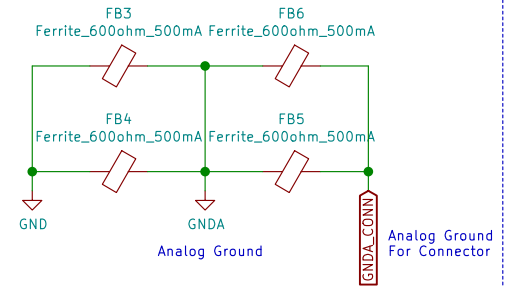
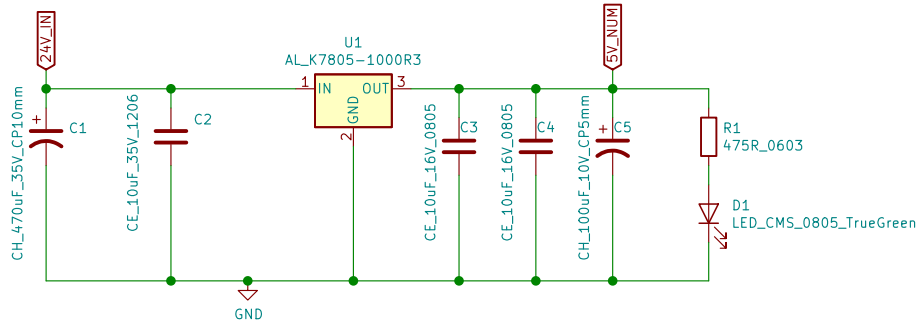
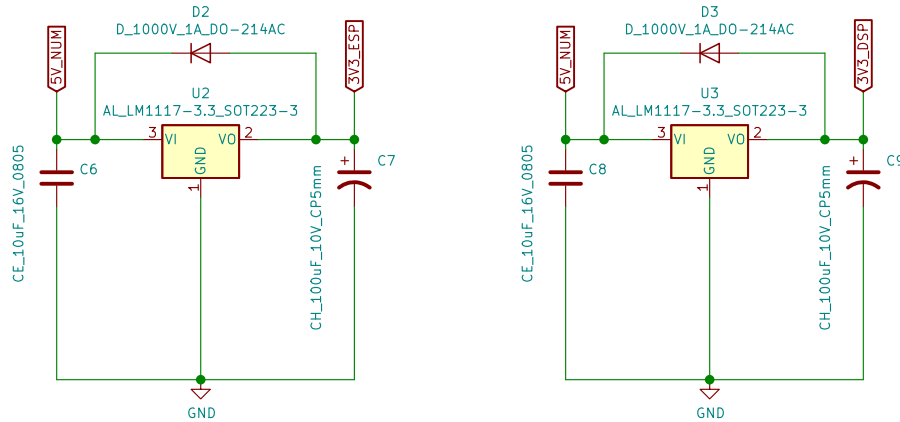


	1	2	3	4	5	6	
A	<div>Sheet: PDSP-I4-08-PSU</div> <div>File: PDSP-I4-08-PSU.sch</div>	<div>Sheet: PDSP-I4-08-PREAMP-IN</div> <div>File: PDSP-I4-08-PREAMP-IN.sch</div>	<div>Sheet: PDSP-I4-08-PREAMP-OUT</div> <div>File: PDSP-I4-08-PREAMP-OUT.sch</div>				
B	<div>Sheet: PDSP-I4-08-ESP32</div> <div>File: PDSP-I4-08-ESP32.sch</div>	<div>Sheet: PDSP-I4-08-DSP</div> <div>File: PDSP-I4-08-DSP.sch</div>	<div>Sheet: PDSP-I4-08-CONNECTOR_UI_CONFIG</div> <div>File: PDSP-I4-08-CONNECTOR_UI_CONFIG.sch</div>				
C							
D			<div><div><div>1</div><div>H1</div><div>Trou_3.2mm_6mm_metal</div></div><div><div>1</div><div>H2</div><div>Trou_3.2mm_6mm_metal</div></div><div><div>1</div><div>H3</div><div>Trou_3.2mm_6mm_metal</div></div><div><div>1</div><div>H4</div><div>Trou_3.2mm_6mm_metal</div></div></div>		<div><div><div>Pierre Dandine</div><div>2021-08</div><div>https://github.com/PierroDandine/</div><div>Sheet: / File: PDSP-I4-08.sch</div><div>Title: PDSP-I4-08</div><div><div>Size: A4</div><div>Date: 2021-10-22</div><div>Rev: V01.00</div></div><div><div>KiCad E.D.A. kicad (5.1.5)-3</div><div>Id: 1/7</div></div></div></div>		
	1	2	3	4	5	6	

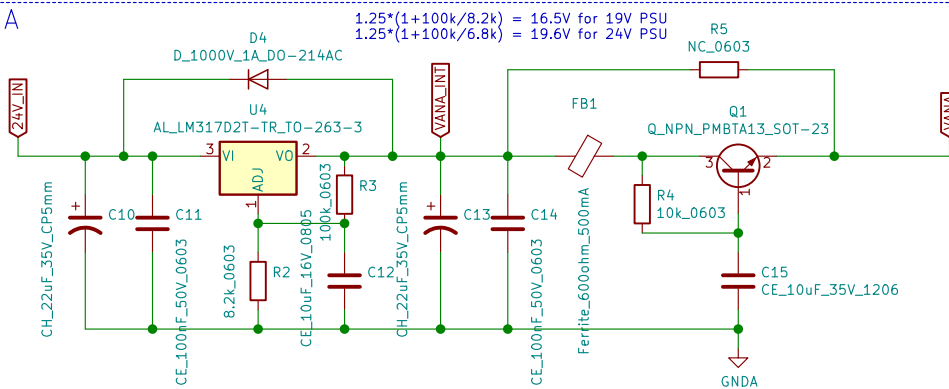
From 24V num to 5V num



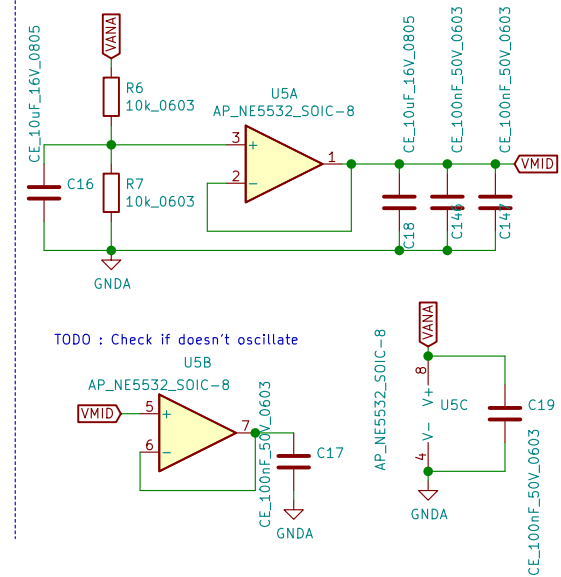
From 5V Num to 3.3V DSP & ESP32



VANA



VMID Ana Generator



Pierre Dandine
2021-08

<https://github.com/PierroDandine/>

Sheet: /PDSP-14-08-PSU/
File: PDSP-14-08-PSU.sch

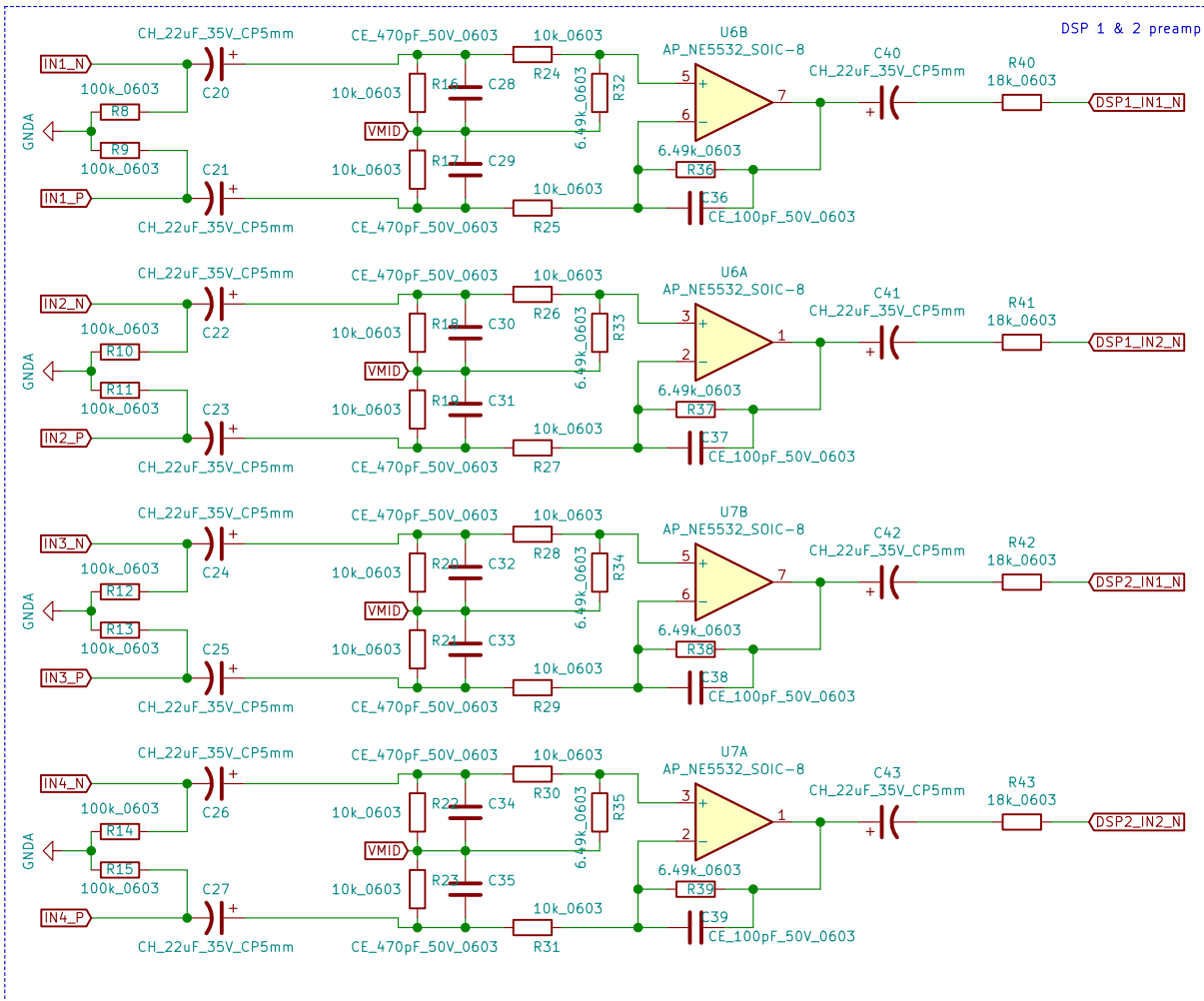
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Size: A4	Date: 2021-10-22
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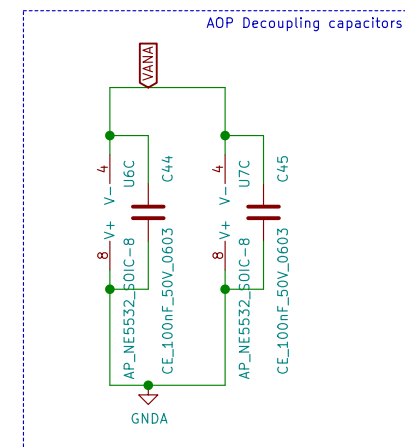
Rev: V01.00

Size: A1	Date: 2021
KiCad E.D.A.	kicad (5.1.5)-3

Id: 2/7



2VRMS IN with 18k $((18+2)/100\mu A = 2Vrms)$
 Need 3.08V input for 2V, so $1/1.54$
 $\Rightarrow 10k/6.49k = 1.54$, perfect



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 2021-08

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Sheet: /PDSP-I4-08-PREAMP-IN/

File: PDSP-I4-08-PREAMP-IN.sch

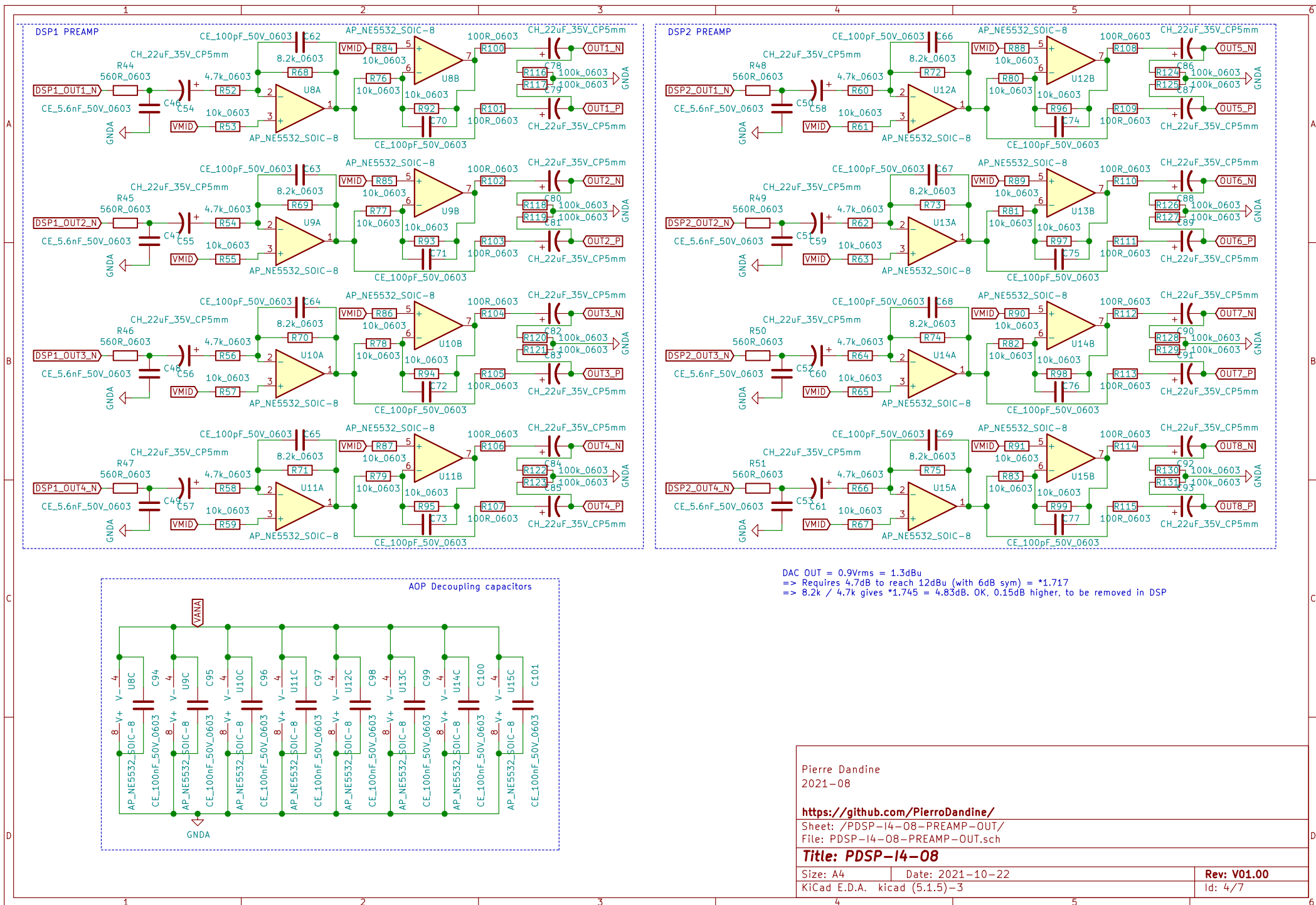
Title: PDSP-I4-08

Size: A4 Date: 2021-10-22

KiCad E.D.A. kicad (5.1.5)-3

Rev: V01.00

Id: 3/7



A



3

1

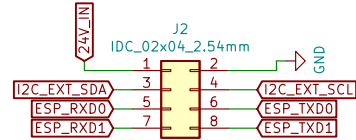
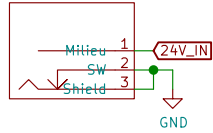
C



Id: 5/7

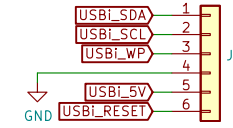
PSU IN
Can be removed for direct wier soldering:

J1
Embase_DC_5.5x2.1-2.5mm_TR_CD



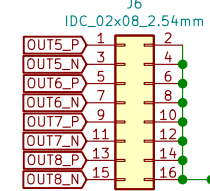
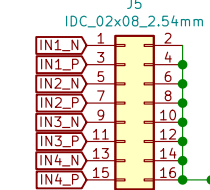
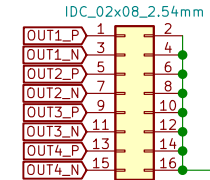
Extension connector for front I/O
For now, just another i2c, 24V and UART to flash ESP32
2 extra pins for future use (other UART ??)

JST_PH-6.2mm_Vertical



USBi connection using clone WONDOM DB-DP11219 pinout

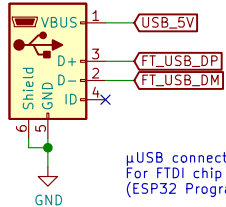
AUDIO EXT CONN



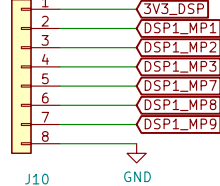
Specific GND to avoid noise

IN polarity
is inverted to
have same XLR
interface board
in mirror

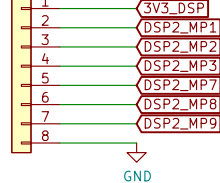
J8
USB_B_Micro_Vertical_LTR



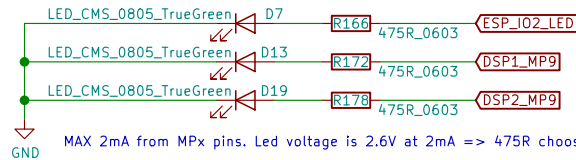
J9
Molex_PicoBlade_1x08_P1.25_Vertical_MX1.25



J10
Molex_PicoBlade_1x08_P1.25_Vertical_MX1.25

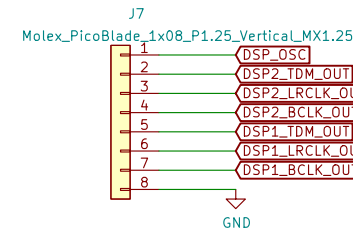


Header for MP pins (Optional)
To be used if required external LED, IO, POT etc...
(Remove internal LED then)



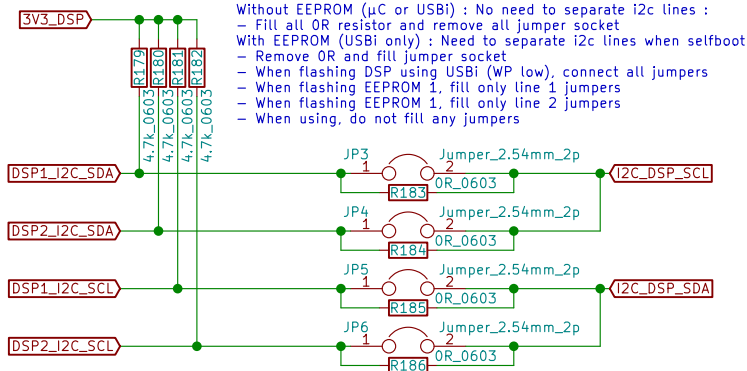
LEDs (Optional)

I2S on MP in case of require 2 boards = 4 DSP on same I2S bus

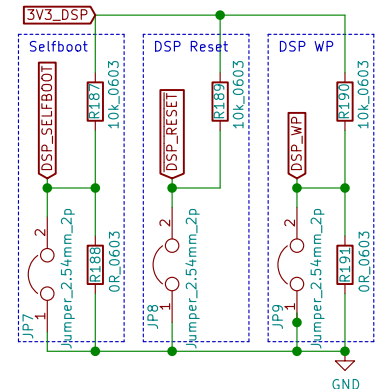


- 1 = DSP OSC (not required)
- 2 = DSP1 MP0 / DSP2 MP6
- 3 = DSP1 MP4 / DSP2 MP10
- 4 = DSP1 MP5 / DSP2 MP11
- 5 = DSP1 MP6 / DSP2 MP0
- 6 = DSP1 MP10 / DSP2 MP4
- 7 = DSP1 MP11 / DSP2 MP5

Pull-Up supposed to be 2.2k, but sometimes 2 in //, sometimes not



Without EEPROM (μC or USBi) : No need to separate I2c lines :
- Fill all 0R resistor and remove all jumper socket
With EEPROM (USBi only) : Need to separate I2c lines when selfboot
- Remove 0R and fill jumper socket
- When flashing DSP using USBi (WP low), connect all jumpers
- When flashing EEPROM 1, fill only line 1 jumpers
- When flashing EEPROM 1, fill only line 2 jumpers
- When using, do not fill any jumpers



If selfboot with EEPROM :
- On WP, connect 10k pull-up, and jumper down (used to flash DSP & EEPROM)
- On SELFBOOT, connect 10k pull-up (no jumper required)
If μC control :
- Connect 0R down on WP and SELFBOOT (no jumper required)
Note :
- WP of both DSP are connected together to have only one jumper
- On RESET, connect jumper down and 10k pull-up to be able to reset both DSP

Pierre Dandine
2021-08

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Sheet: /PDSP-I4-08-CONNECTOR_UI_CONFIG/
File: PDSP-I4-08-CONNECTOR_UI_CONFIG.sch

Title: PDSP-I4-08

Size: A4 Date: 2021-10-22
KiCad E.D.A. kicad (5.1.5)-3

Rev: V01.00
Id: 7/7