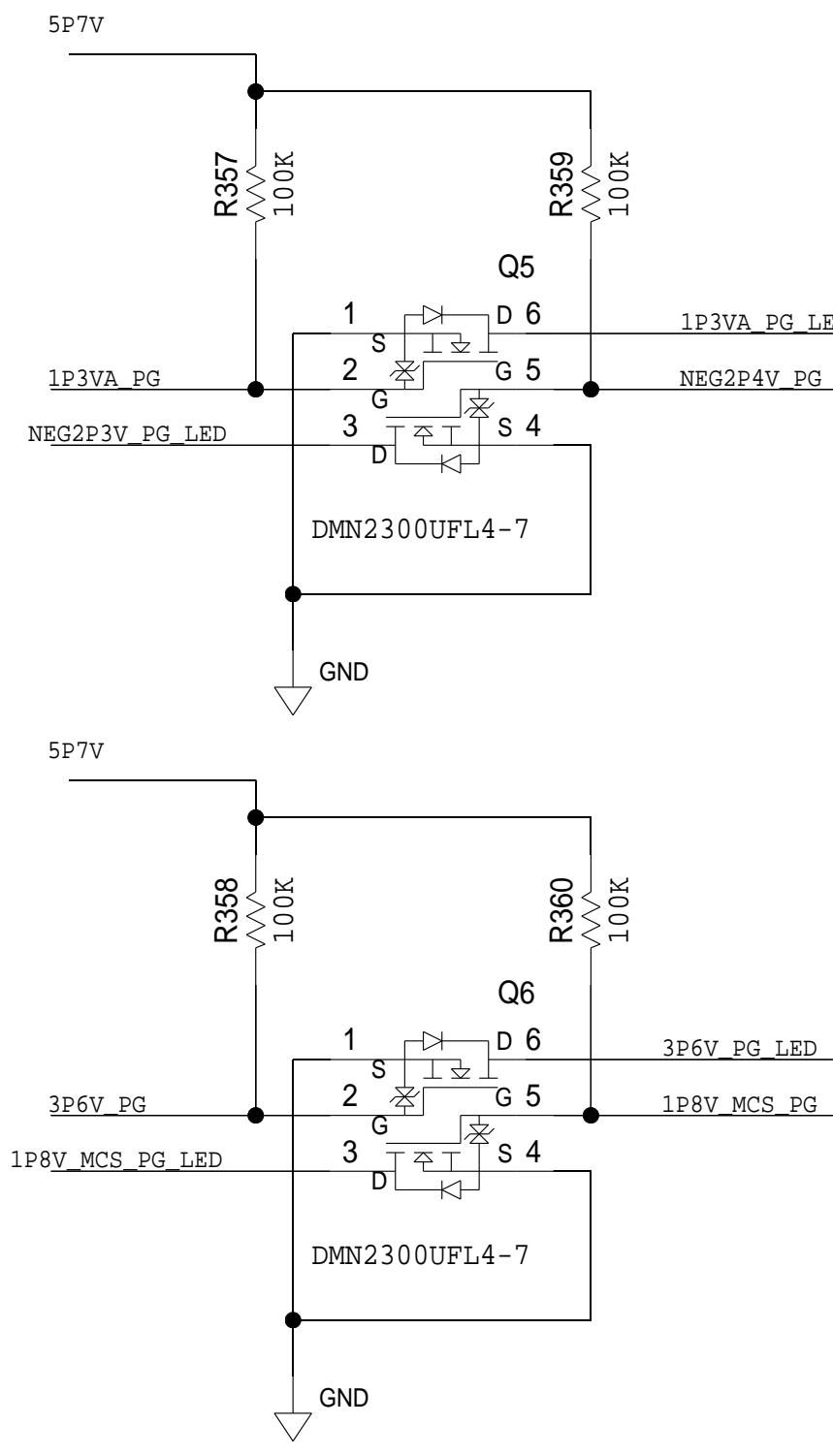
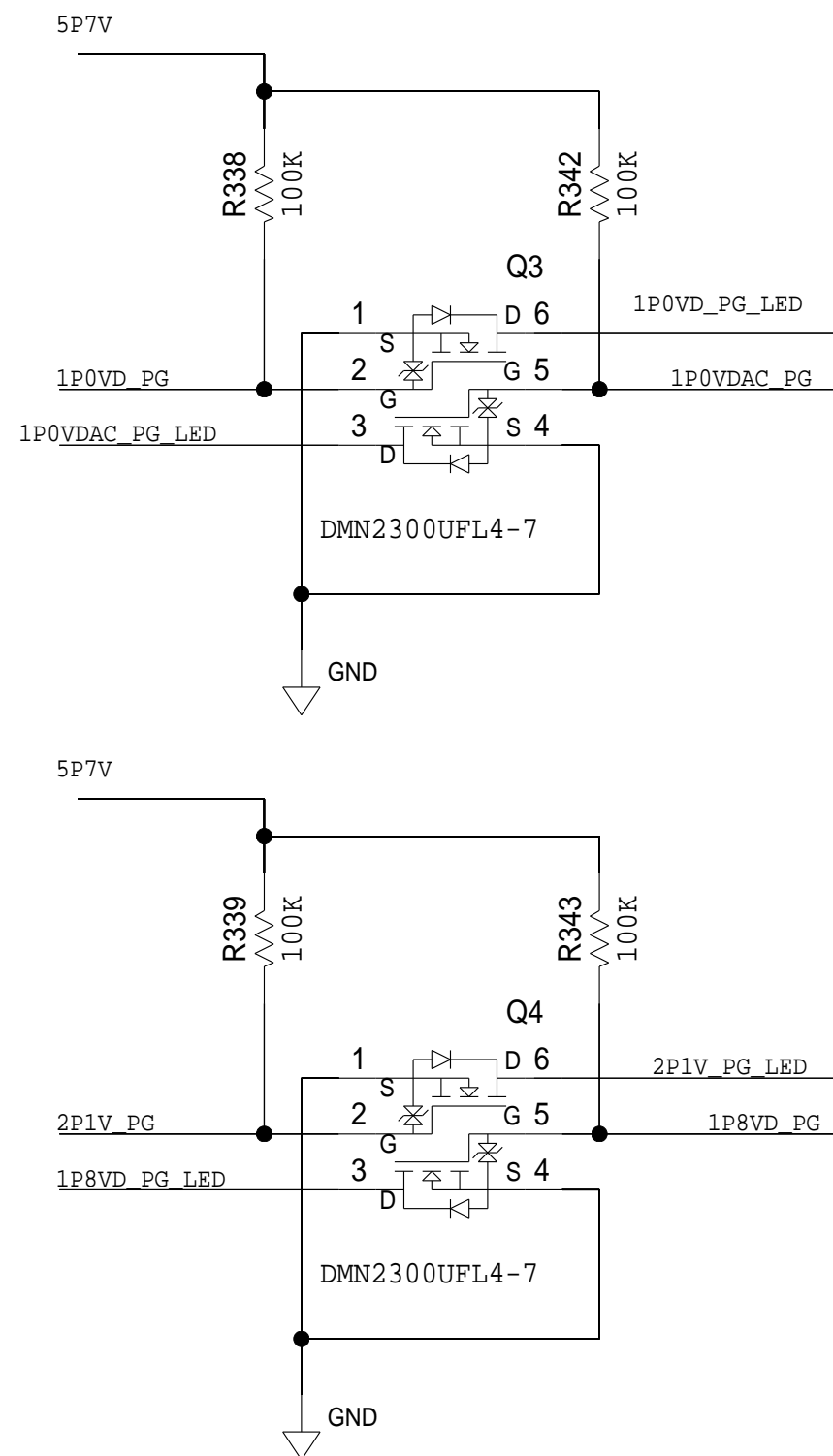
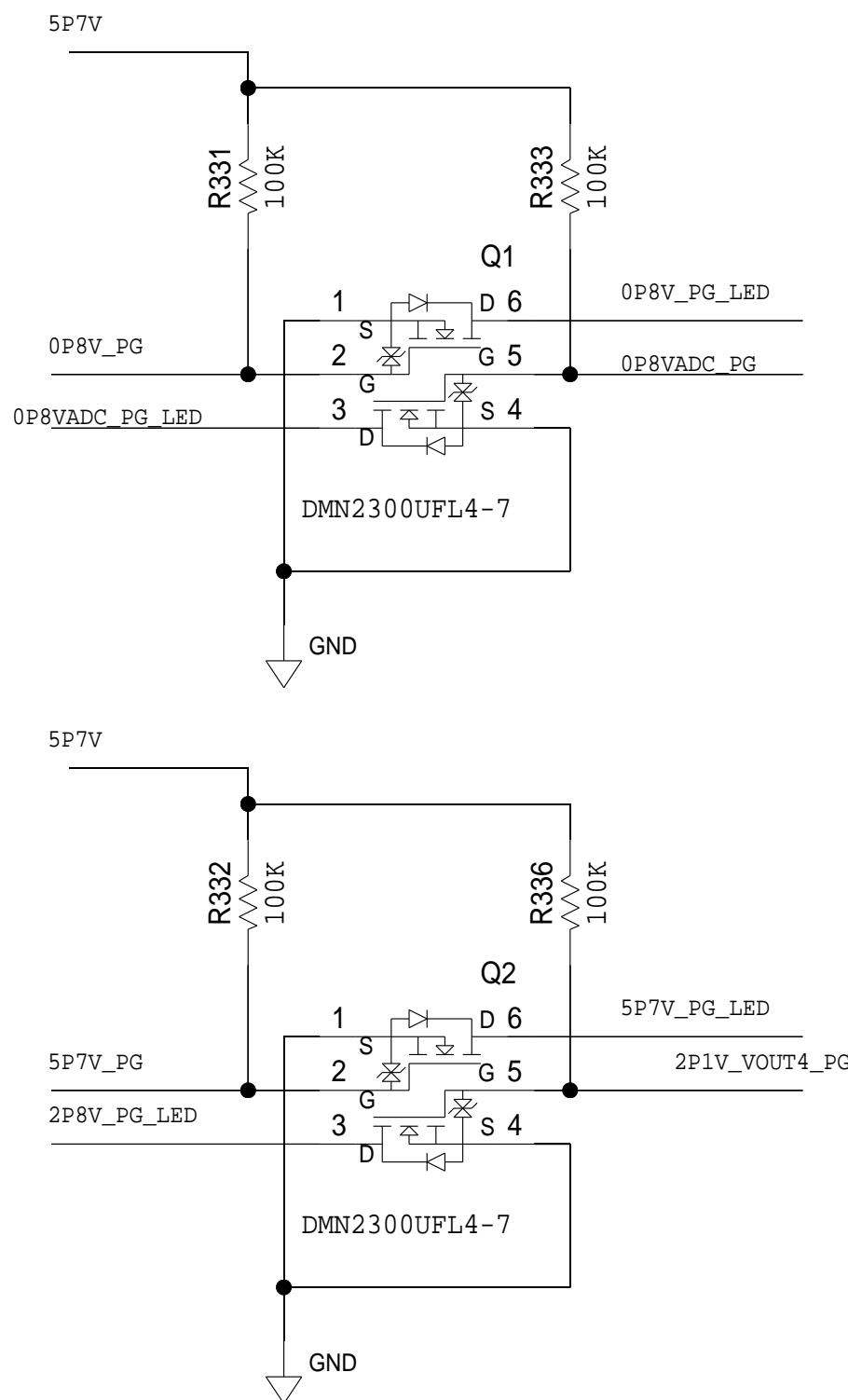
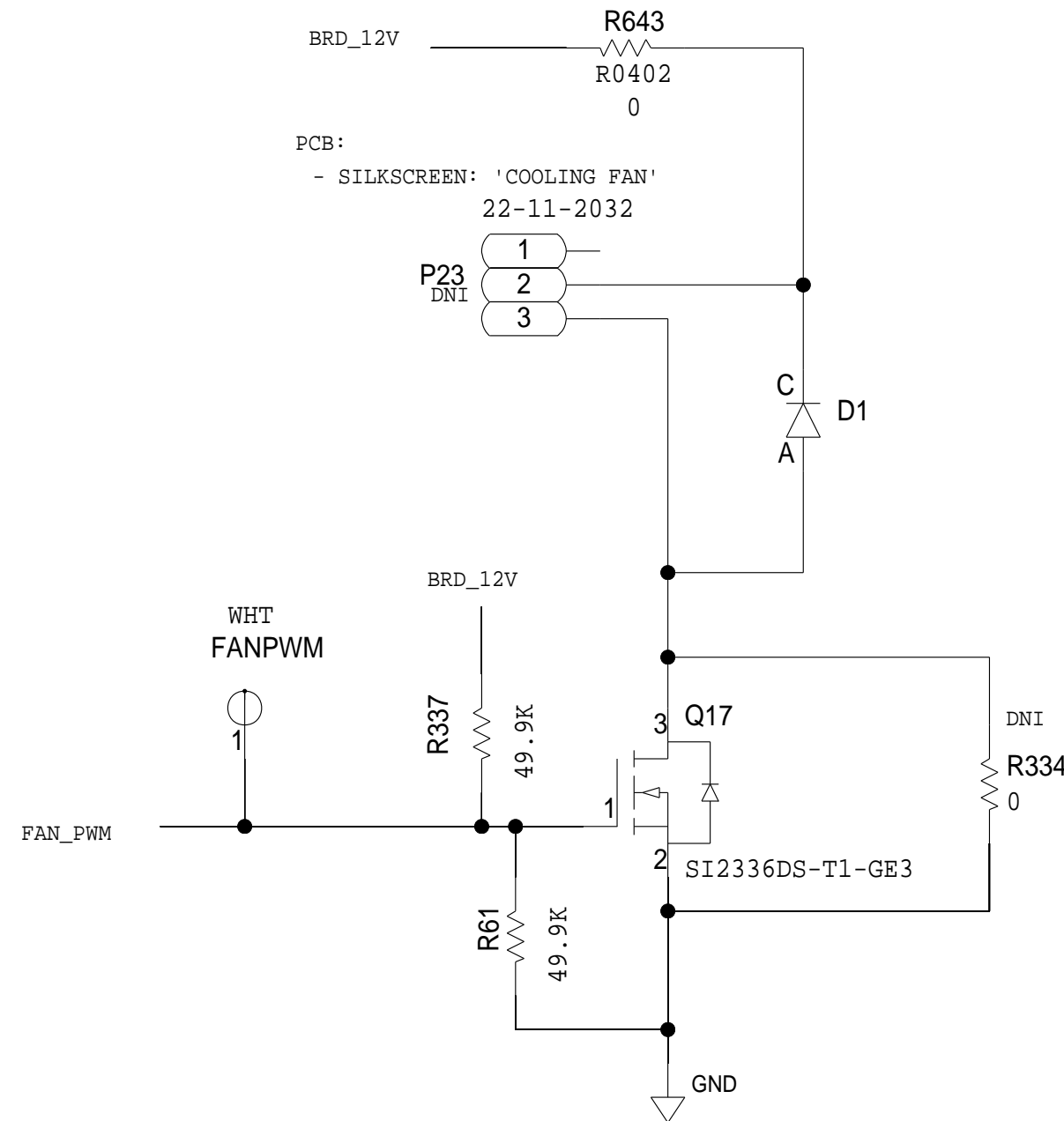
ADS10: 10.0A MAX
FMC_VADJ

ADS10: 5.0A MAX
FMC_3P3V

MAX NOMINAL: 8.4A
DO NOT EXCEED 10A CONT - WILL TRIP OC PROT



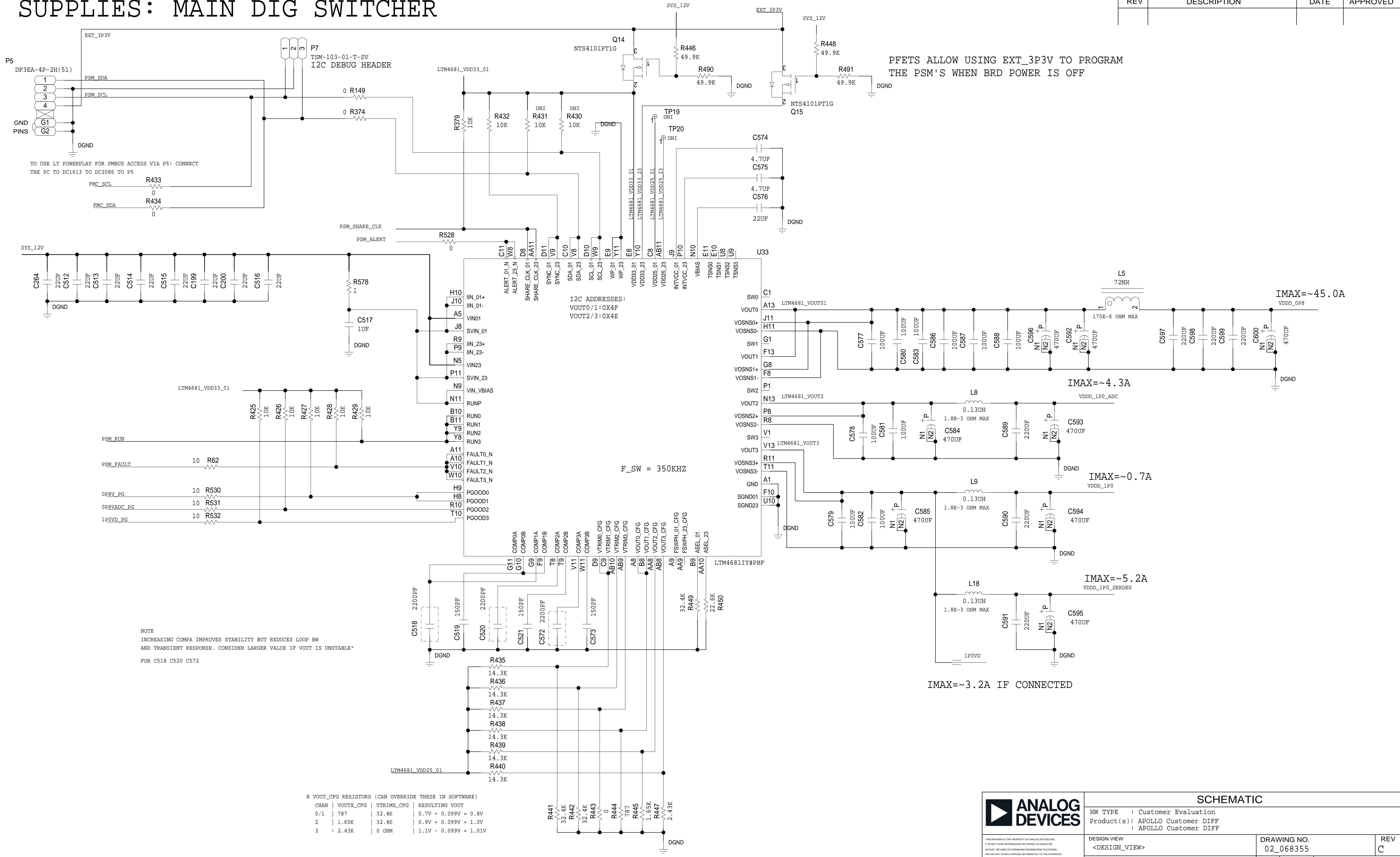
FAN CONTROL



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SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 14 OF 32

SUPPLIES: MAIN DIG SWITCHER

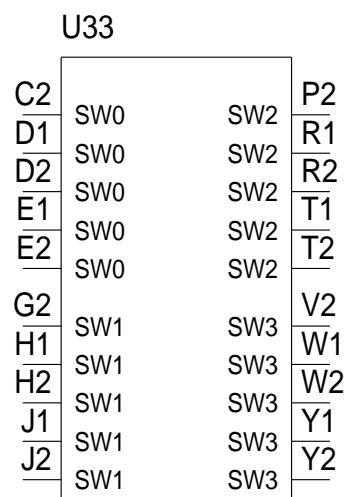
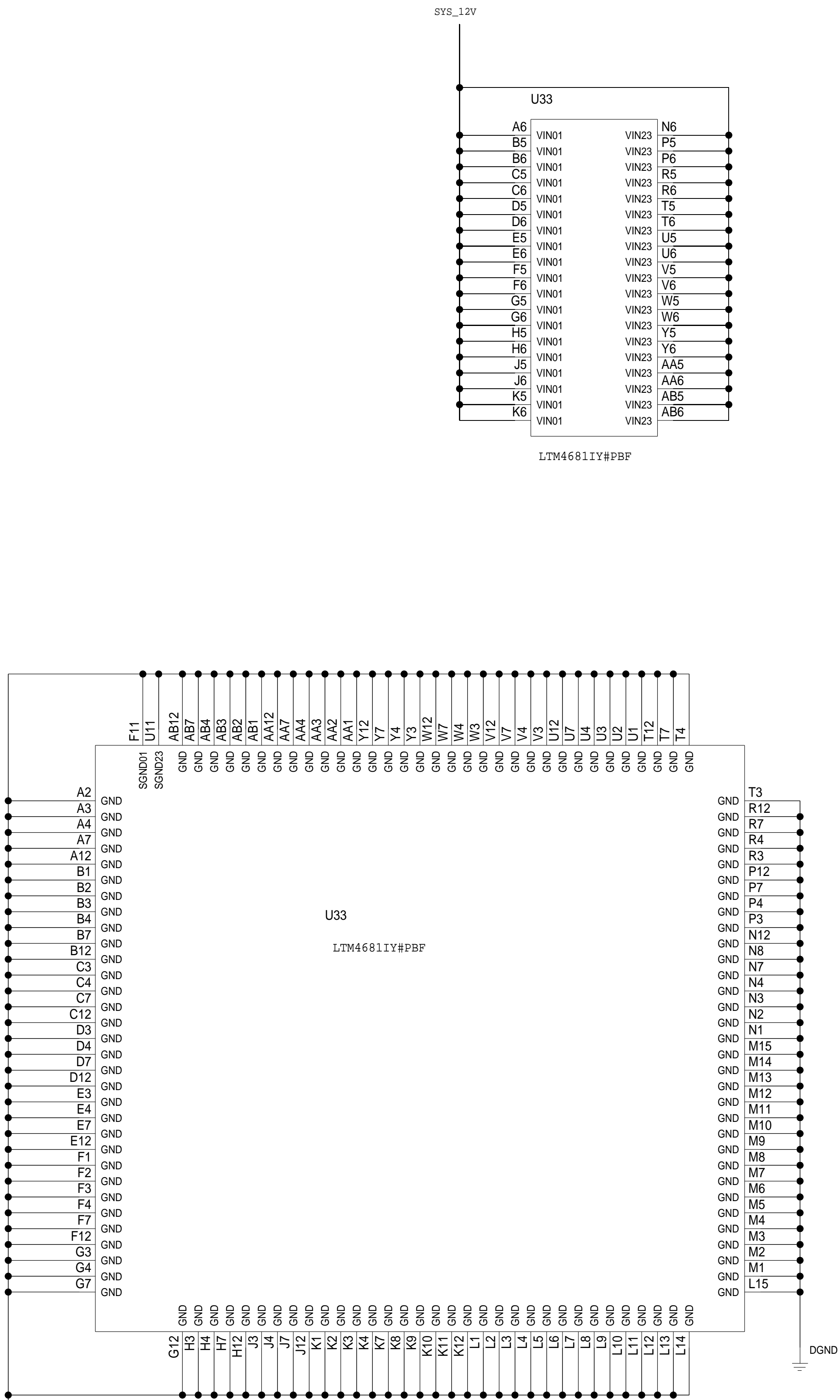


	SCHEMATIC			
	HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
	DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
	PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 15 OF 32

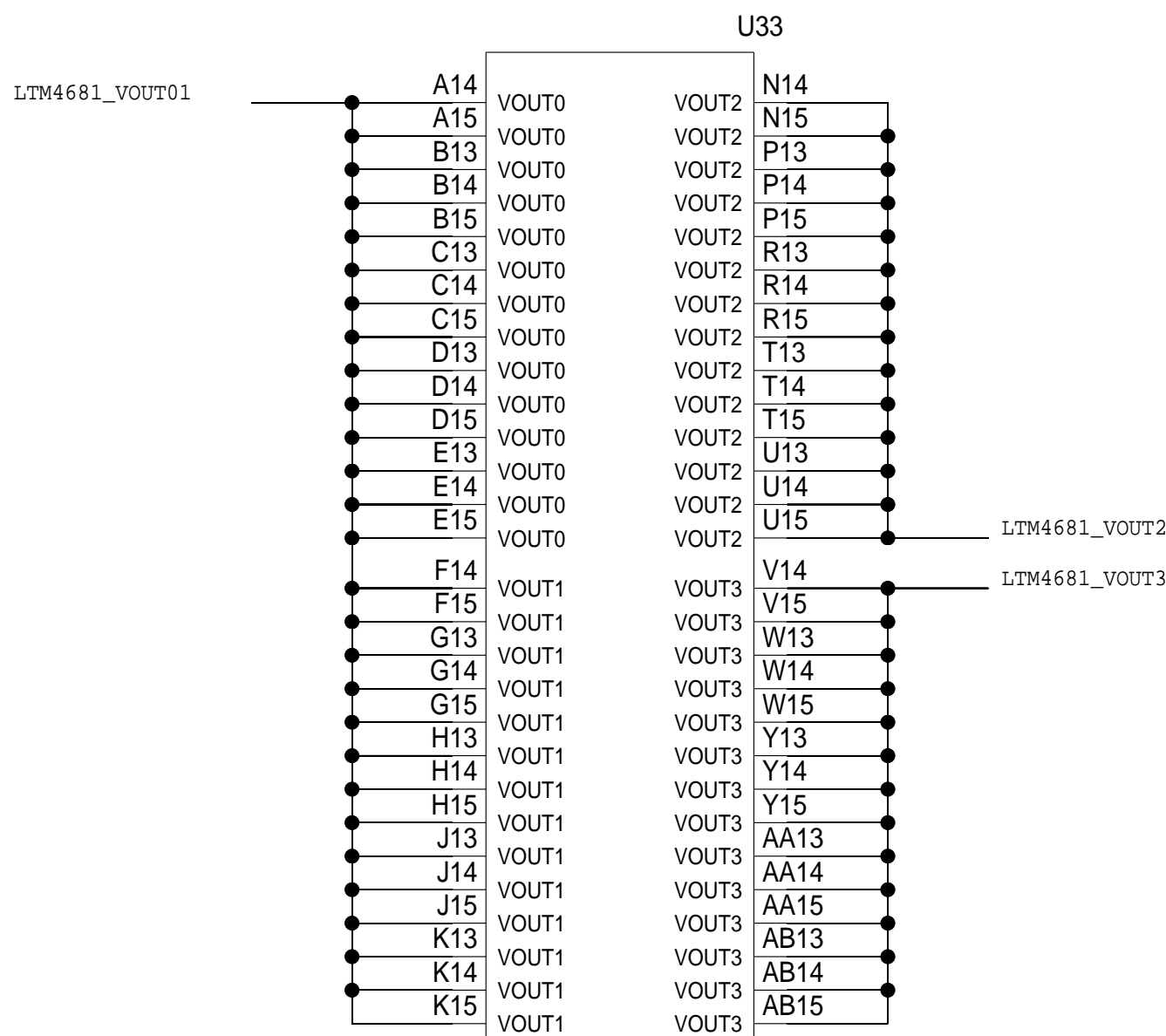
LTM4681

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

SW (N) PINS CAN STAY NC



LTM4681IY#PBF



LTM4681IY#PBF



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SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 16 OF 32

SUPPLIES: OTHER DIG SWITCHER/S (NOTE DIFFERENT GNDS)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

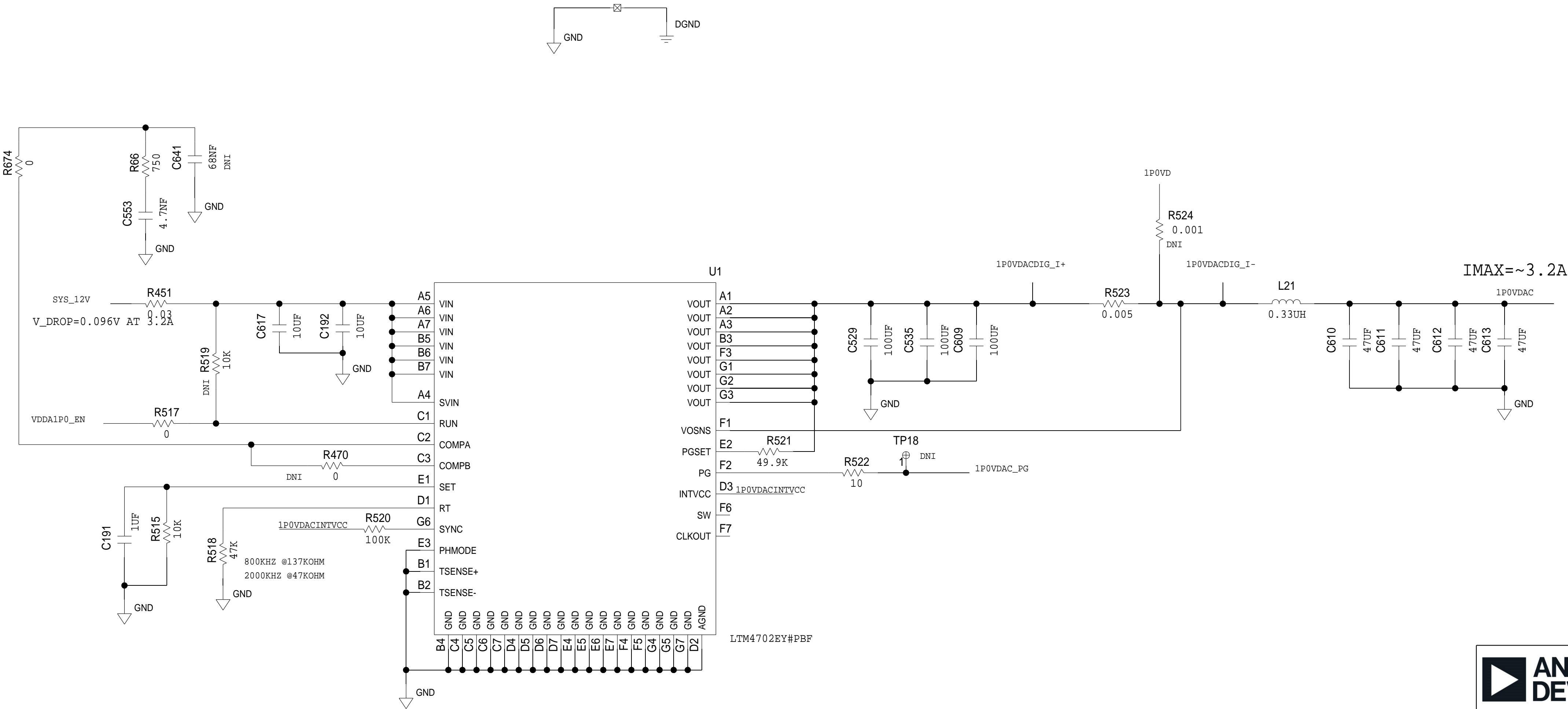
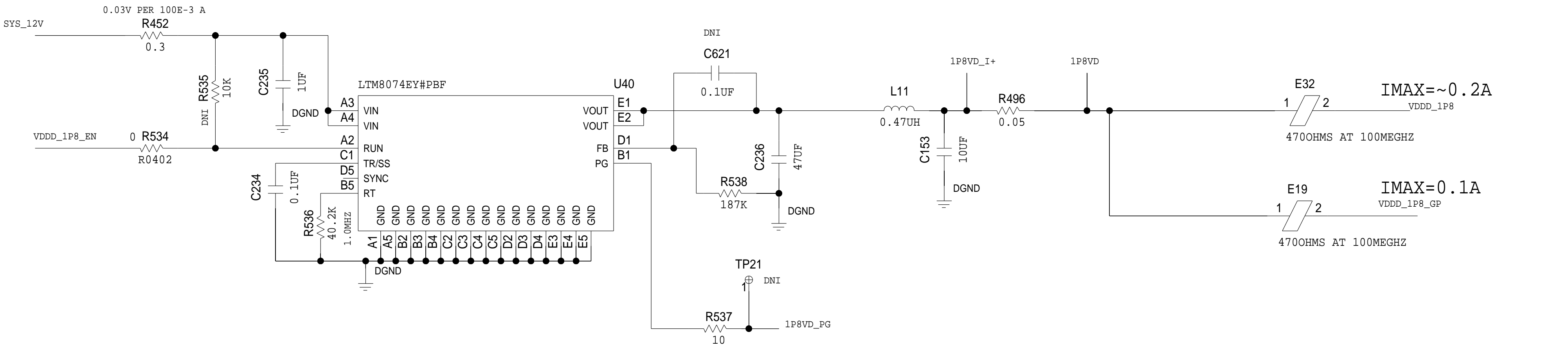
NOTE

MAKE SURE TO REMOVE R534

IF R535 IS INSTALLED:LTM8051 SS/TK

PIN, WHICH SHARES THE VDD_1P8_EN SIGNAL,

IS LIMITED TO 4V ABS MAX.



SCHEMATIC

HW TYPE : Customer Evaluation

Product(s): APOLLO Customer DIFF

: APOLLO Customer DIFF

DESIGN VIEW

<DESIGN_VIEW>

DRAWING NO.

02_068355

REV

C

PTD ENGINEER

-

SIZE

D

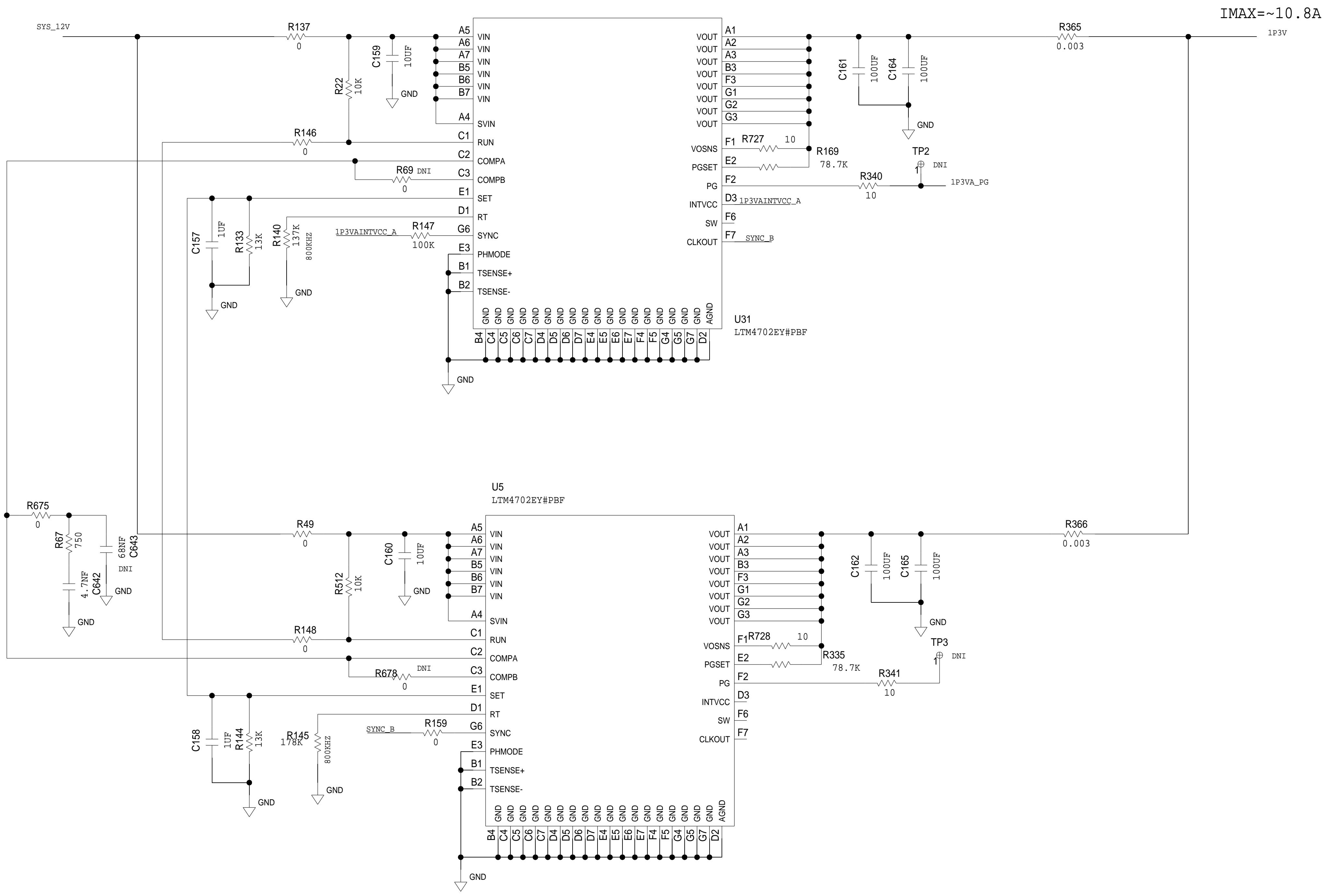
SCALE

1:1

SHEET 17 OF 32

SUPPLIES: LDO SWITCHERS - PAGE 1

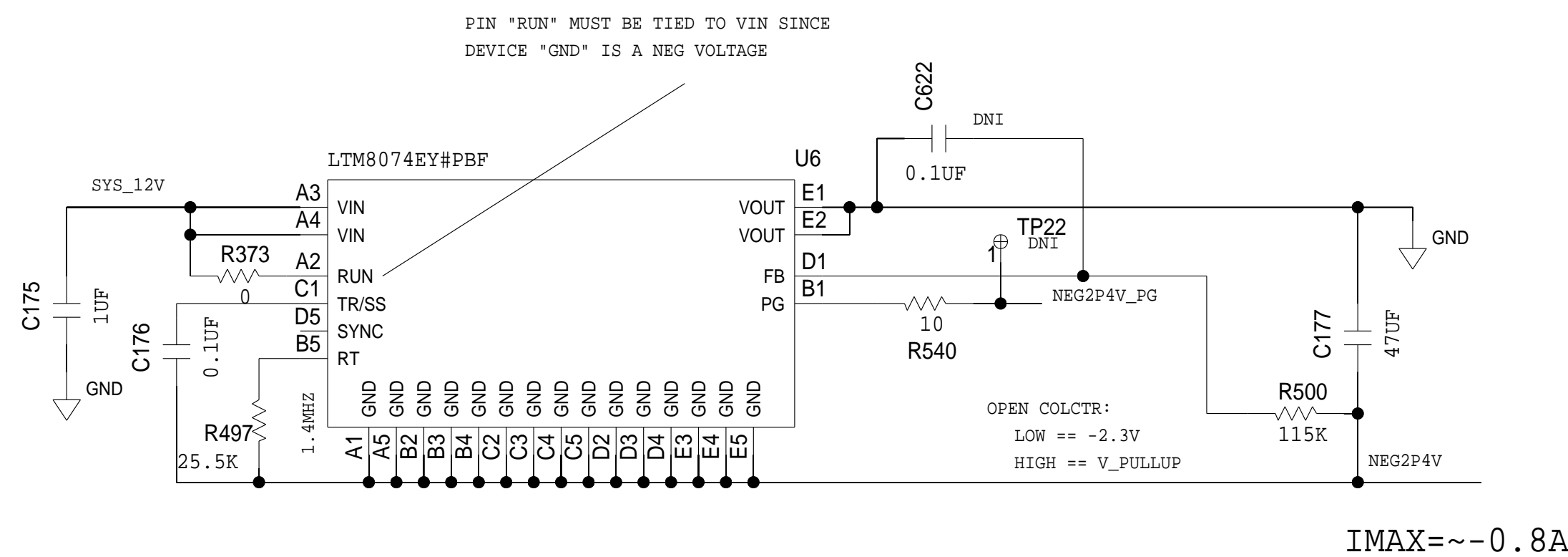
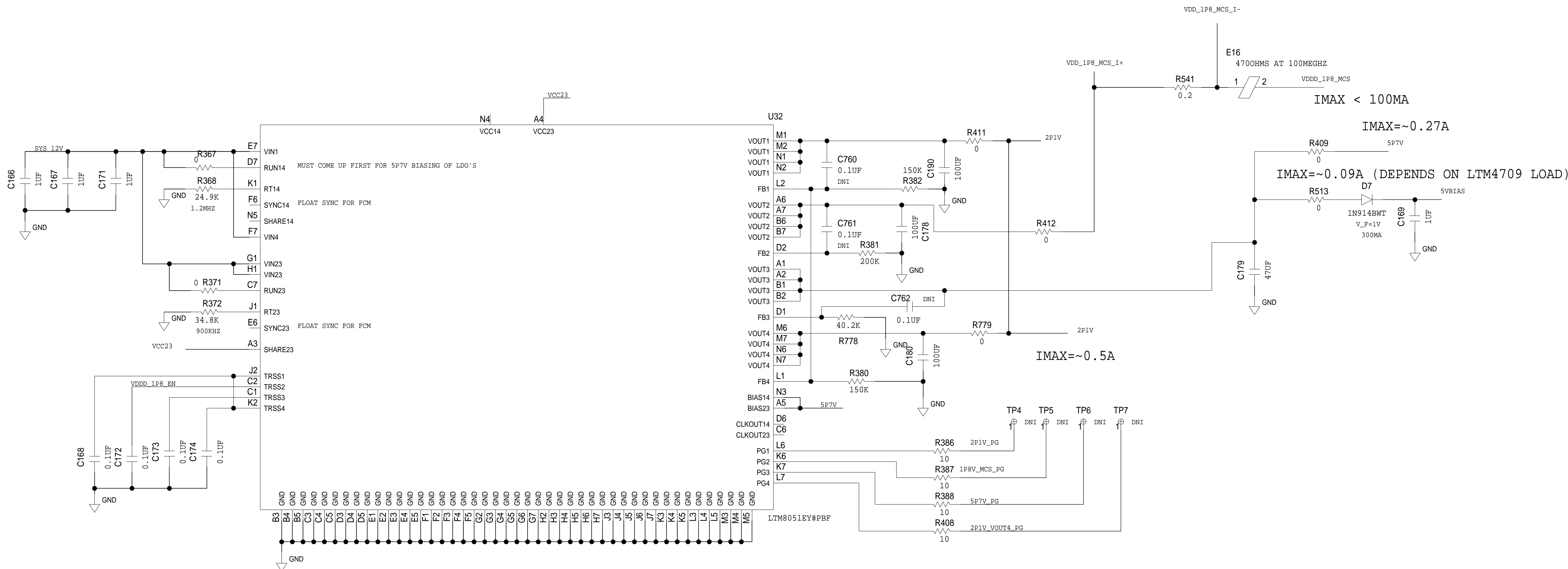
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



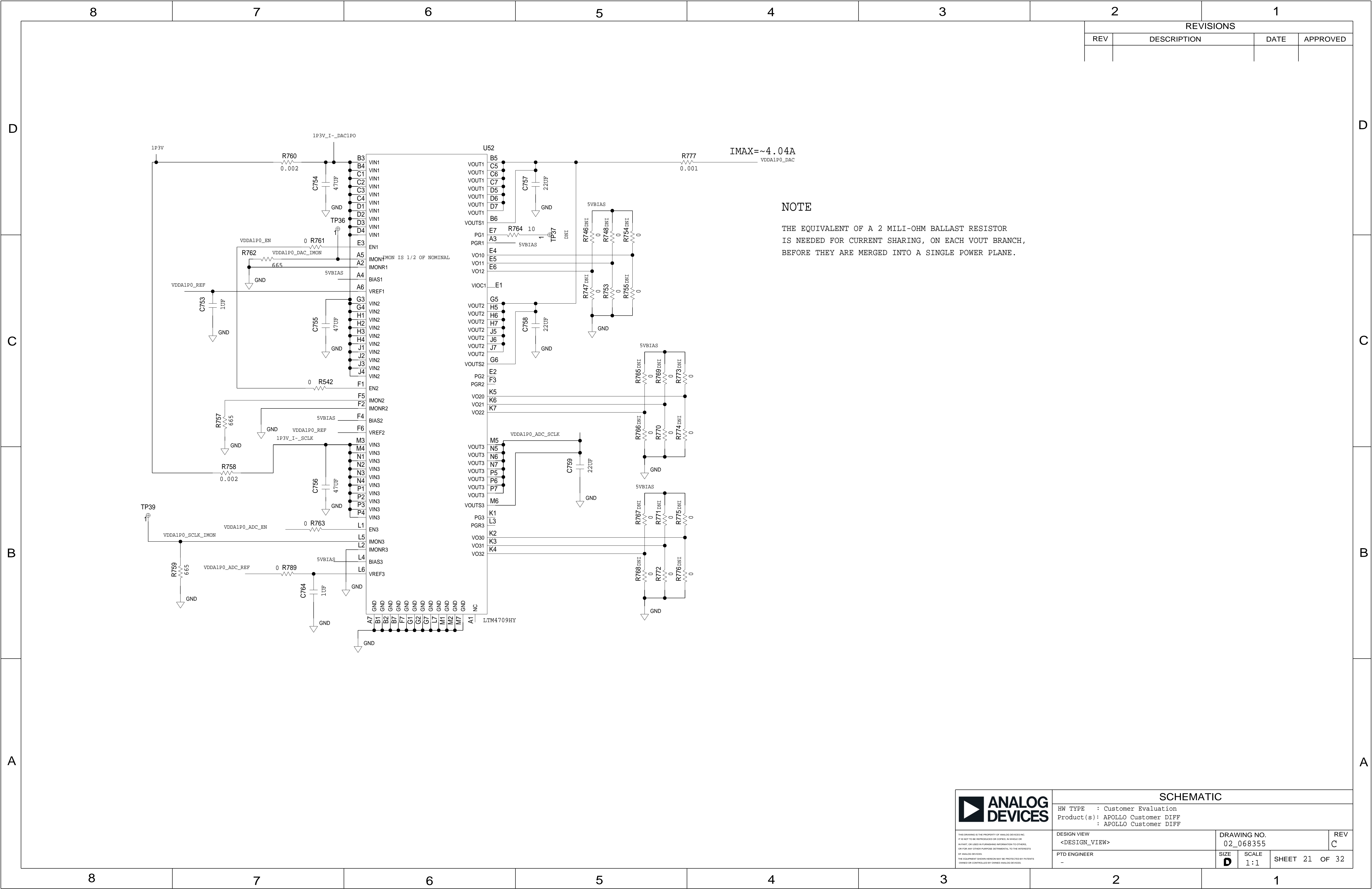
SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 18 OF 32

SUPPLIES: LDO SWITCHERS - PAGE 2

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 19 OF 32



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SCHEMATIC

HW TYPE : Customer Evaluation
Product(s): APOLLO Customer DIFF
: APOLLO Customer DIFF

DESIGN VIEW
<DESIGN_VIEW>

PTD ENGINEER
-

DRAWING NO.
02_068355

REV
C

SIZE
D

SCALE
1:1

SHEET 21 OF 32

CLOCKING SUPPLIES

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

D

D

C

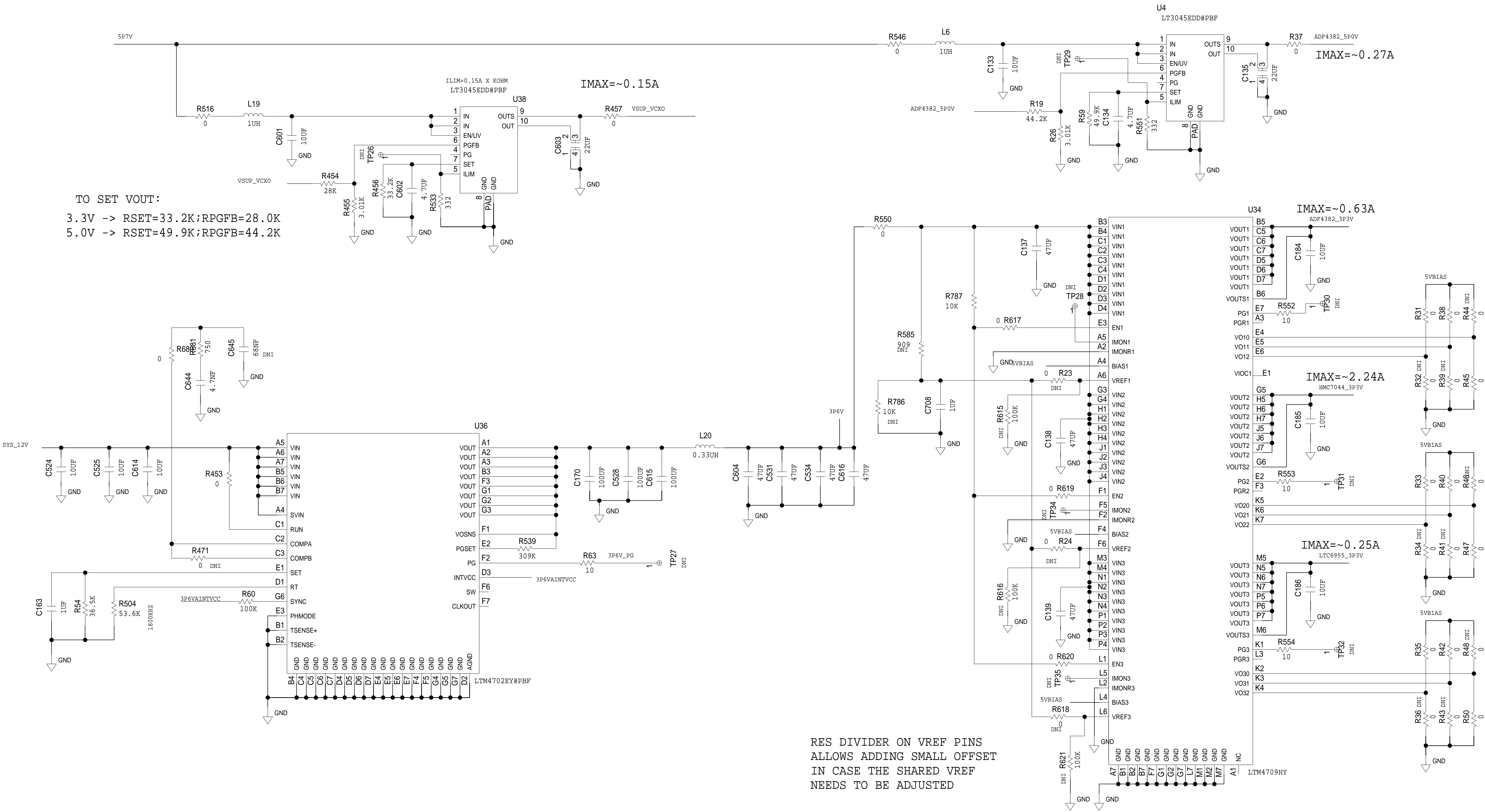
C

B

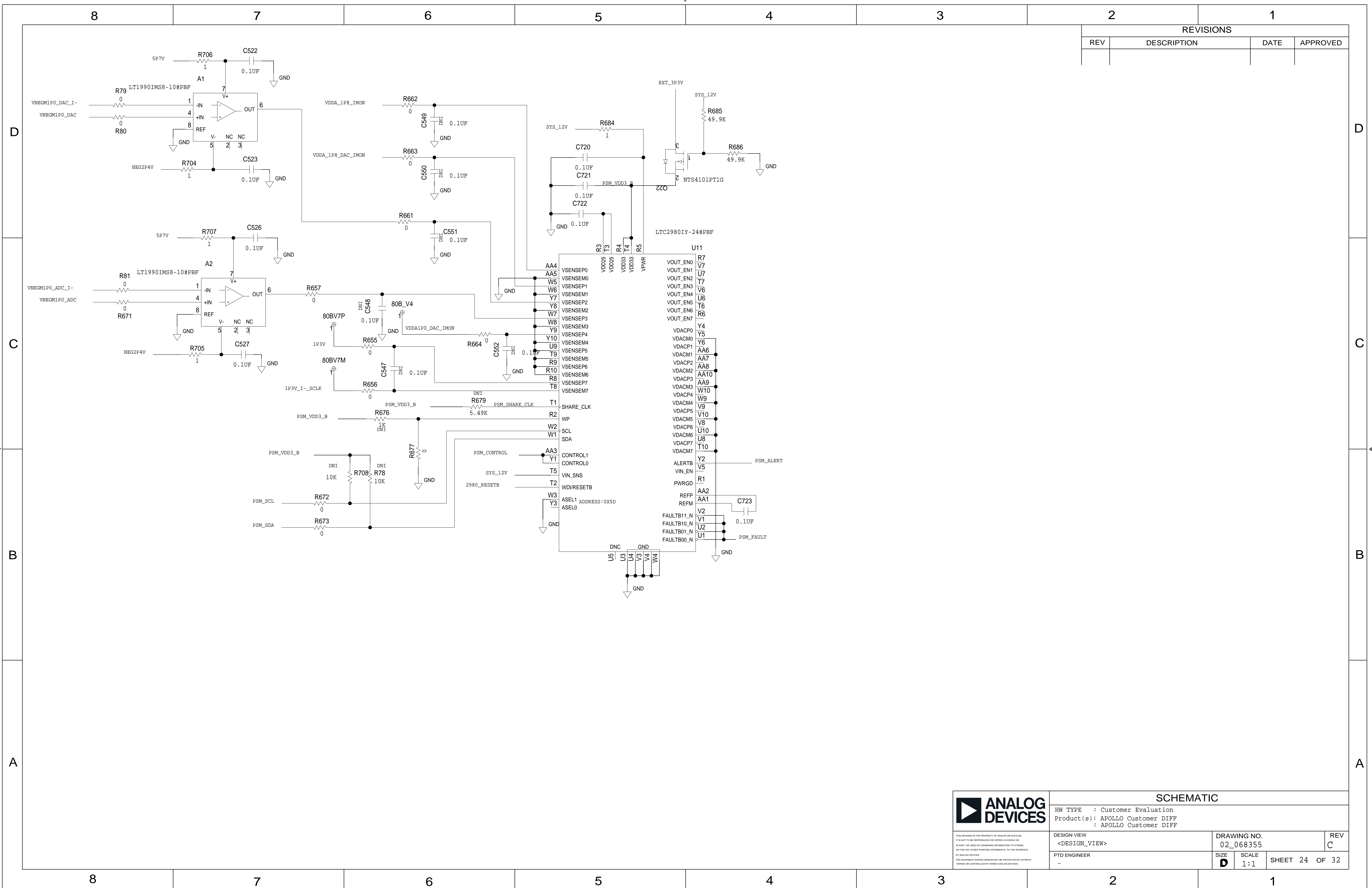
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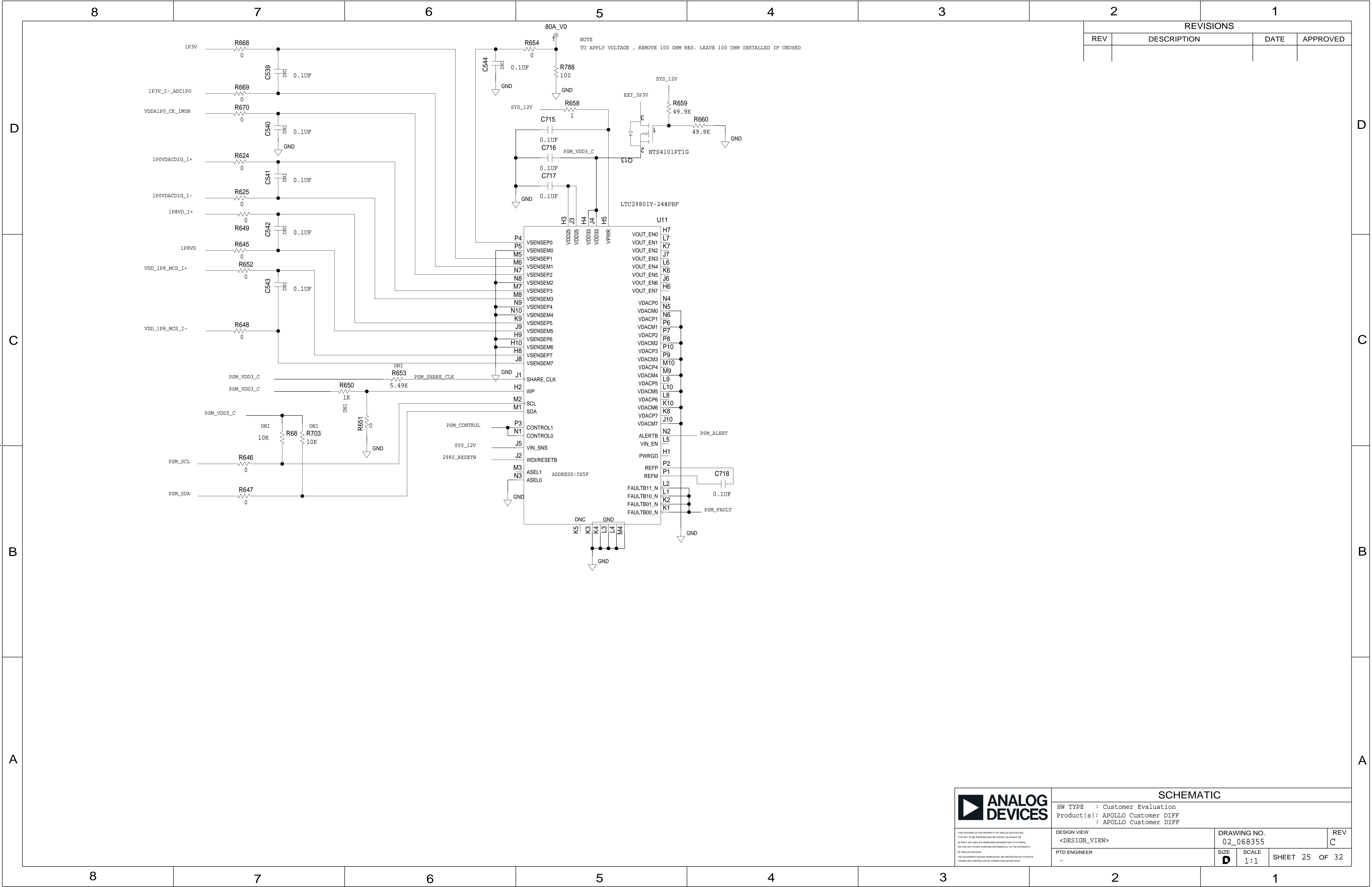
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A



SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 22 OF 32





REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



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SCHEMATIC			
HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_068355	REV C	
PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 25 OF 32

FMC_PLUS CONNECTOR

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
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D

D

C

C

B

B

A

A



SCHEMATIC

HW TYPE : Customer Evaluation
Product(s): APOLLO Customer DIFF
: APOLLO Customer DIFF

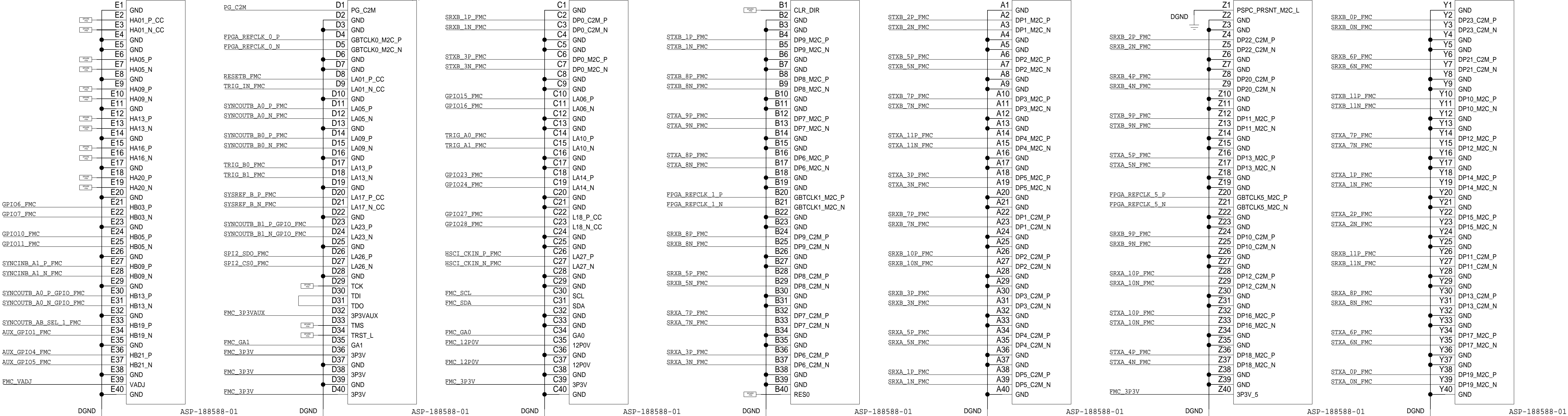
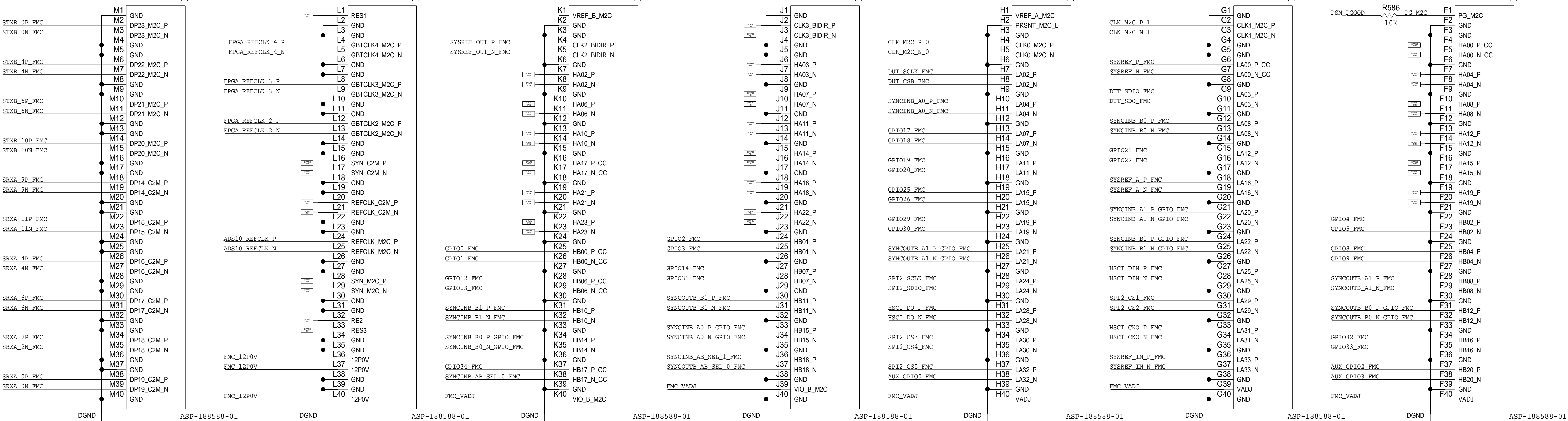
DESIGN VIEW
<DESIGN_VIEW>

PTD ENGINEER
-

DRAWING NO.
02_068355

REV
C

SIZE	SCALE	SHEET	OF
D	1:1	26	32



8

7

6

5

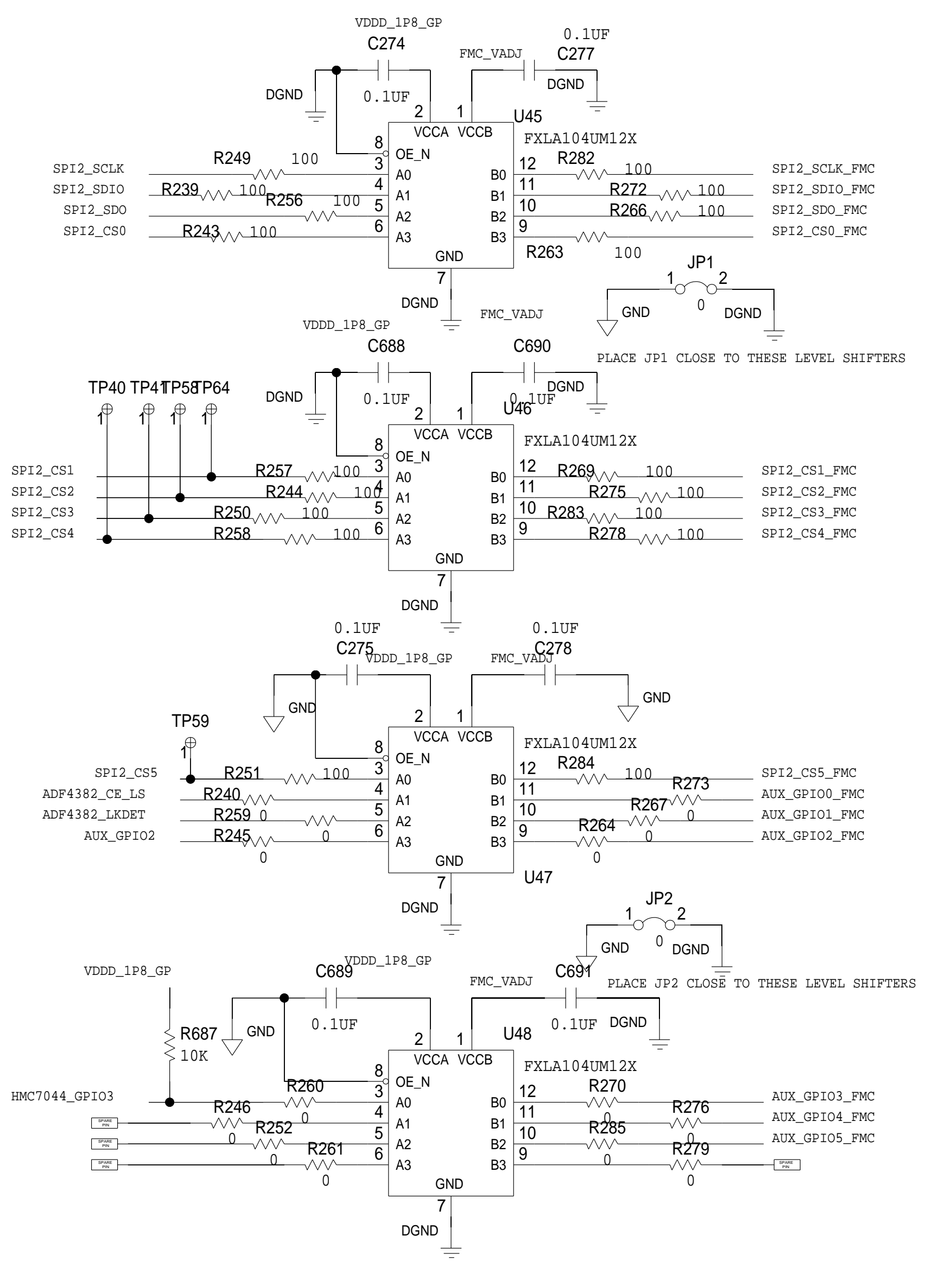
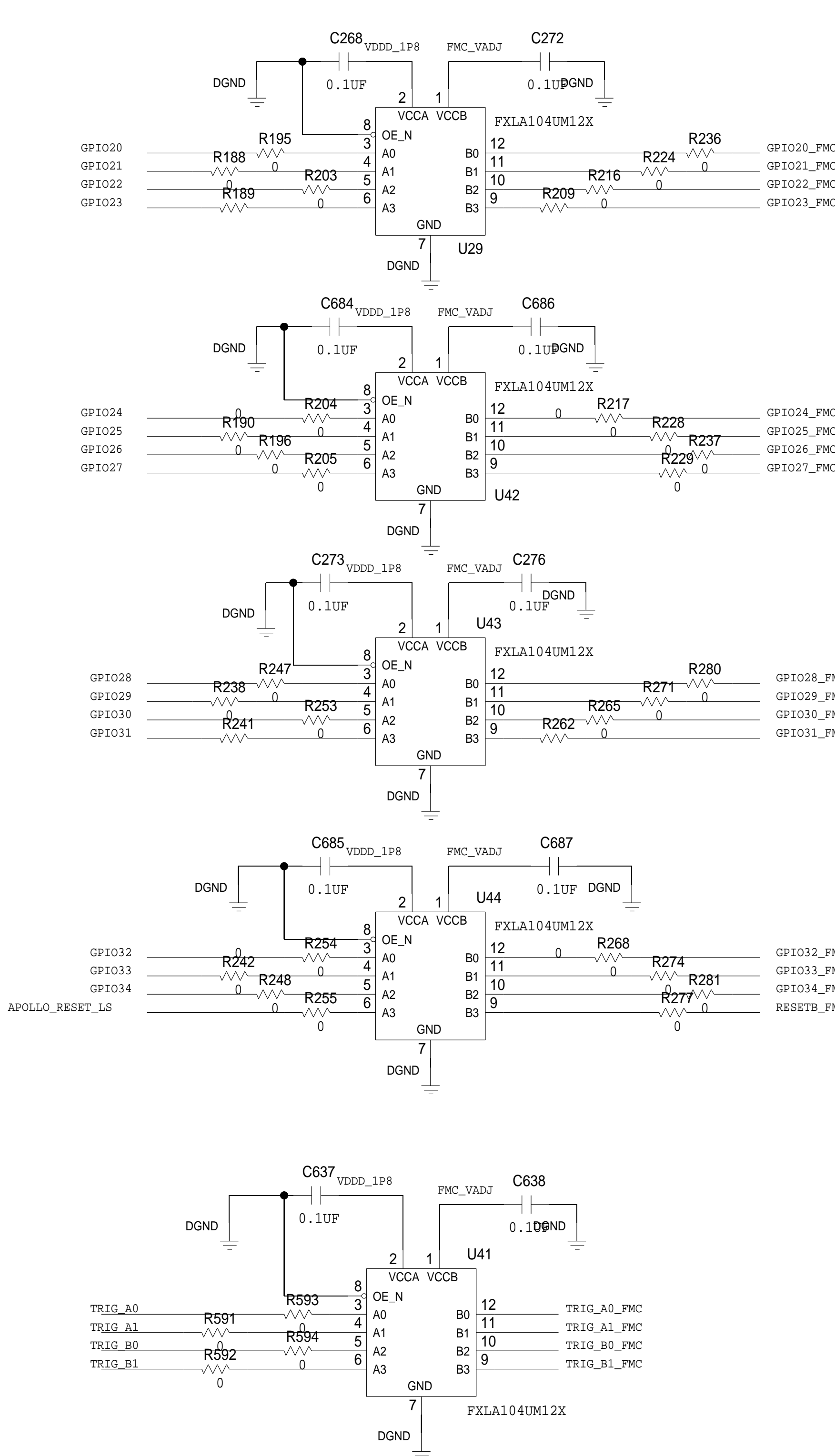
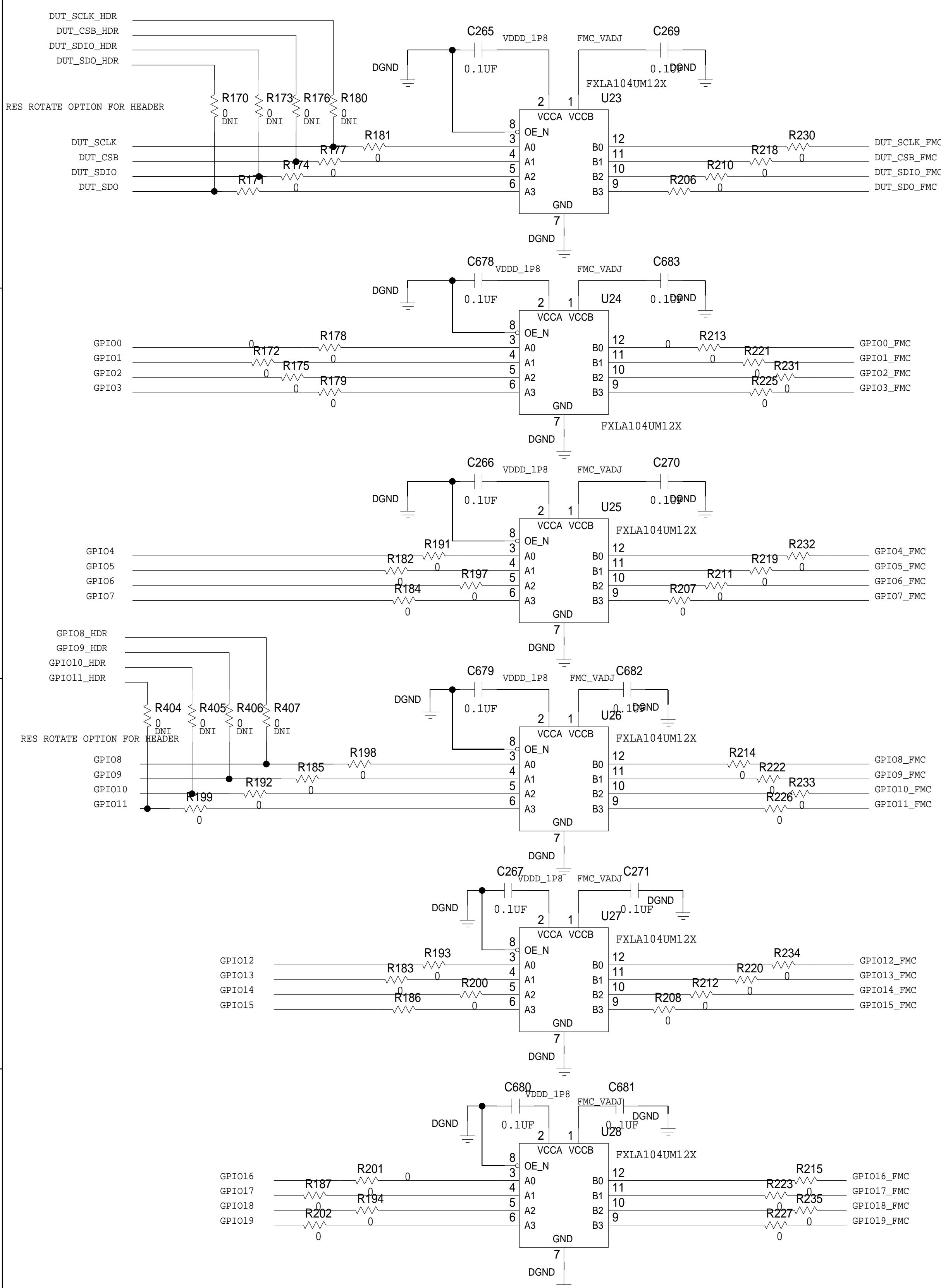
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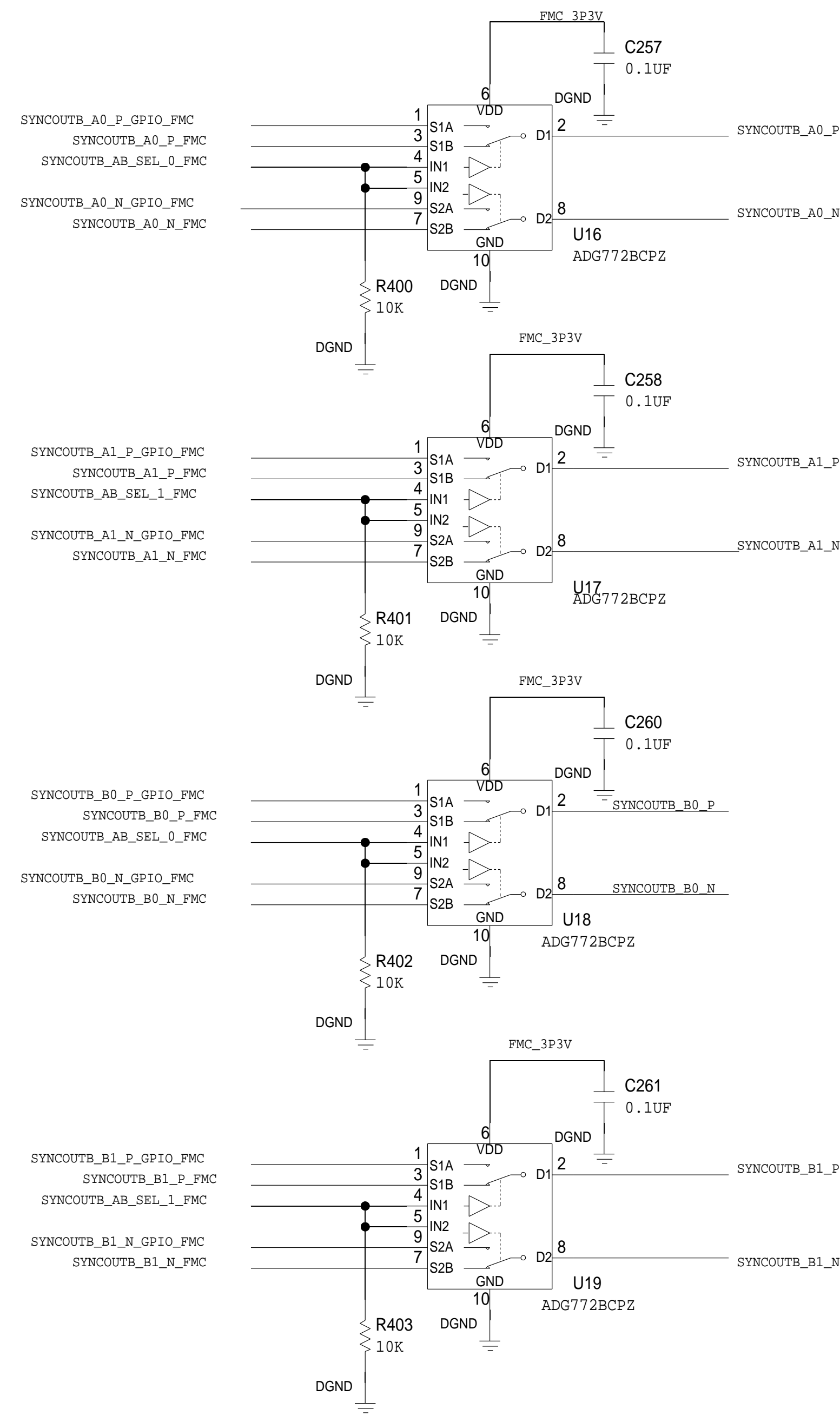
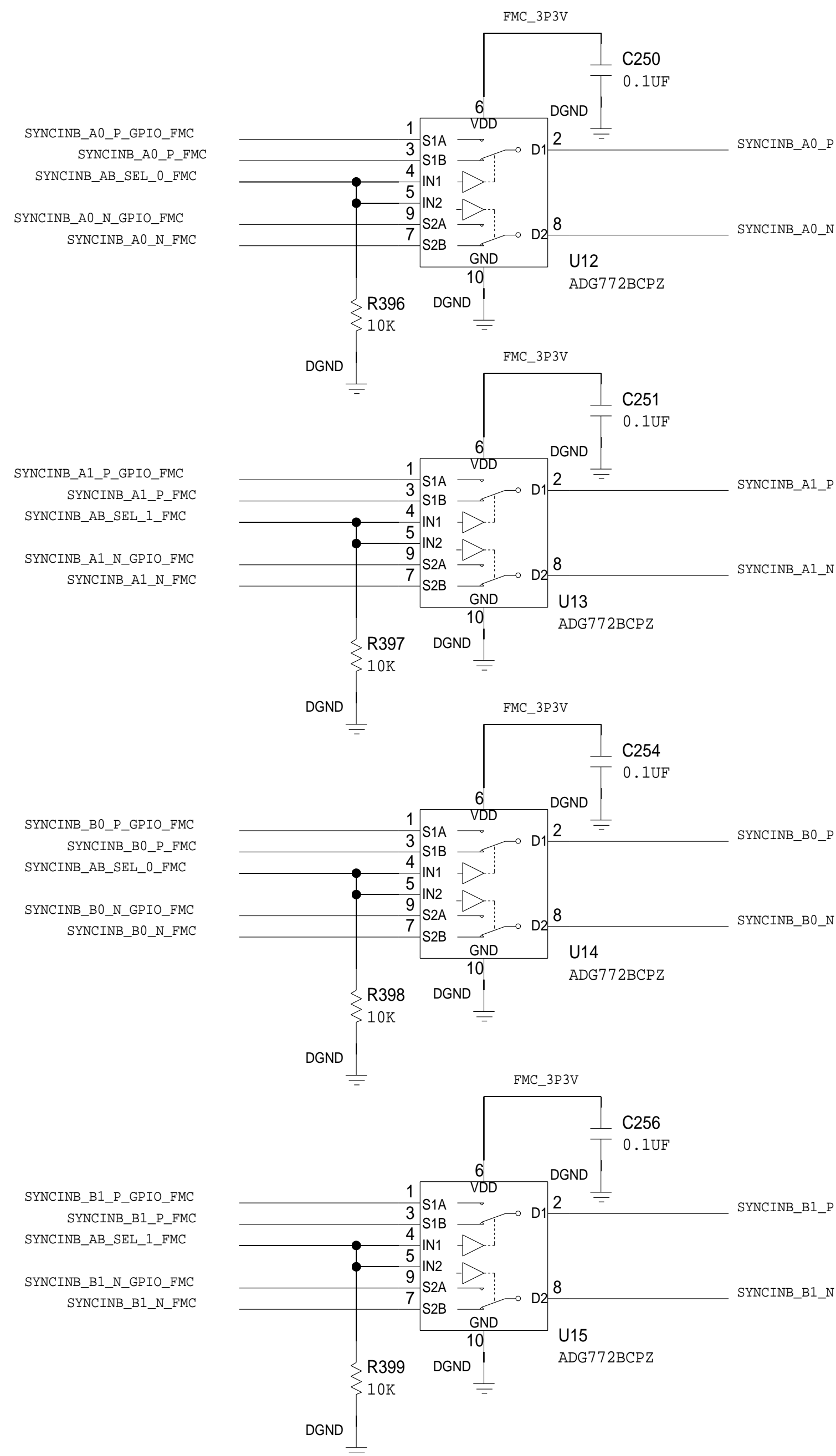
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LEVEL SHIFTERS



	SCHEMATIC			
	HW TYPE : Customer Evaluation Product(s): APOLLO Customer DIFF : APOLLO Customer DIFF			
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	PTD ENGINEER -	SIZE D	SCALE 1:1	SHEET 27 OF 32

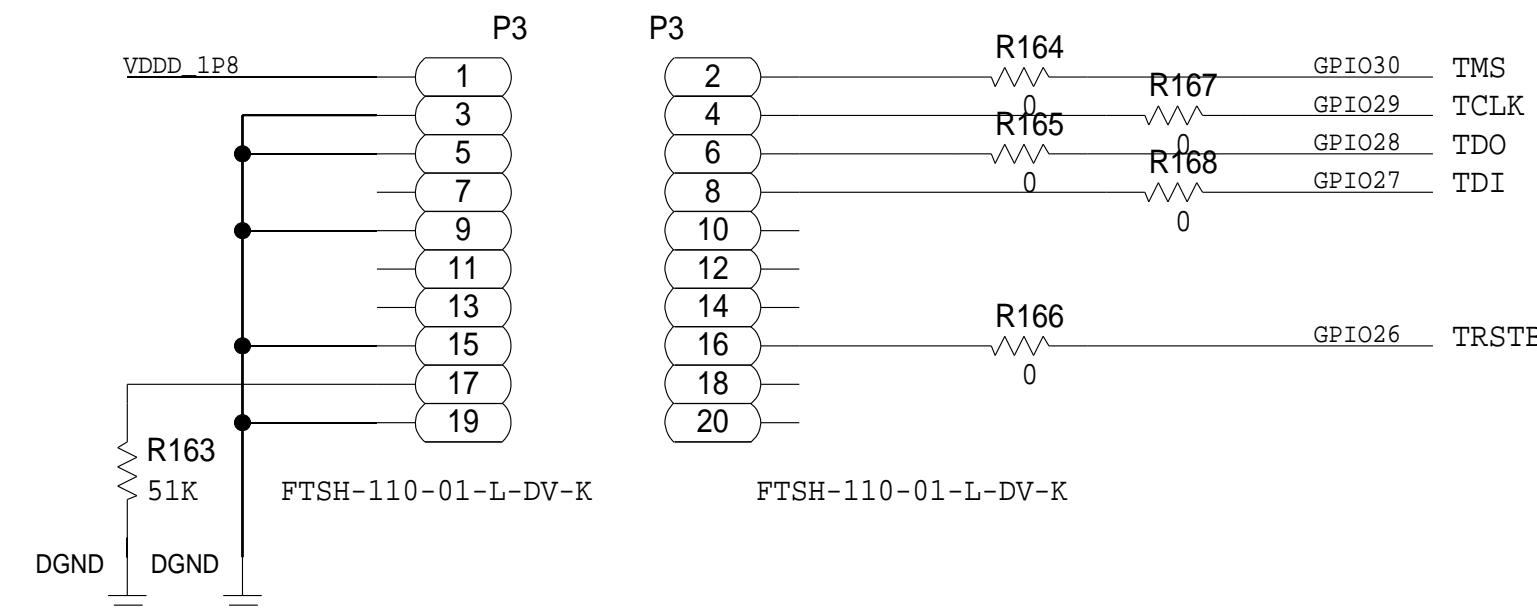
SYNCINB/SYNCOUTB LVDS <--> CMOS CHANGEOVER OPTIONS



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		HW TYPE : Customer Evaluation Product(s) : APOLLO Customer DIFF : APOLLO Customer DIFF			
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PTD ENGINEER -		SIZE D	SCALE 1:1	REV C	
				SHEET 28 OF 32	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

JTAG




UART <--> USB

PLACE ON BOT LYR

The schematic diagram illustrates the UART to USB interface circuit. It includes the following components and connections:

- USB Connector (P4):** A 9-pin connector with pins 1 (USB_DN), 2 (USB_DP), 3 (USB_DP), 4 (GND), 5 (GND), 6 (SHIELD PIN), 7 (GND), 8 (GND), and 9 (GND).
- Capacitors:**
 - C222 (1uF) and C224 (0.01uF) are connected to the USB_DN and USB_DP lines, respectively, to ground (DGND).
 - C142 (0.1uF) is connected to the VUSB line to ground (DGND).
 - C225 (1uF) is connected to the VDD_1P8 line to ground (DGND).
 - C124 (0.1uF) is connected to the GND pin of the U21 connector to ground (DGND).
- ICs:**
 - U21 (USBULC6-2M6):** A USB-to-UART bridge IC. Its I/O1 pin is connected to USB_DP, I/O2 pin to USB_DN, and its GND pin to ground (DGND).
 - U22 (CP2105-F01-GM):** A UART-to-USB bridge IC. Its VDD pin is connected to VDD_1P8, VIO pin to VUSB, and REGIN pin to GND. Its I/O pins are connected to the microcontroller (CP2105) and the UART module (AD9084).
- Resistor:** R469 (10K) is connected between the VDD_1P8 line and the UART_RST pin of the AD9084 module.
- Microcontroller (CP2105):** A CP2105-F01-GM module that interfaces the UART module with the USB connector.
- UART Module (AD9084):** A module that provides the UART interface to the microcontroller.

[illegible]

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	HW TYPE : Customer Evaluation Product(s) : APOLLO Customer DIFF : APOLLO Customer DIFF				
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	PTD ENGINEER —		SIZE D	SCALE 1:1	SHEET 29 OF 32

