

8		7		6		5		4		3		2		1																										
D	<div>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 PURPOSE DETRIMENTAL TO THE INTERESTS OF ANALOG DEVICES. THE EQUIPMENT SHOWN HEREON MAY BE PROTECTED BY PATENTS OWNED OR CONTROLLED BY ANALOG DEVICES.</div>					<div>JUMPER TABLE</div> <table><tr><td>JP#</td><td>ON</td><td>OFF</td></tr><tr><td>1</td><td></td><td></td></tr><tr><td>2</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td></tr><tr><td>4</td><td></td><td></td></tr><tr><td>5</td><td></td><td></td></tr></table>			JP#	ON	OFF	1			2			3			4			5													REVISIONS			
									JP#	ON	OFF																													
									1																															
2																																								
3																																								
4																																								
5																																								
REV	DESCRIPTION			DATE	APPROVED																																			
C	CHANGE AS PER ECR-099043			02/10/20	H.MIRONCZUK																																			
C	RELAY CONTROL CHART																																							
	CONTROL	CODE	DEVICE	FUNCTION	CONNECTOR																																			
B																																								
																					A						<div>TEMPLATE ENGINEER -</div> <div>HARDWARE SERVICES -</div> <div>HARDWARE SYSTEMS -</div> <div>TEST ENGINEER -</div> <div>COMPONENT ENGINEER -</div> <div>TEST PROCESS -</div> <div>HARDWARE RELEASE</div> <div>DESIGNER -</div> <div>PTD ENGINEER <PTD_ENGINEER></div> <div>CHECKER -</div> <div>DATE</div> <div>MASTER PROJECT TEMPLATE TBD</div> <div>PTD ENGINEER <PTD_ENGINEER></div> <div>CHECKER -</div> <div>TESTER TEMPLATE no_template</div> <div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</div> <div>DECIMALS X.XX +0.010 X.XXX +0.005</div> <div>TOLERANCES FRACTIONS +1/32</div> <div>ANGLES +2</div> <div>DRAWING NO. 02_063978</div> <div>REV. C</div> <div>SIZE D</div> <div>SCALE 1:1</div> <div>CODE ID NO. CodeID</div> <div>SHEET 1 OF 11</div>													
8		7		6		5		4		3		2		1																										

8 7 6 5 4 3 2 1

OVERVIEW

1.8V ANALOG
1.8V DIGITAL
1.3V ANALOG
1.0V ANALOG
1.0V DIGITAL
3.3V CLOCK

POWER MANAGEMENT

ADCLK944BCPZ
MCS FANOUT BUFFER

MCS ->
3.3V CLOCK

PAGE 9-12

PAGE 6

<- TX1
<- TX2
RX 1A ->
RX 1B ->
RX 2A ->
RX 2B ->
EXT LO 1 ->
EXT LO 2 ->

BALUN

AD9001
INTEGRATED TRANSCEIVER

SWITCH

<- MCS_EXT
<- MCS

INTERFACE <->

ANALOG GPIO/AUX ADC/AUX DAC/MODEA
TX/RX ENABLE/MODE/INT
DIGITAL GPIO
ARM JTAG
SPI

HEADER
HEADER
HEADER
HEADER
HEADER

PAGE 7

FMC
CONNECTOR

EEPROM
BOARD ID

PAGE 8

3.3V CLOCK

ADCLK944BCPZ
CLOCK FANOUT BUFFER

<- DEVICE CLK
FPGA CLK ->
TCXO/VCTCXO
<- REF CLK

PAGE 6

ZYNQ FAN CONNECTOR
VADJ MONITORING

PAGE 8

PAGE 3, 4

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK

ANALOG DEVICES

SCHEMATIC

HW TYPE : Customer Evaluation
Product(s) : ADRV9002
: NAVASSA

DESIGN VIEW
<DESIGN_VIEW>

PTD ENGINEER
<PTD_ENGINEER>

DRAWING NO.
02_063978

REV
C

SIZE
D

SCALE
1:1

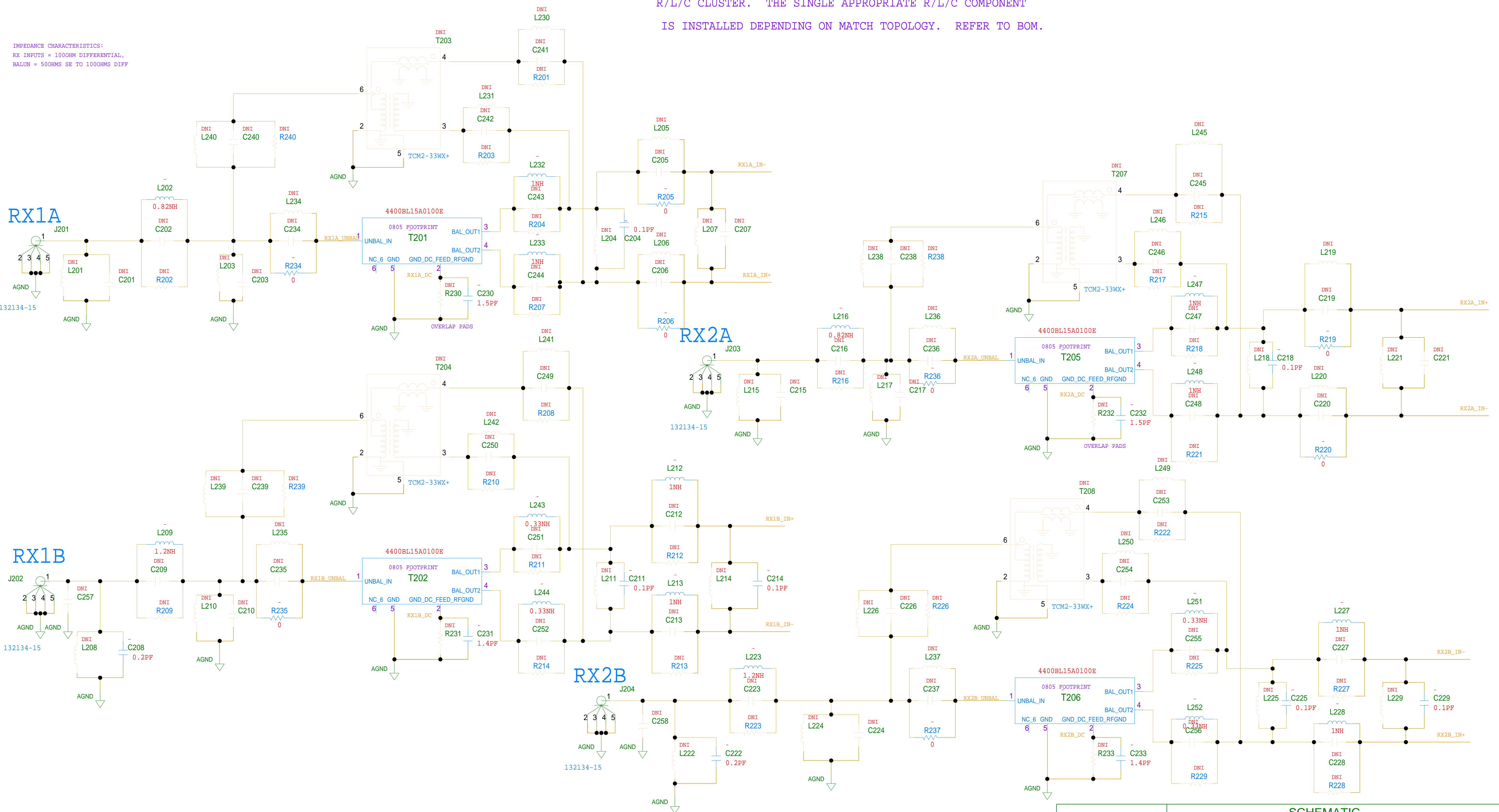
SHEET 2 OF 11

8 7 6 5 4 3 2 1

RF IO

IMPEDANCE CHARACTERISTICS:
RX INPUTS = 100OHM DIFFERENTIAL,
BALUN = 50OHMS SE TO 100OHMS DIFF

ONLY 1 SET OF MOUNTING PADS EXISTS ON THE PCB PER
R/L/C CLUSTER. THE SINGLE APPROPRIATE R/L/C COMPONENT
IS INSTALLED DEPENDING ON MATCH TOPOLOGY. REFER TO BOM.



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK

		SCHEMATIC	
HW TYPE : Customer Evaluation Product(s) : ADRV9002 : NAVASSA		DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_063978
PTD ENGINEER <PTD_ENGINEER>		SIZE D	SCALE 1:1
		SHEET 3	OF 11

RF IO

RF OUTPUT 1

RF OUTPUT 2

LO1 INPUT

LO2 INPUT

TOP SIDE

BOTTOM SIDE

TOP SIDE

BOTTOM SIDE

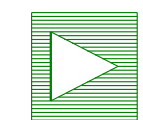
ONLY 1 SET OF MOUNTING PADS EXISTS ON THE PCB PER R/L/C CLUSTER. THE SINGLE APPROPRIATE R/L/C COMPONENT IS INSTALLED DEPENDING ON MATCH TOPOLOGY. REFER TO BOM.

IMPEDANCE CHARACTERISTICS:
EXTERNAL LO INPUTS = 100OHM DIFFERENTIAL,
BALUN = 50OHMS SE TO 100OHMS DIFF

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK

IMPEDANCE CHARACTERISTICS:
TX OUTPUTS = 50OHM DIFFERENTIAL,
BALUN = 50OHMS SE TO 50OHMS DIFF



ANALOG
DEVICES

SCHEMATIC

HW TYPE : Customer Evaluation
Product(s): ADRV9002
: NAVASSA

DESIGN VIEW

<DESIGN_VIEW>

PTD ENGINEER

<PTD_ENGINEER>

DRAWING NO.

02_063978

SIZE

D

SCALE

1:1

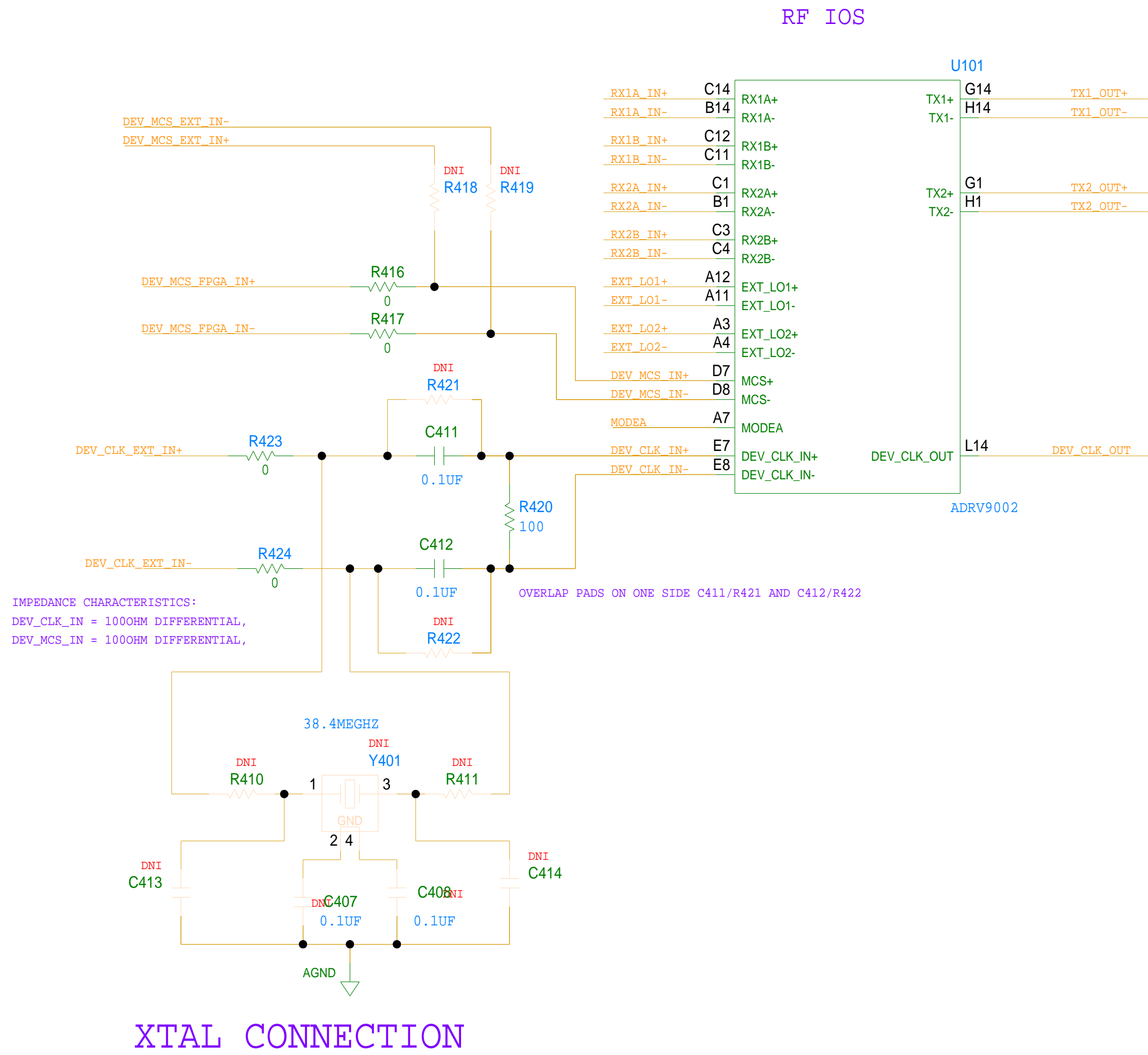
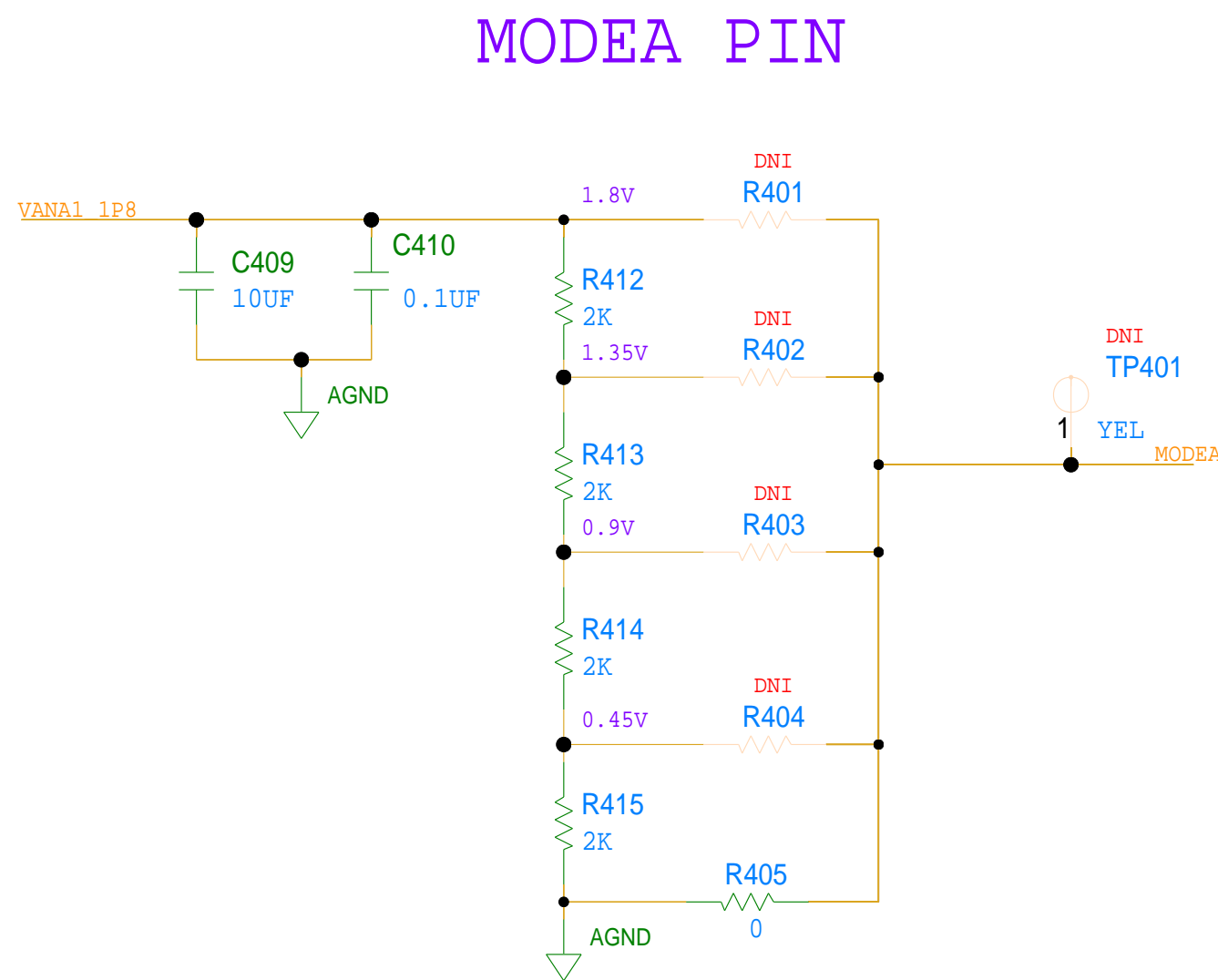
REV

C

SHEET 4 OF 11

DEVICE CLOCK INPUT

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK



SCHEMATIC			
HW TYPE : Customer Evaluation Product(s) : ADRV9002 : NAVASSA			
DESIGN VIEW <DESIGN_VIEW>	DRAWING NO. 02_063978	REV C	
PTD ENGINEER <PTD_ENGINEER>	SIZE D	SCALE 1:1	SHEET 5 OF 11

DEVICE CLOCK/MCS DISTRIBUTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK

DEVICE CLK FANOUT

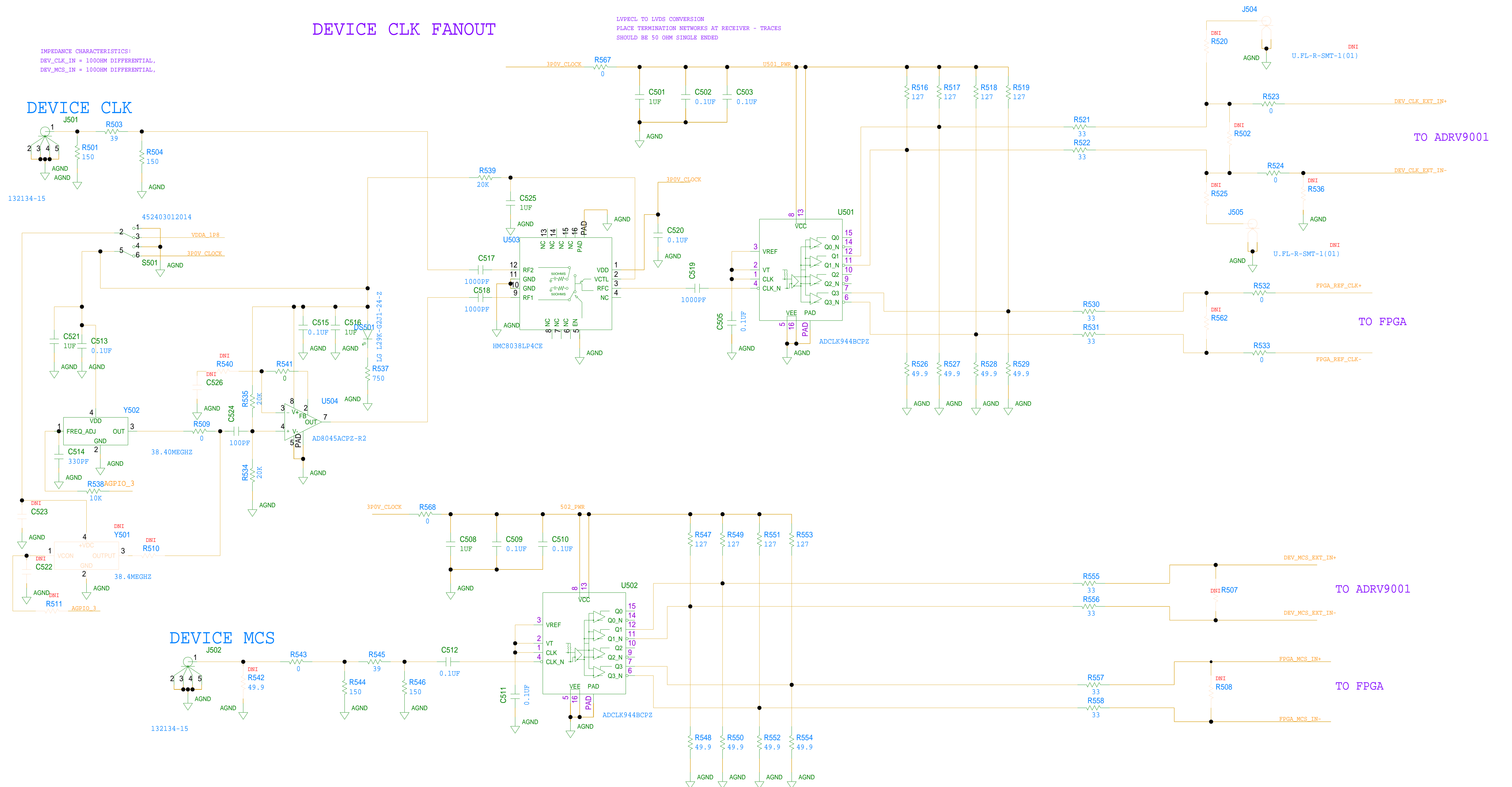
LVPECL TO LVDS CONVERSION
PLACE TERMINATION NETWORKS AT RECEIVER - TRACES
SHOULD BE 50 OHM SINGLE ENDED

DEVICE CLK


```

IMPEDANCE CHARACTERISTICS:
DEV_CLK_IN = 100OHM DIFFERENTIAL,
DEV_MCS_IN = 100OHM DIFFERENTIAL,

```

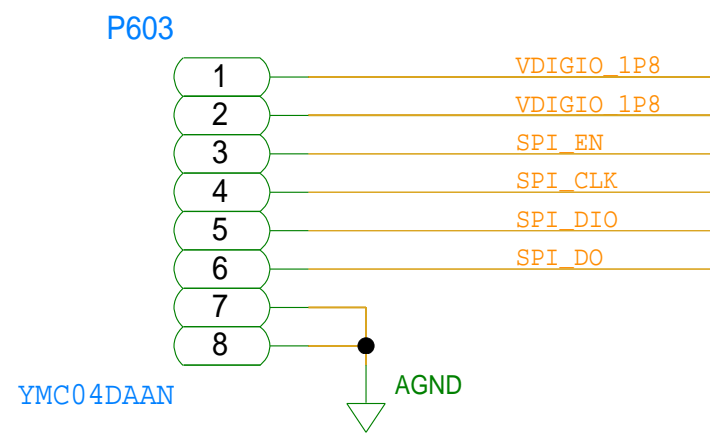


DEVICE MCS FANOUT

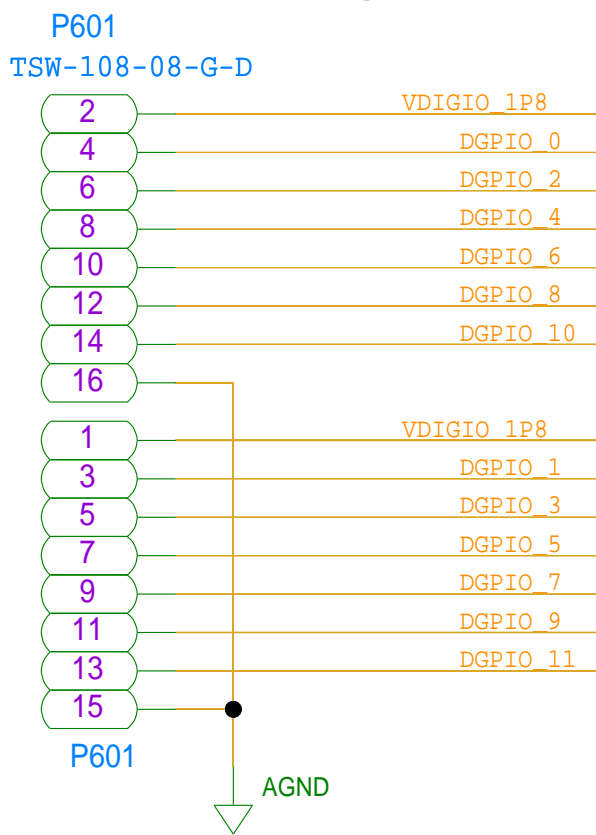
 ANALOG DEVICES		<h1>SCHEMATIC</h1>				
		HW TYPE : Customer Evaluation Product(s) : ADRV9002 : NAVASSA				
THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED IN FURNISHING INFORMATION TO OTHERS, OR FOR ANY OTHER PURPOSE INFORMATION, TO THE EXTENTS OF ANALOG DEVICES. THE EQUIPMENT SHOWN HEREON MAY BE PROTECTED BY PATENTS, OWNED OR CONTROLLED BY ANALOG DEVICES.		DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02_063978		REV C
		PTD ENGINEER <PTD_ENGINEER>		SIZE D	SCALE 1:1	SHEET 6 OF 11

GPIO

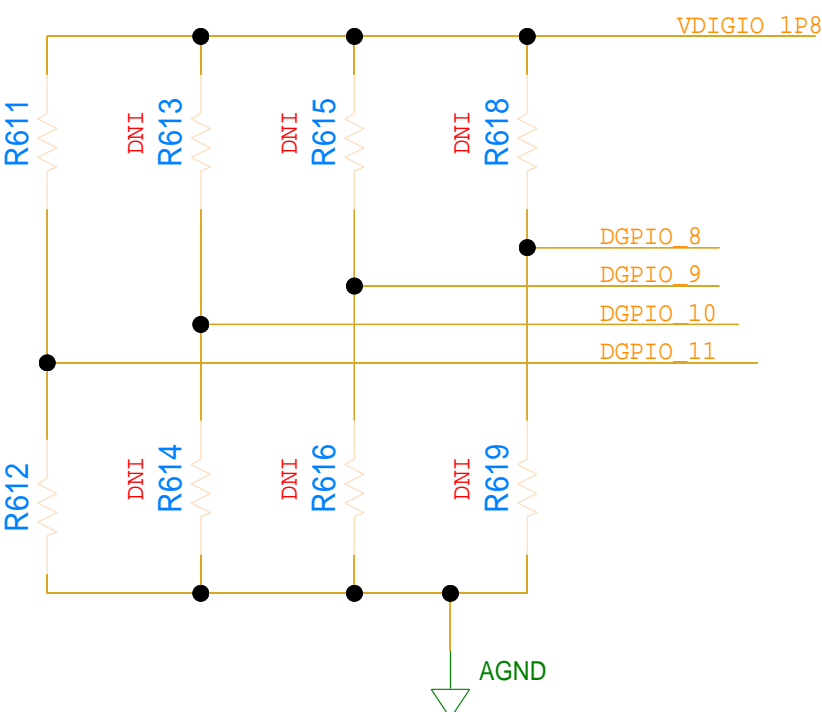
SPI INTERFACE



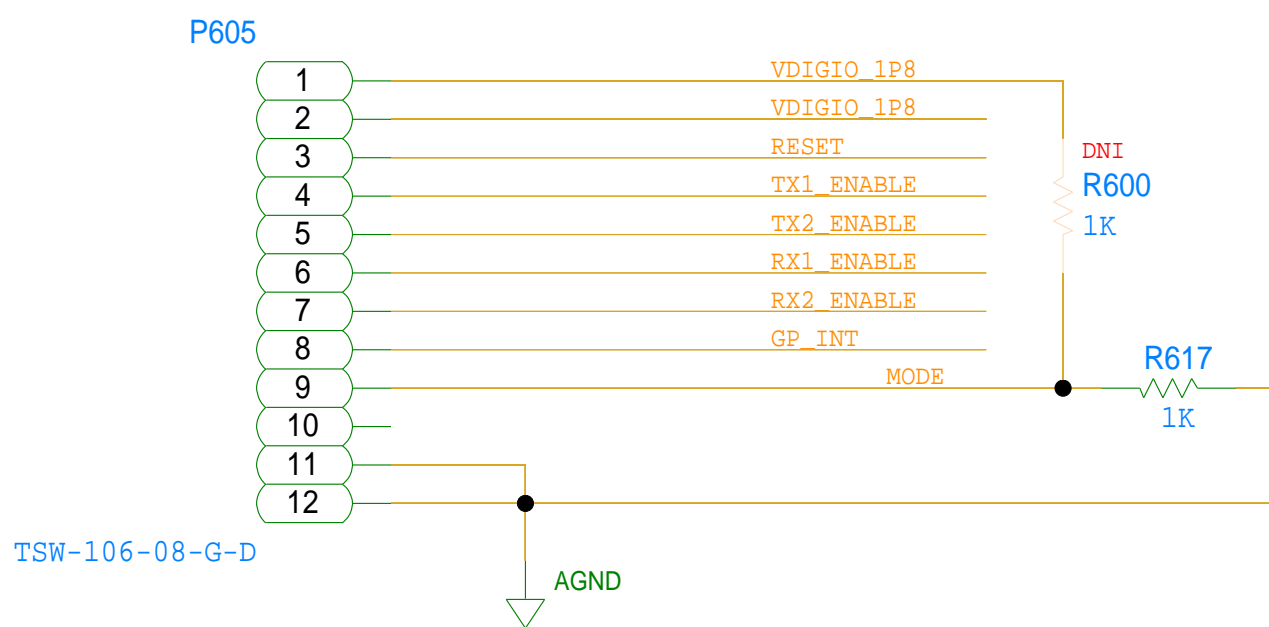
DIGITAL GPIO



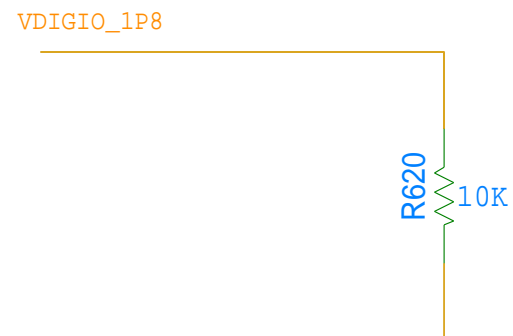
ANALOG GPIO



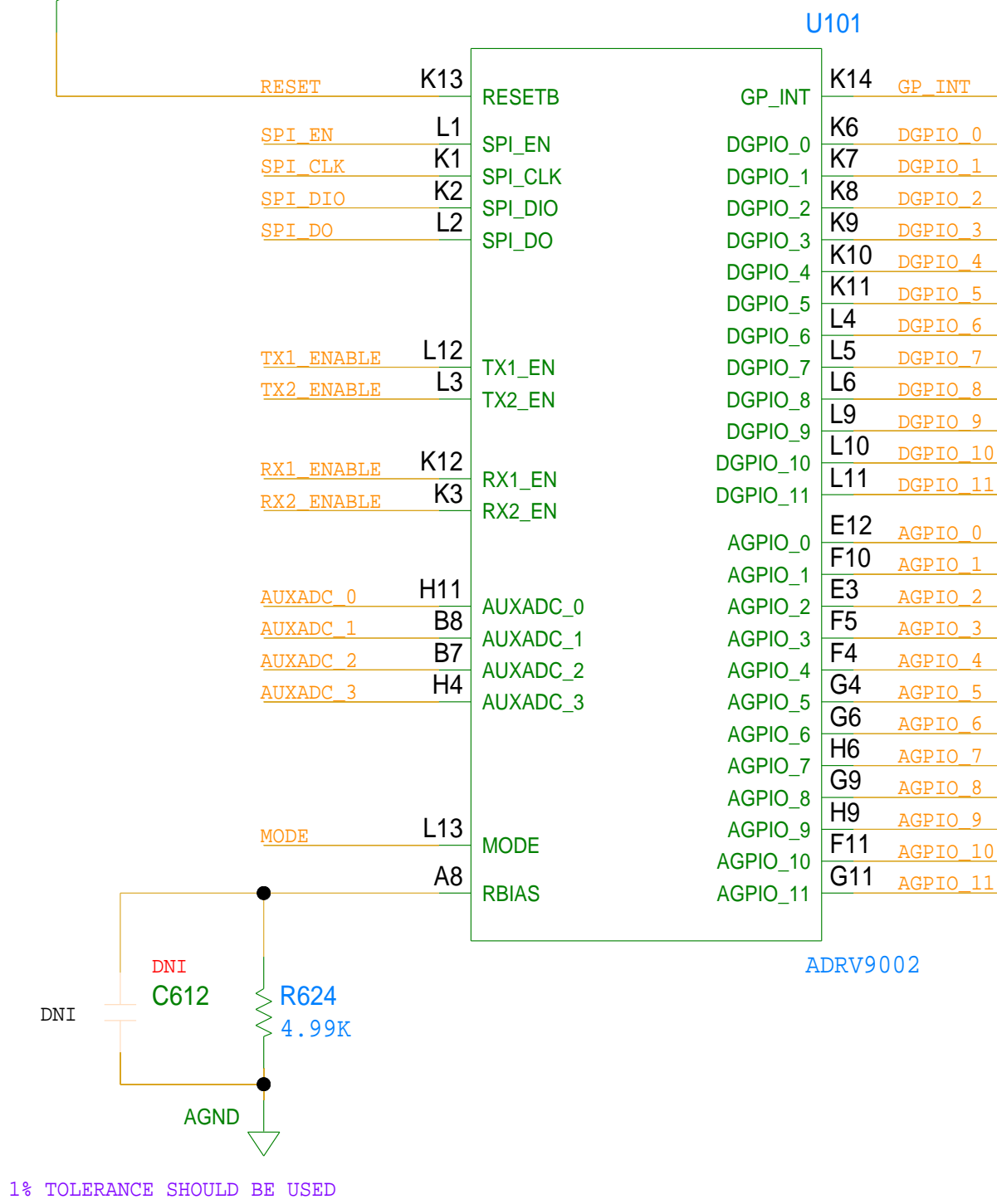
ENABLES/GPINT/RESETB



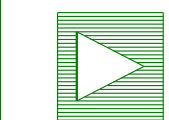
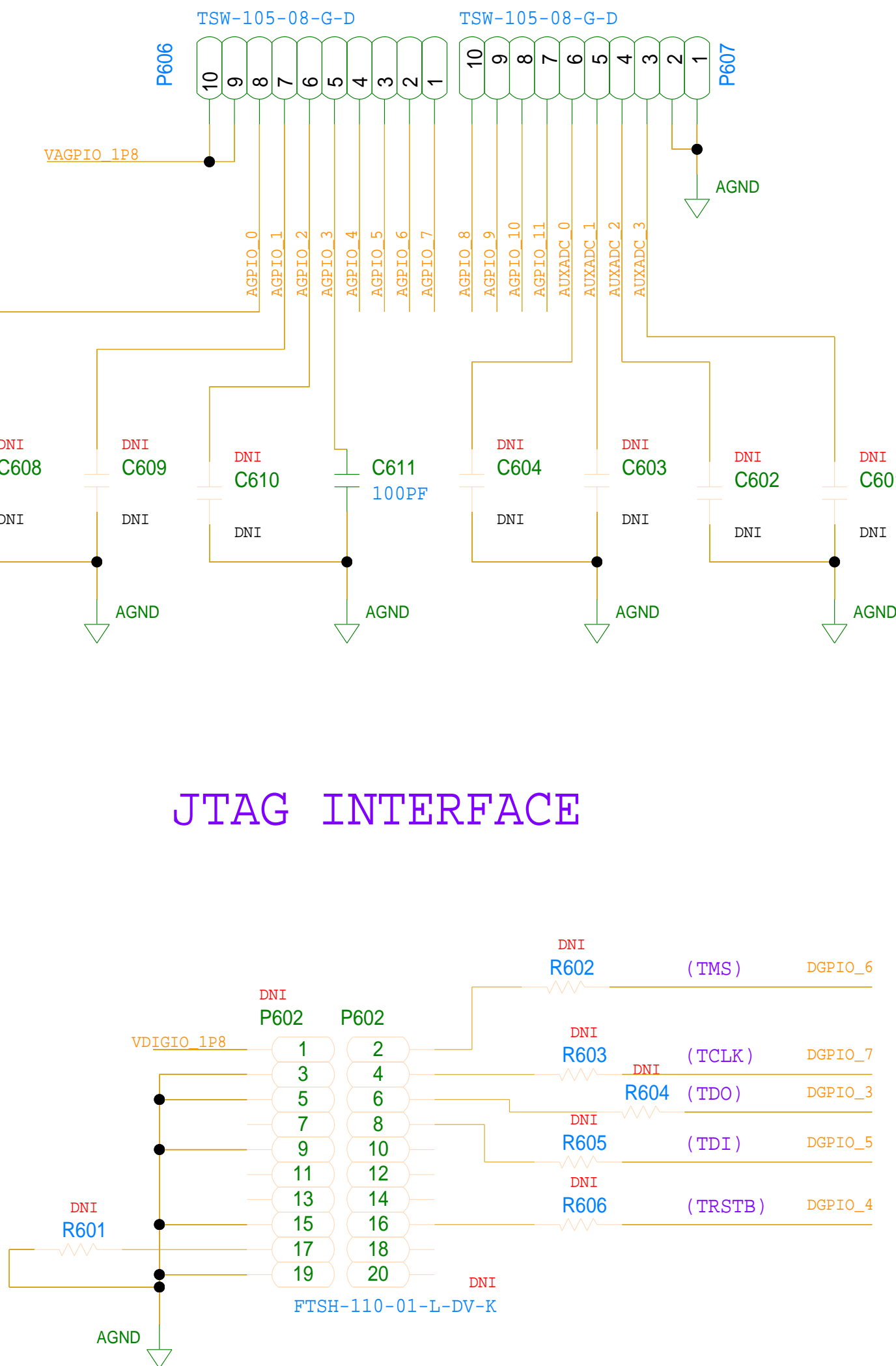
RESETB



CONTROL AND GPIOs



JTAG INTERFACE



ANALOG
DEVICES

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 PURPOSE DETRIMENTAL TO THE INTERESTS
OF ANALOG DEVICES.
THE EQUIPMENT SHOWN HEREON MAY BE PROTECTED BY PATENTS
OWNED OR CONTROLLED BY ANALOG DEVICES.

SCHEMATIC

HW TYPE : Customer Evaluation
Product(s) : ADRV9002
: NAVASSA

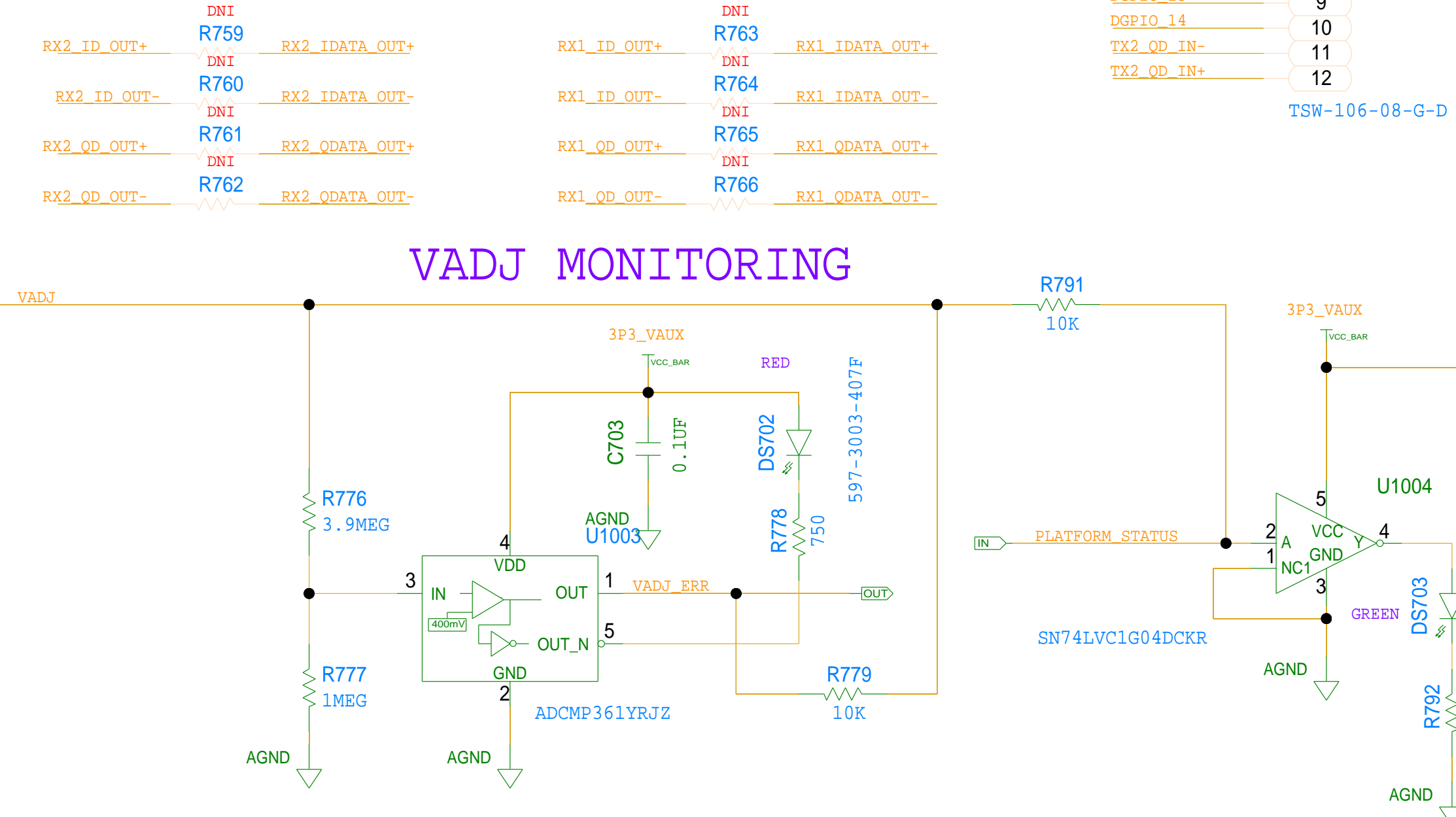
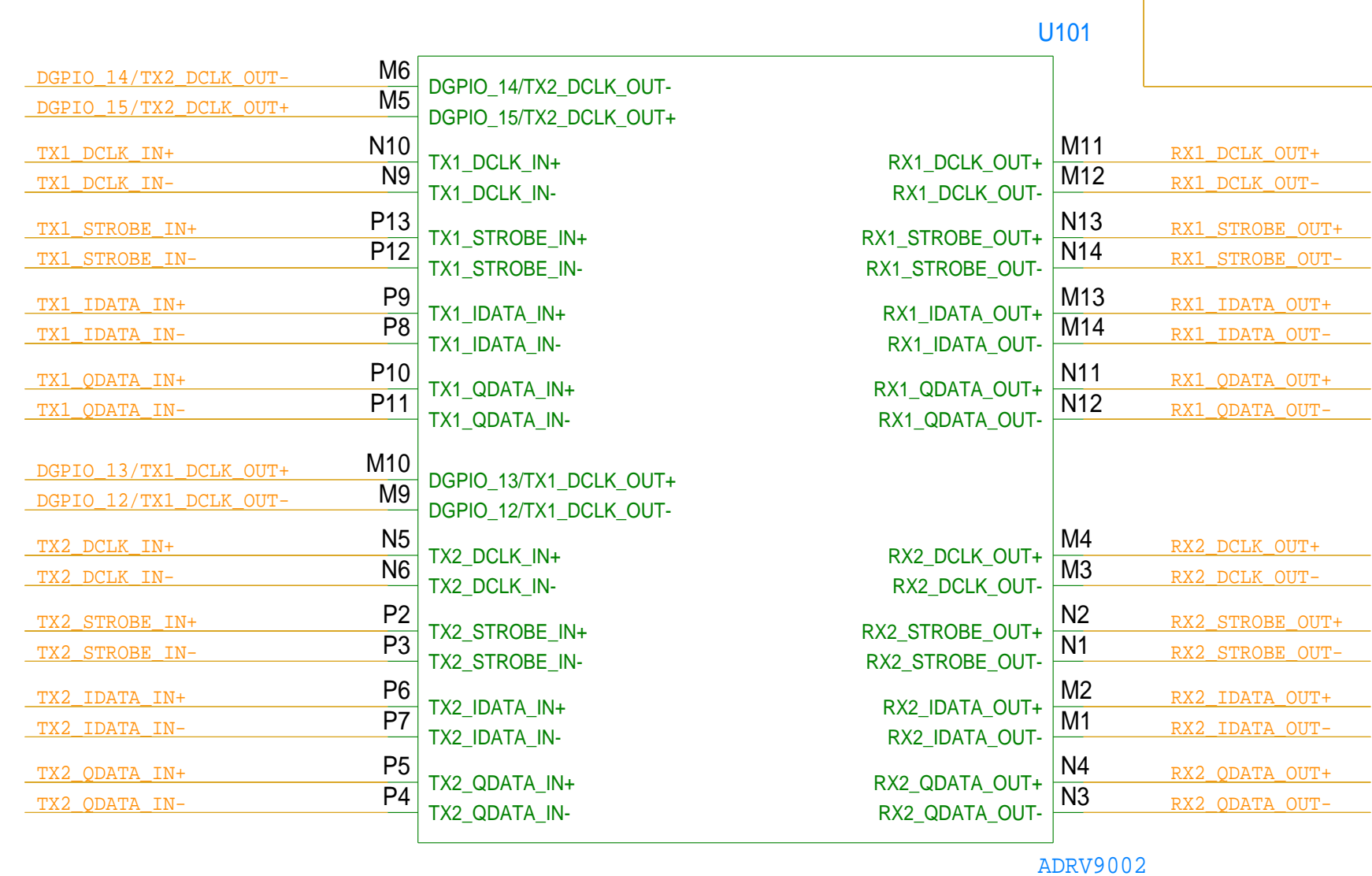
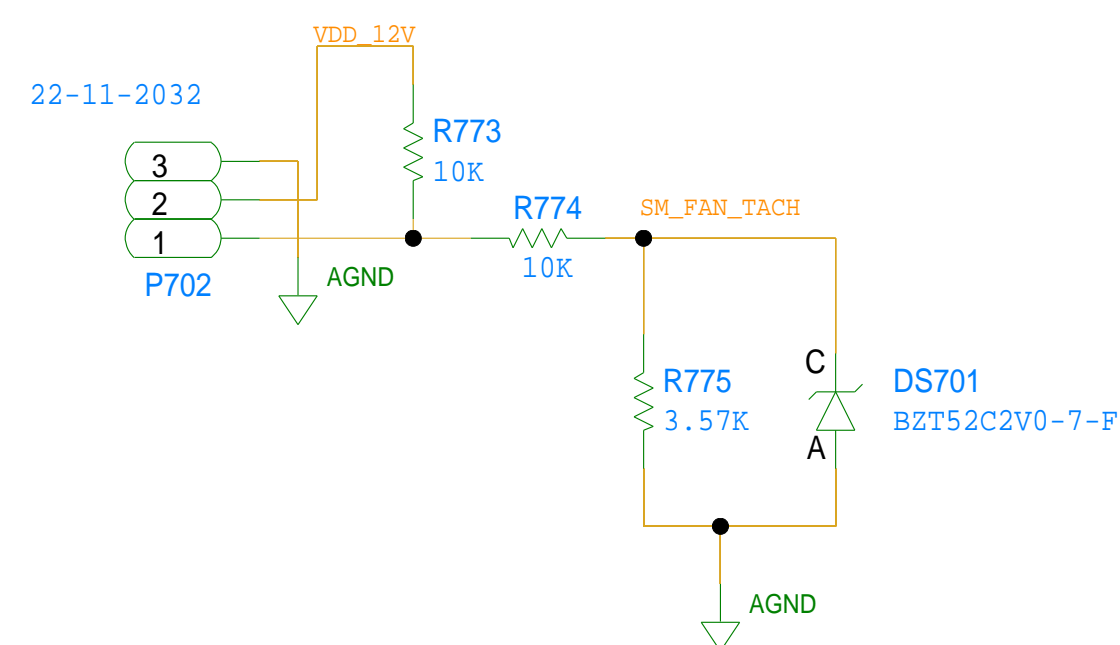
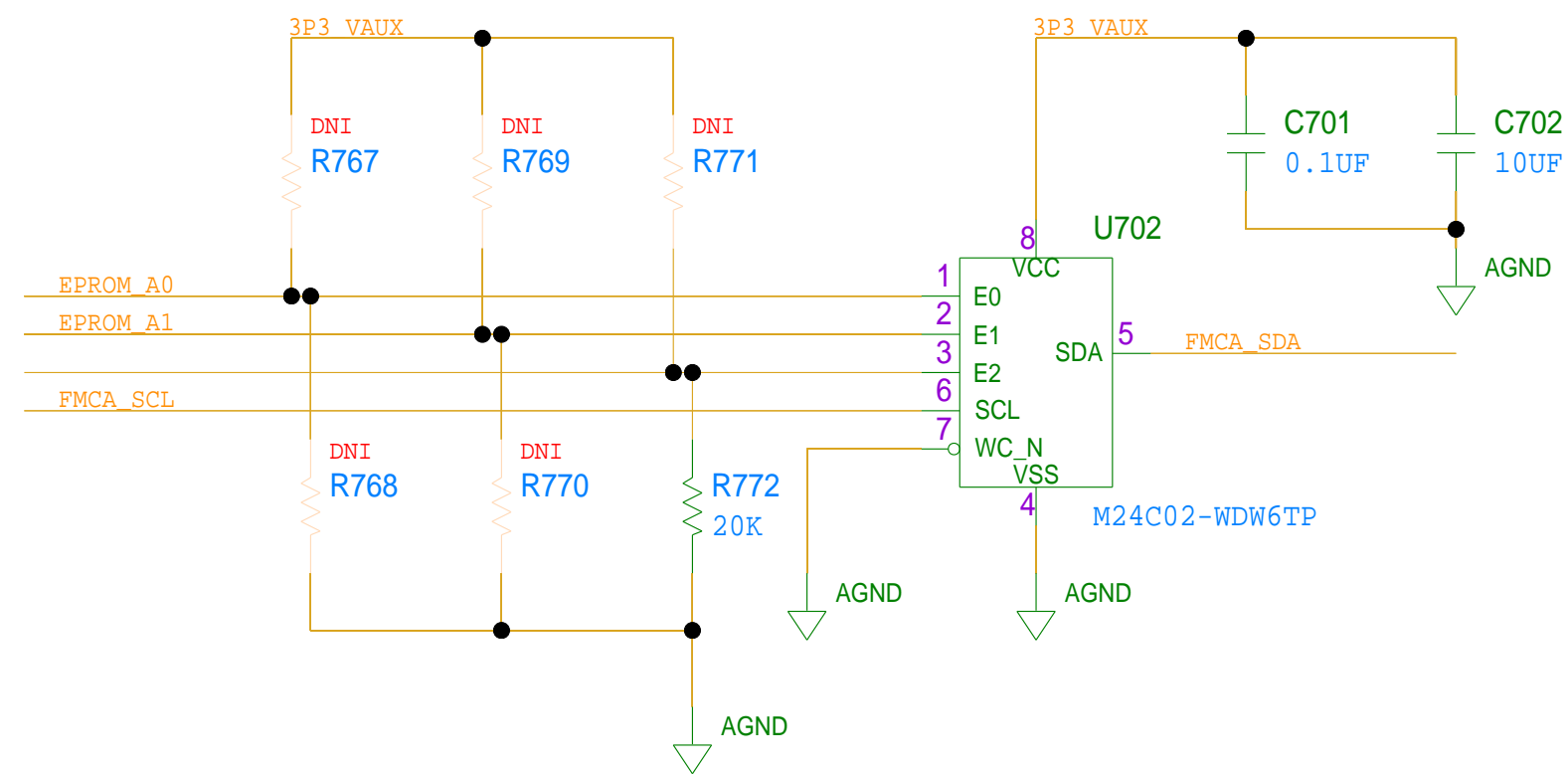
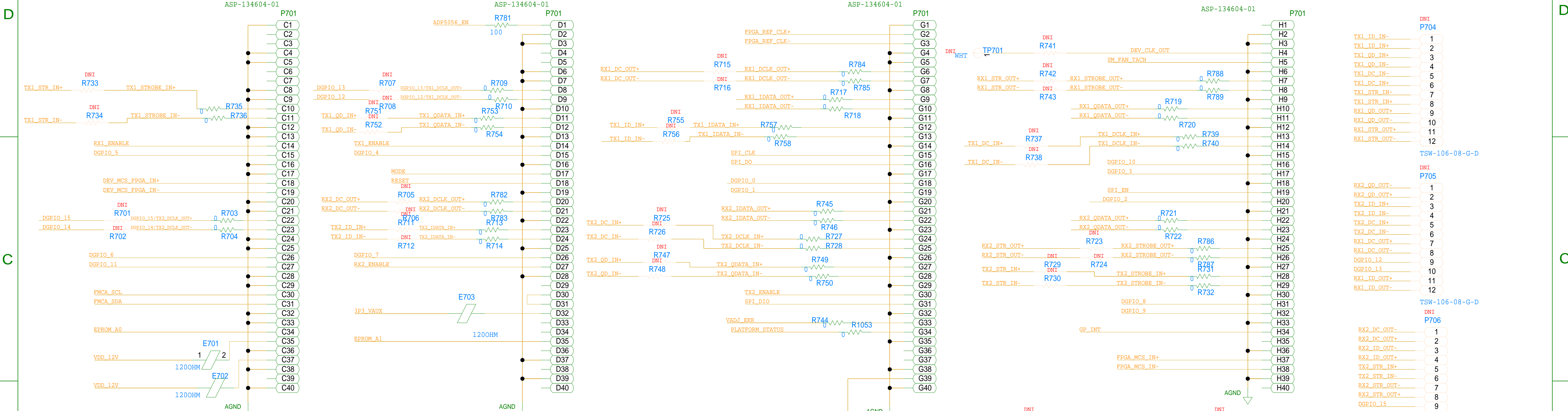
DESIGN VIEW
<DESIGN_VIEW>
PTD ENGINEER
<PTD_ENGINEER>


DRAWING NO.
02_063978

REV
C

SIZE D SCALE 1:1 SHEET 7 OF 11

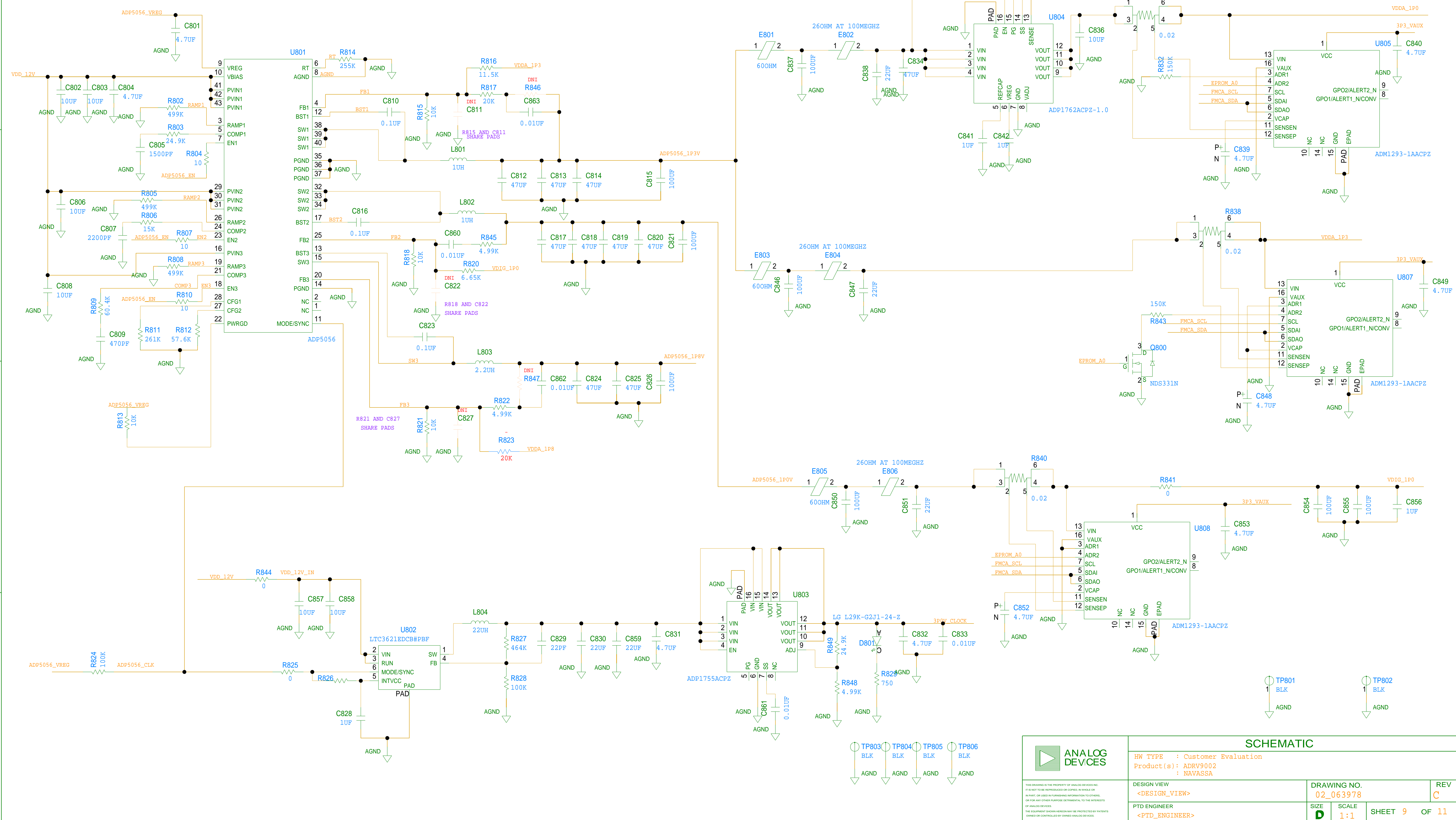
IMPEDANCE CHARACTERISTICS:
ALL DATA PORT DIFFERENTIAL PAIRS = 100OHM DIFFERENTIAL,

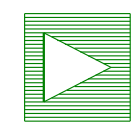


 ANALOG DEVICES	<h1 style="text-align: center;">SCHEMATIC</h1> <p> HW TYPE : Customer Evaluation Product(s) : ADRV9002 : NAVASSA </p>				
	DESIGN VIEW <DESIGN_VIEW>		DRAWING NO. 02_063978		REV C
<small>THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. IT IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART, OR USED IN FURNISHING INFORMATION TO OTHERS, OR FOR ANY OTHER PURPOSES DETERMINED TO THE INTERESTS OF ANALOG DEVICES. THE GOVERNMENT BACKLOG VERSION MAY BE PROTECTED BY PATENTS OWNED OR CONTROLLED BY OWNED ANALOG DEVICES.</small>	PTD ENGINEER <PTD_ENGINEER>		SIZE D	SCALE 1:1	SHEET 8 OF 11

POWER SUPPLY

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE AS PER ECR-099043	02/10/20	H.MIRONCZUK



**ANALOG
DEVICES**

THIS DOCUMENT 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 PURPOSE DETRIMENTAL TO THE INTERESTS
OF ANALOG DEVICES.
THE EQUIPMENT SHOWN HEREON MAY BE PROTECTED BY PATENTS
OWNED OR CONTROLLED BY OWNED ANALOG DEVICES.

SCHEMATIC
HW TYPE : Customer Evaluation
Product(s) : ADRV9002
: NAVASSA

DESIGN VIEW
<DESIGN_VIEW>

PTD ENGINEER
<PTD_ENGINEER>

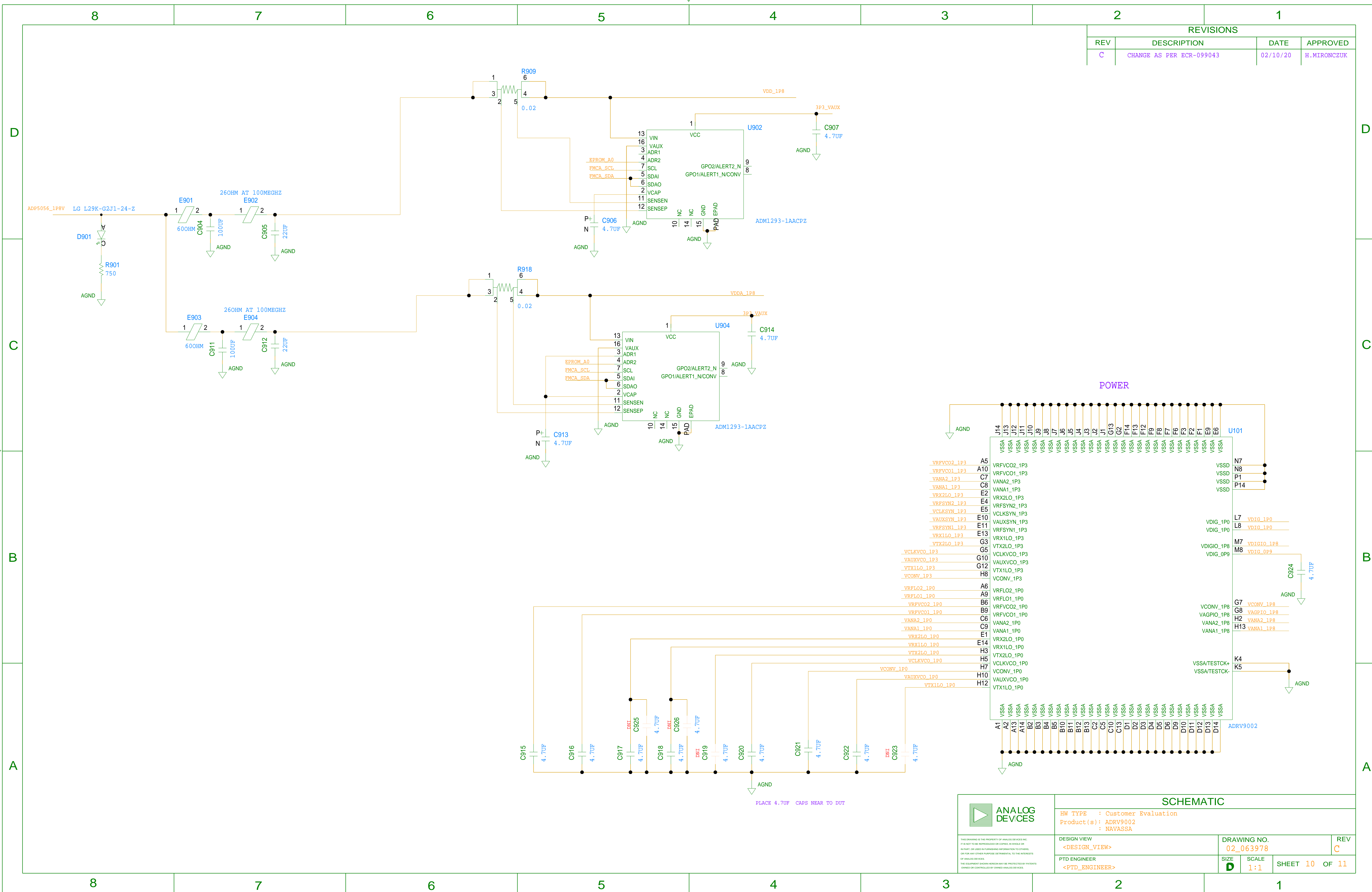
DRAWING NO.
02_063978

SIZE
D

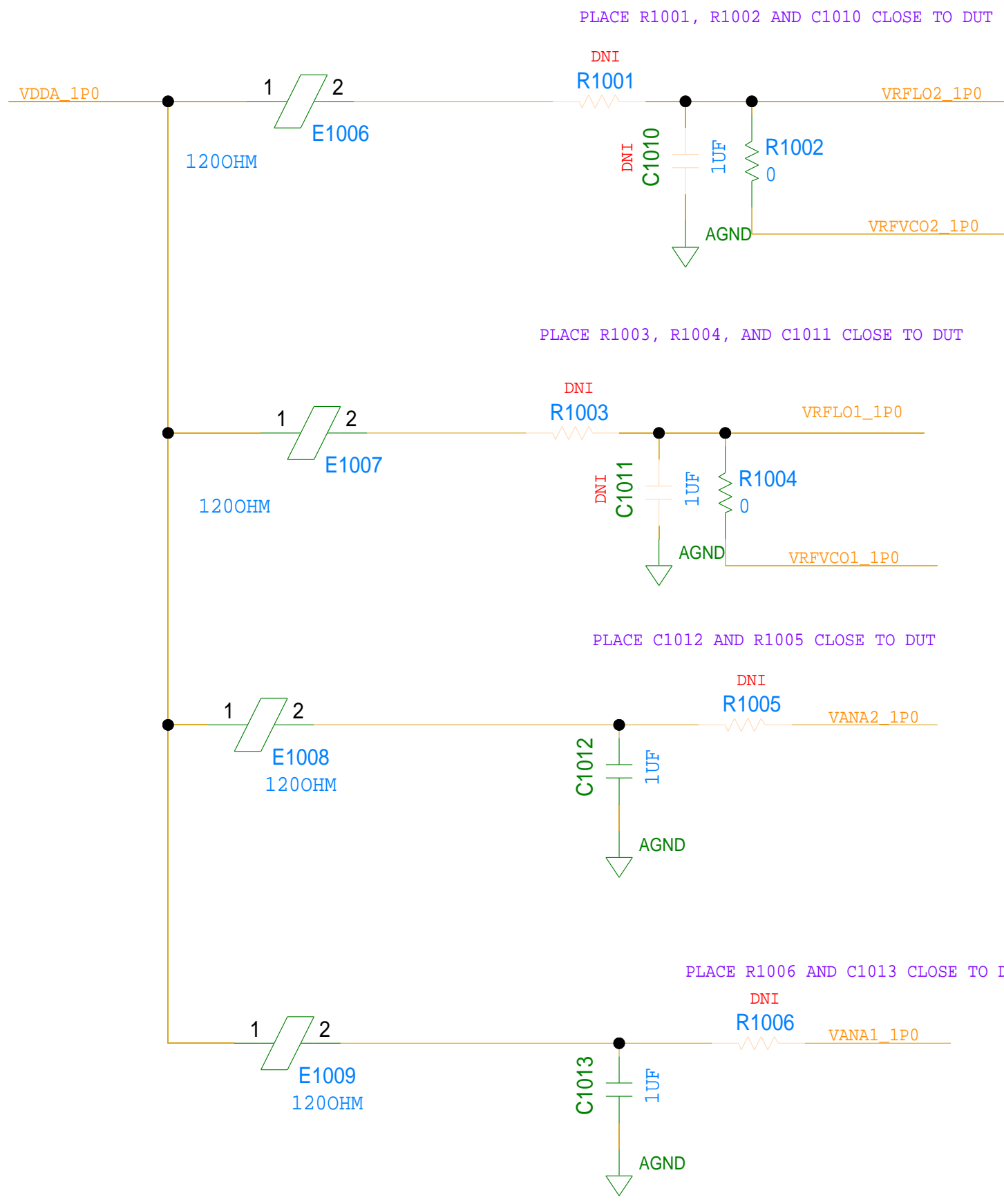
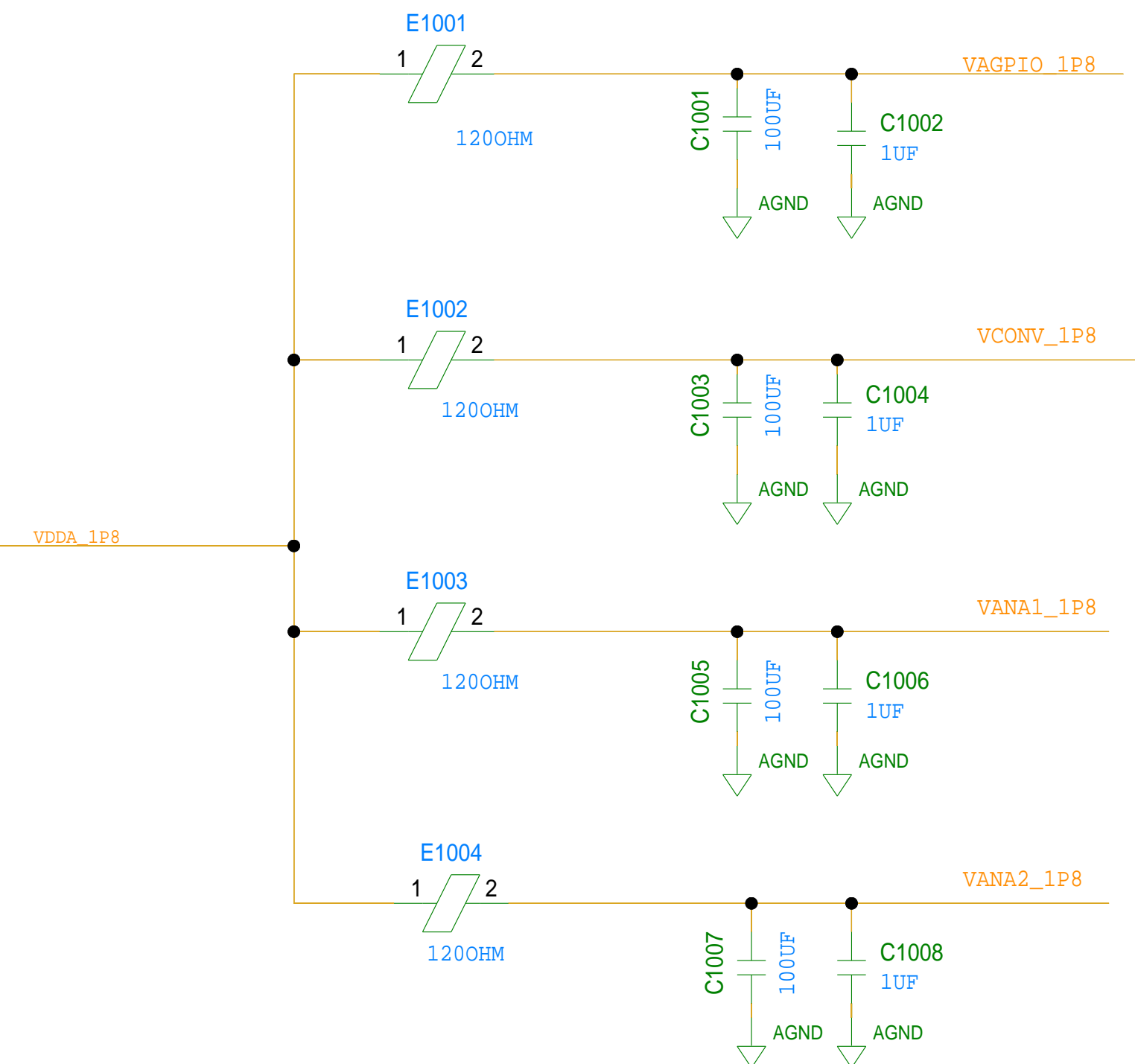
SCALE
1:1

REV
C

SHEET 9 OF 11



POWER INPUT



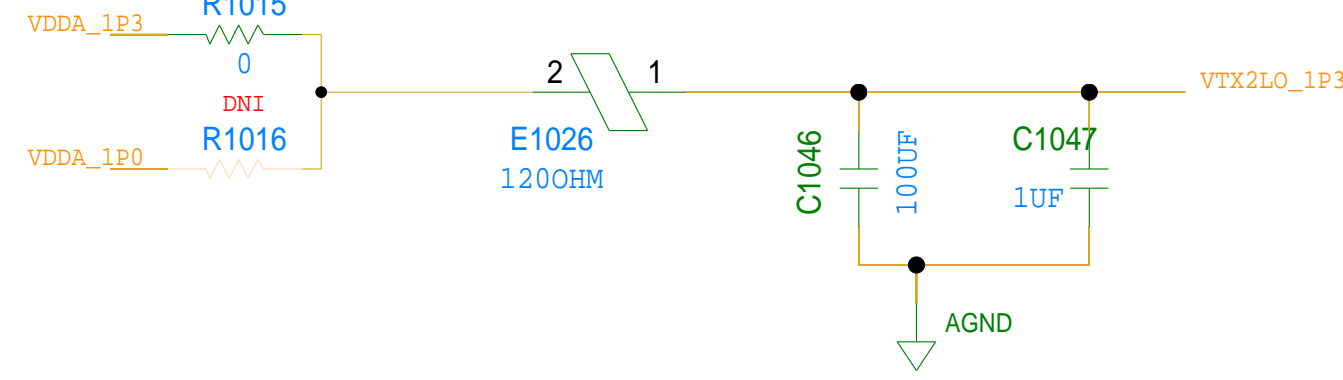
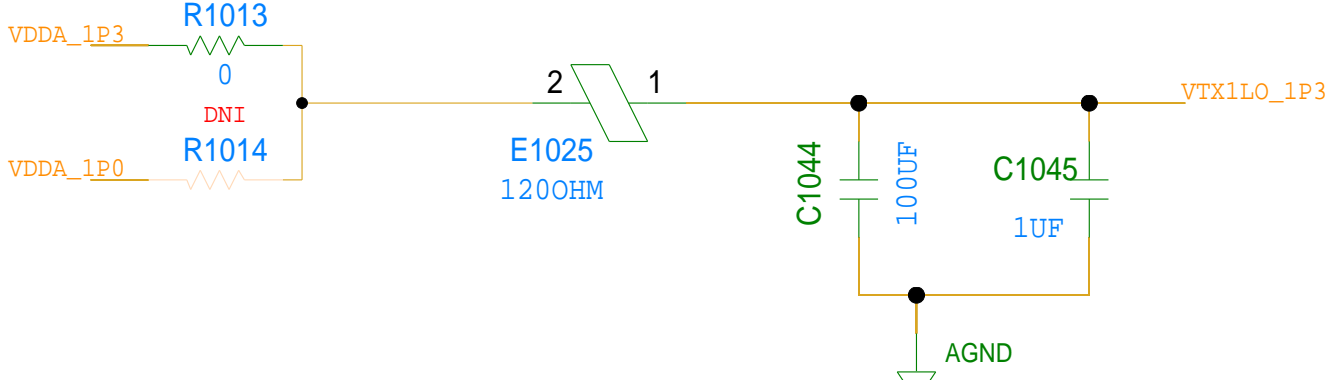
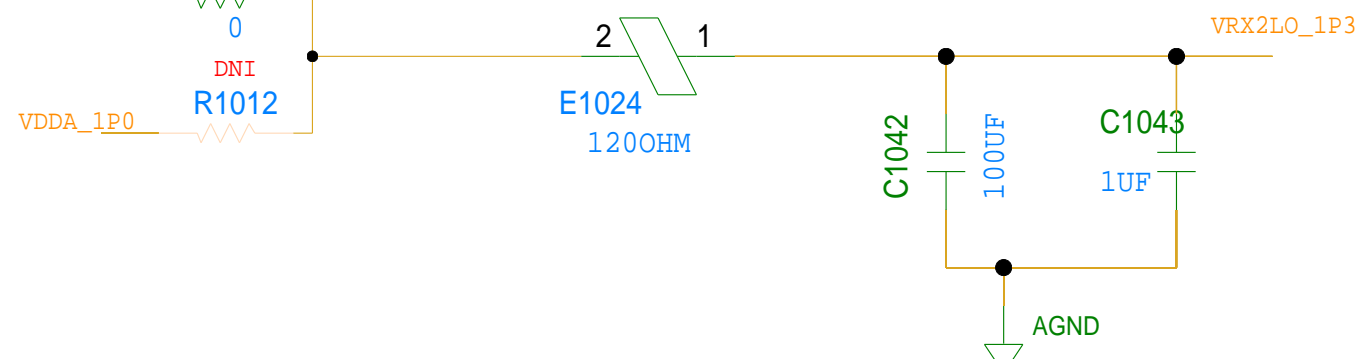
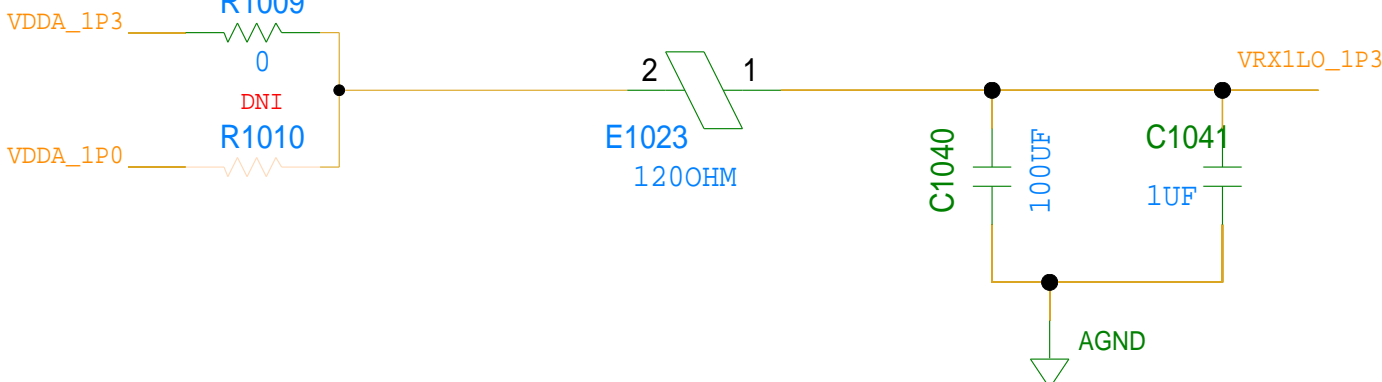
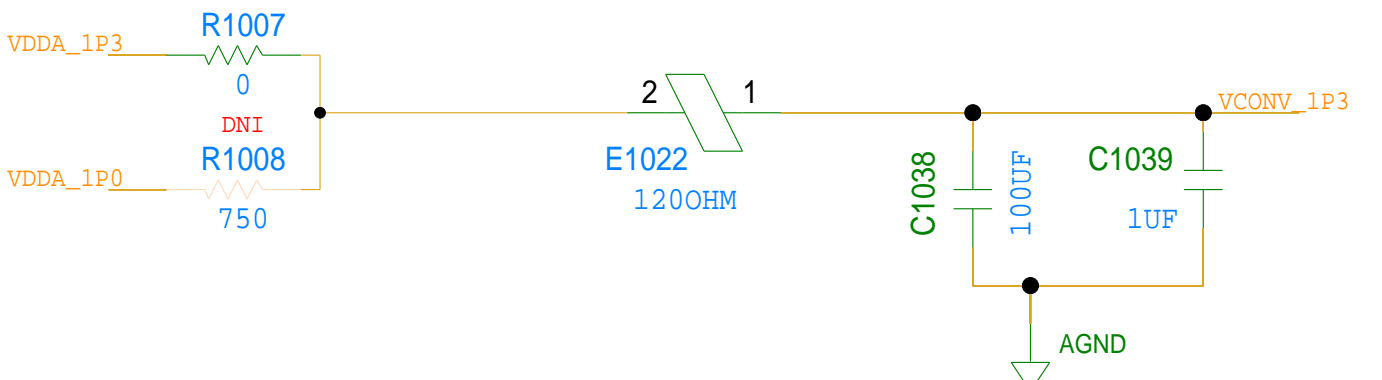
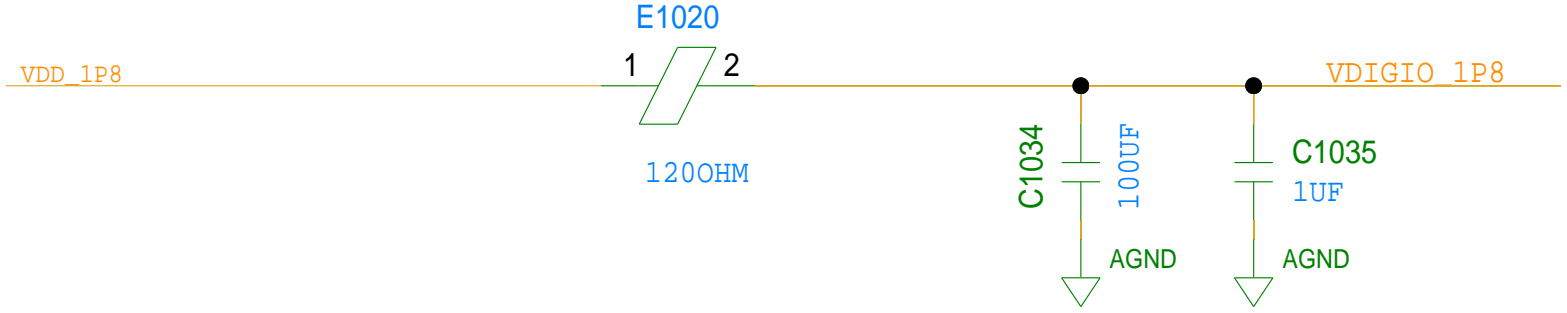
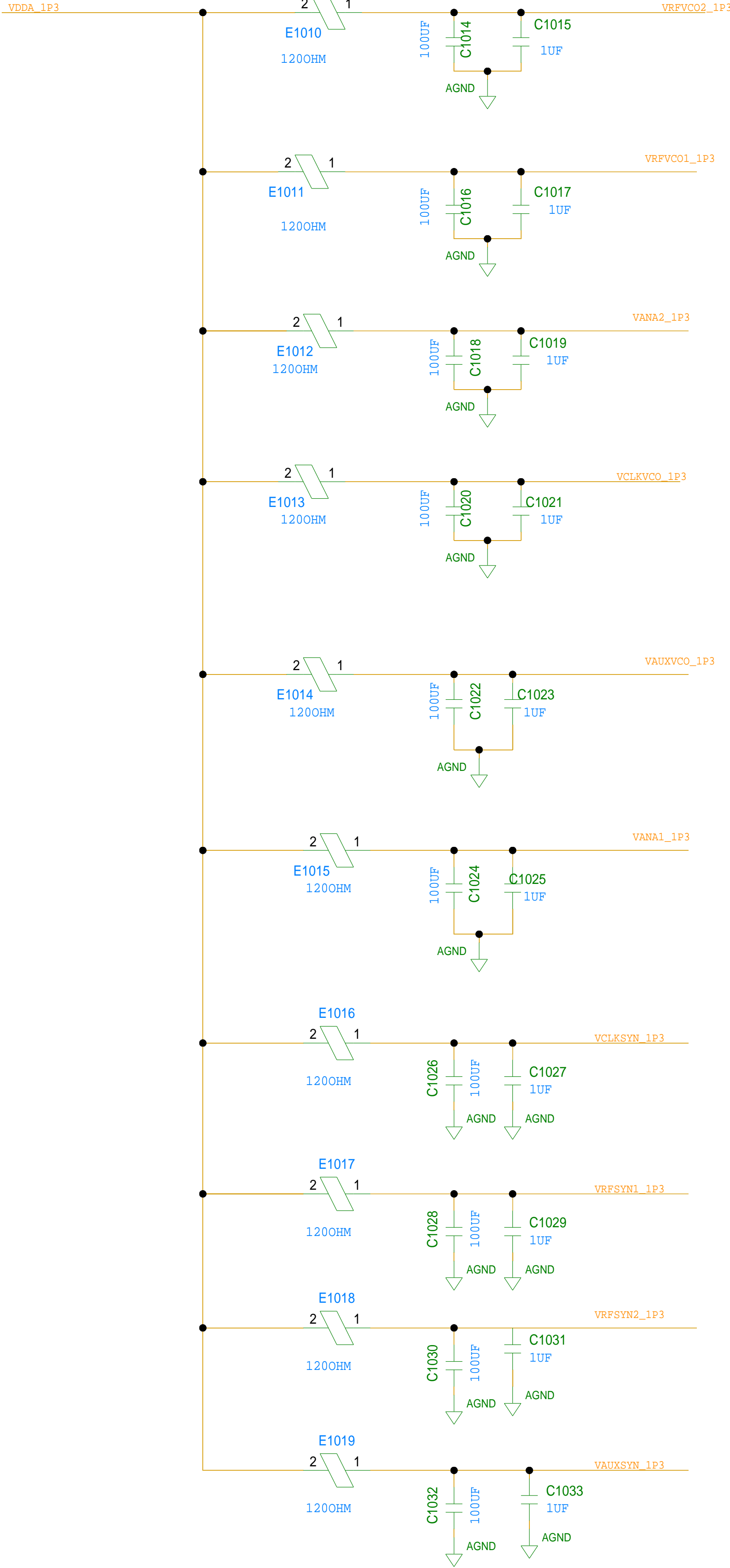
PLACE 1UF CAPS NEAR TO DUT

PLACE R1001, R1002 AND C1010 CLOSE TO DUT

PLACE R1003, R1004, AND C1011 CLOSE TO DUT

PLACE C1012 AND R1005 CLOSE TO DUT

PLACE R1006 AND C1013 CLOSE TO DUT



ANALOG DEVICES
HW TYPE : Customer Evaluation
Product(s) : ADRV9002 : NAVASSA

DESIGN VIEW
<DESIGN_VIEW>
PTD ENGINEER
<PTD_ENGINEER>

DRAWING NO.
02_063978
SCALE
1:1

REV
C
SHEET 11 OF 11