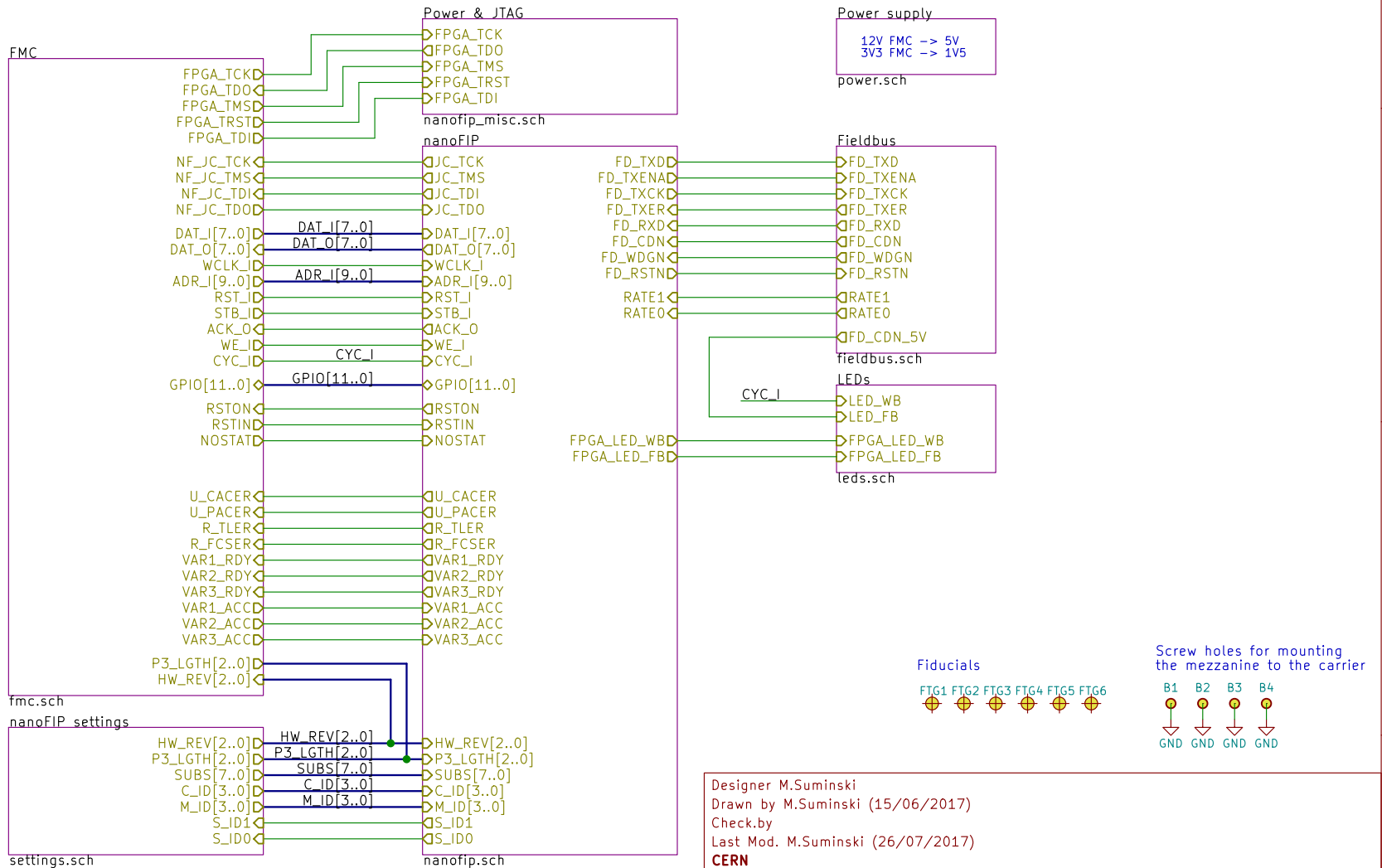


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<http://www.ohwr.org/projects/fmc-nanofip>



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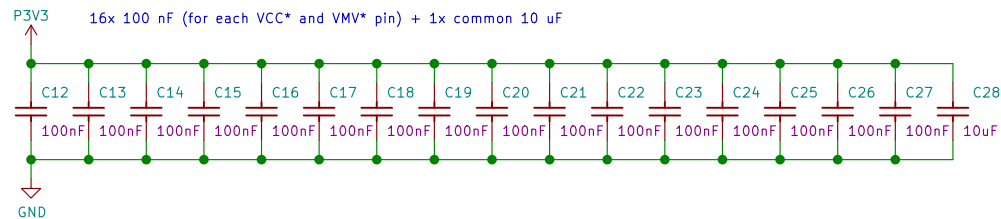
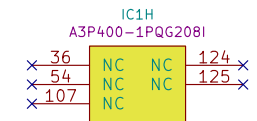
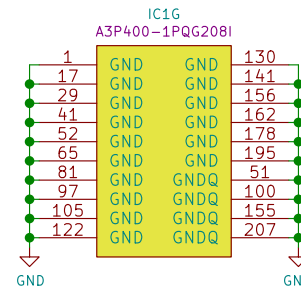
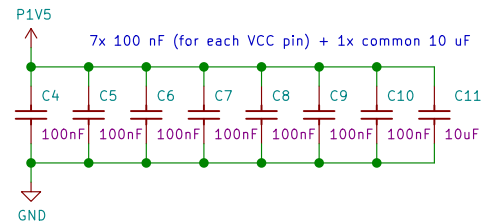
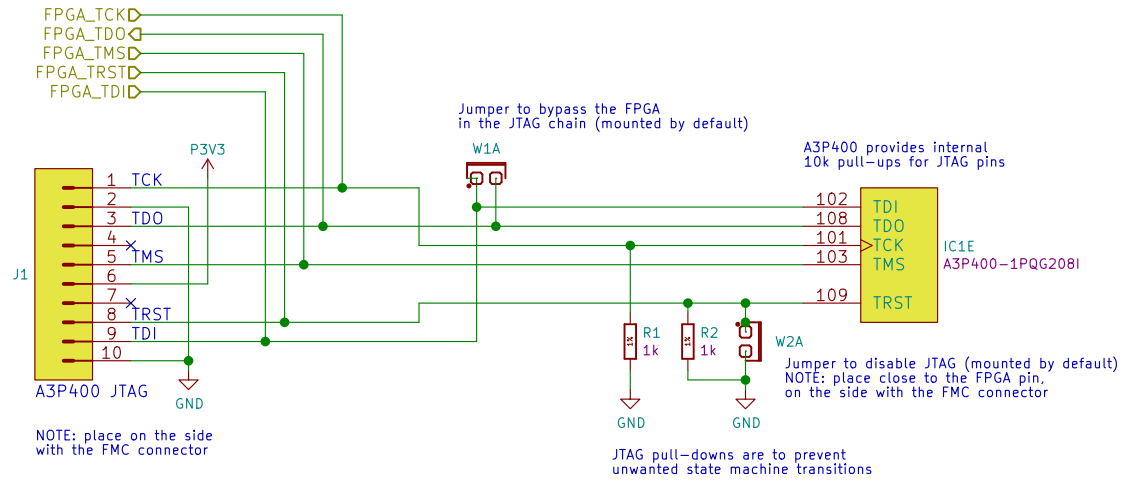
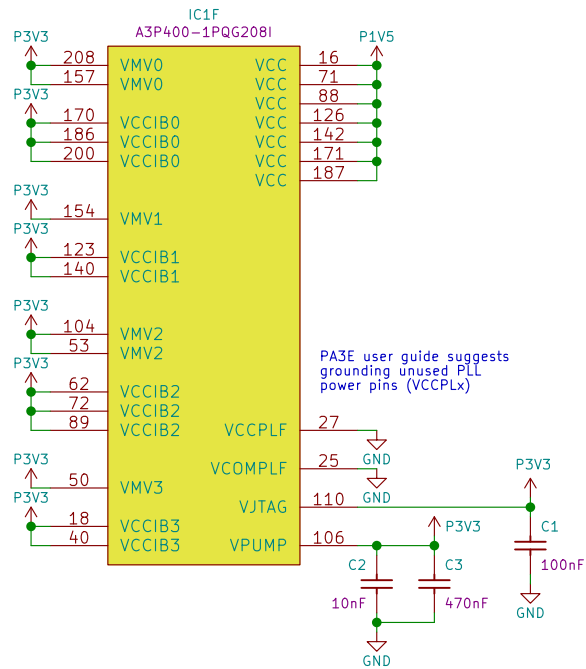
CERN
 Sheet: /
 File: fmc-nanofip.sch

Title: FMC-nanoFIP

Size: A4 Date: 2017-07-26
 KiCad E.D.A. kicad (2017-07-25 revision 161045f17)-master

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Sheet: /Power & JTAG/
 File: nanofip_misc.sch

Title: FMC-nanofIP JTAG & Power

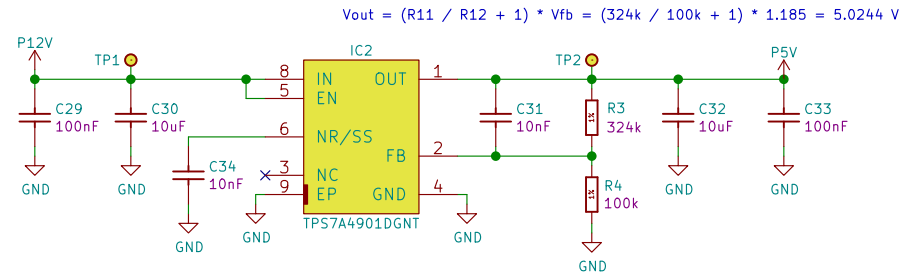
Size: A4 Date: 2017-07-26

Rev: 8

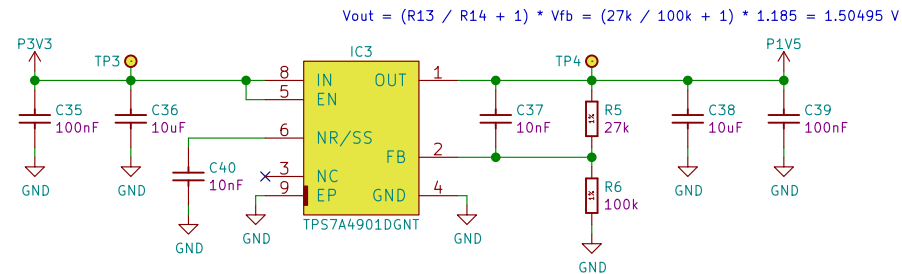
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place testpoints on the side without the FMC connector



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Sheet: /Power supply/
 File: power.sch

Title: FMC-nanoFIP power supply

Size: A4 Date: 2017-07-26
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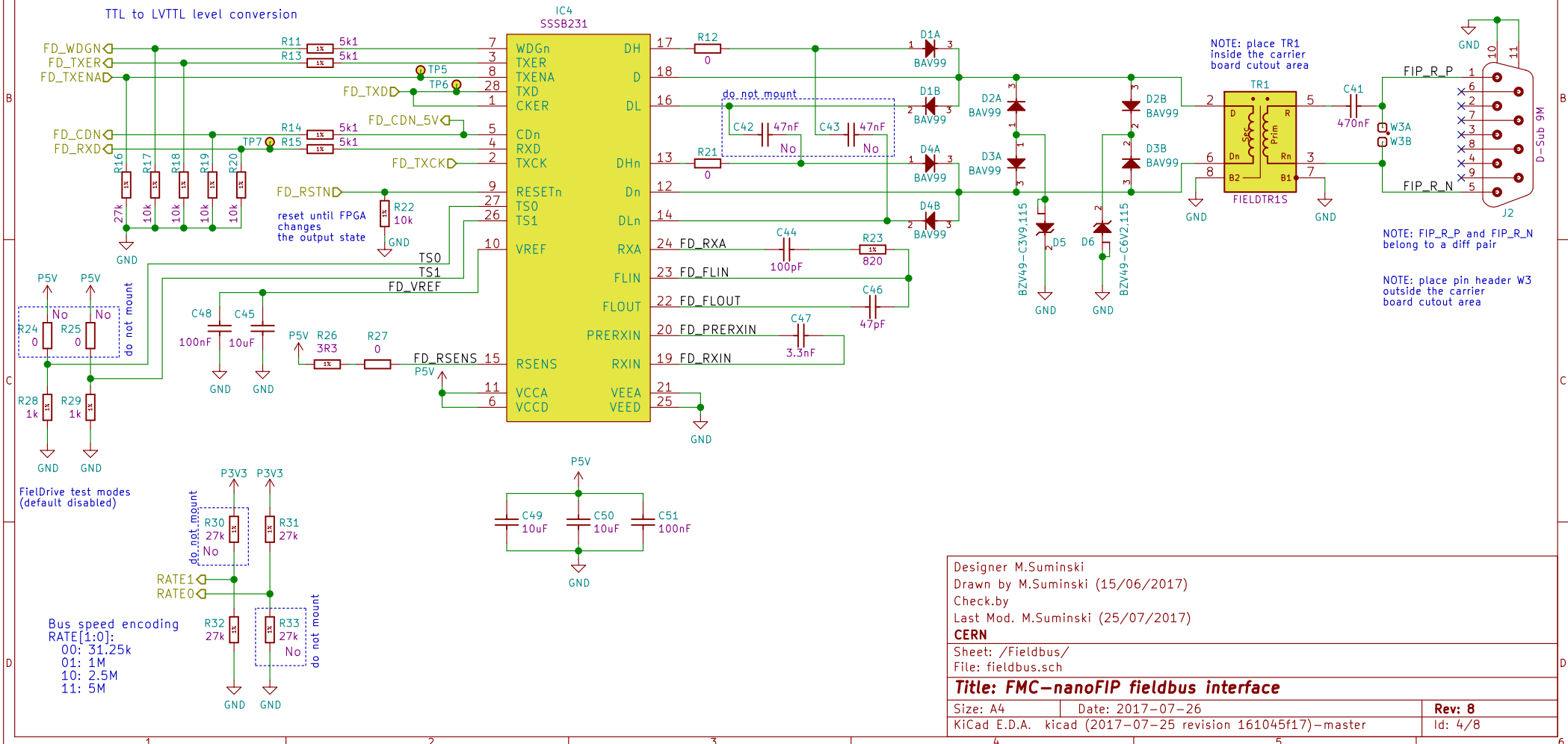
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nanoFIP bus speed

marking resistor	31.25k $\times \begin{matrix} R7 \\ 0 \end{matrix} \times$	1M $\times \begin{matrix} R8 \\ 0 \end{matrix} \times$	2.5M $\times \begin{matrix} R9 \\ 0 \end{matrix} \times$	5M $\times \begin{matrix} R10 \\ 0 \end{matrix} \times$
	do_not_mount	0 No	do_not_mount	0 No
C41	3.3uF	470nF	100nF	100nF
C47	100nF	3.3nF	1.5nF	1.5nF
C46	1nF	47pF	27pF	27pF
C44	15nF	100pF	33pF	33pF
C42, C43	47nF	not mounted	not mounted	not mounted
D6	BZV49-C8V2	BZV49-C6V2	BZV49-C6V2	BZV49-C6V2
D1, D4	BAT54S	BAV99	BAV99	BAV99
D5	BZV49-C4V7	BZV49-C3V9	BZV49-C3V9	BZV49-C3V9
R27	3R3	0R	0R	0R
R23	330R	820R	820R	820R
R30	not mounted	not mounted	27k	27k
R31	not mounted	27k	not mounted	27k
R32	27k	not mounted	not mounted	not mounted
R33	27k	not mounted	27k	not mounted
TR1	FIELDTR_31.25S	FIELDTR_1S	FIELDTR_2.5S	FIELDTR_2.5S

NOTE: place a label indicating bus speed next to the marking resistors

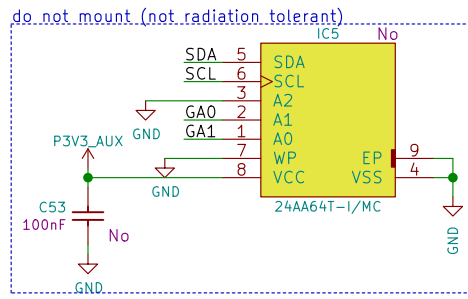
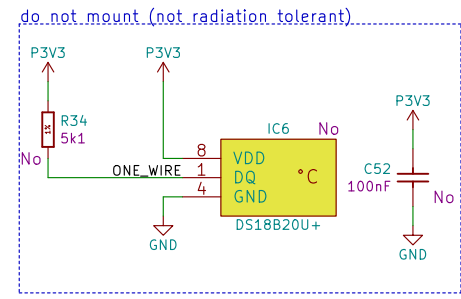
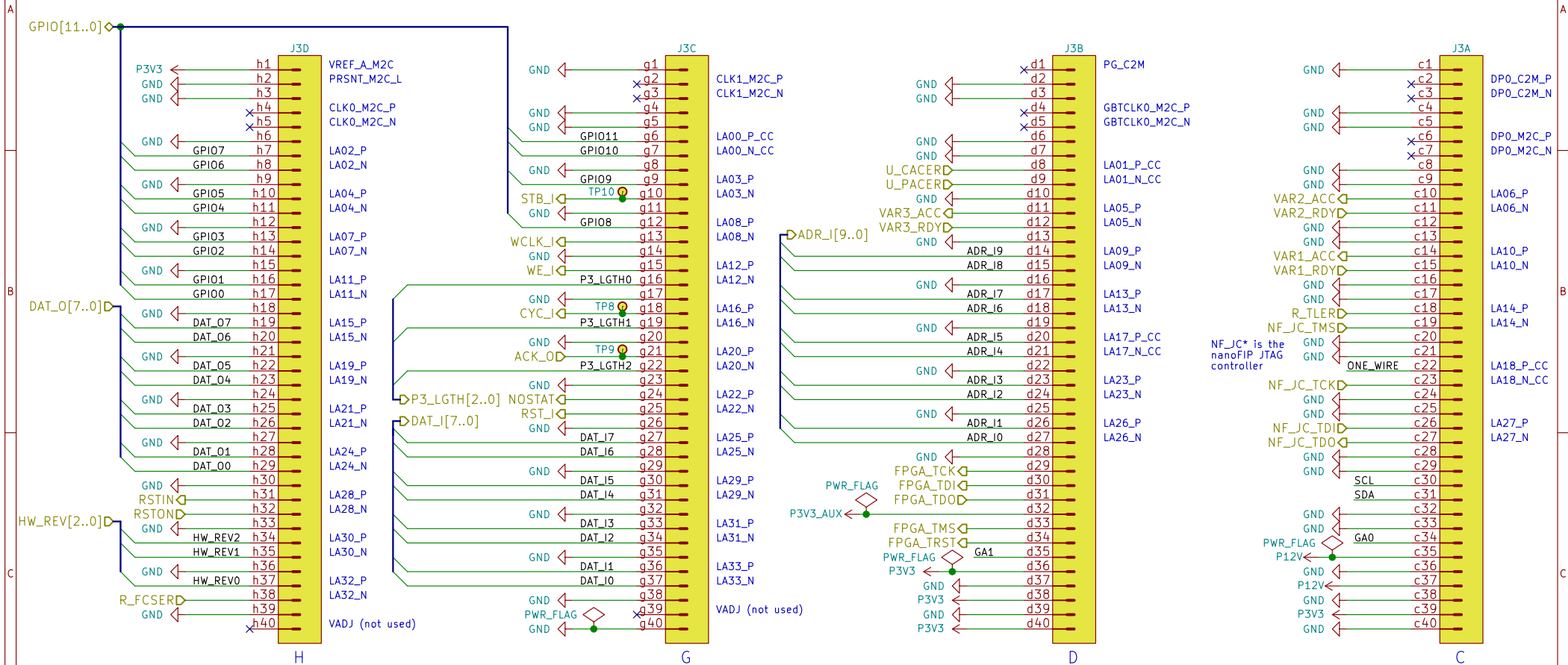
selected variant



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Sheet: /Fieldbus/	
File: fieldbus.sch	
Title: FMC-nanoFIP fieldbus interface	
Size: A4	Date: 2017-07-26
KiCad E.D.A. kicad (2017-07-25 revision 161045f17)-master	Rev: 8
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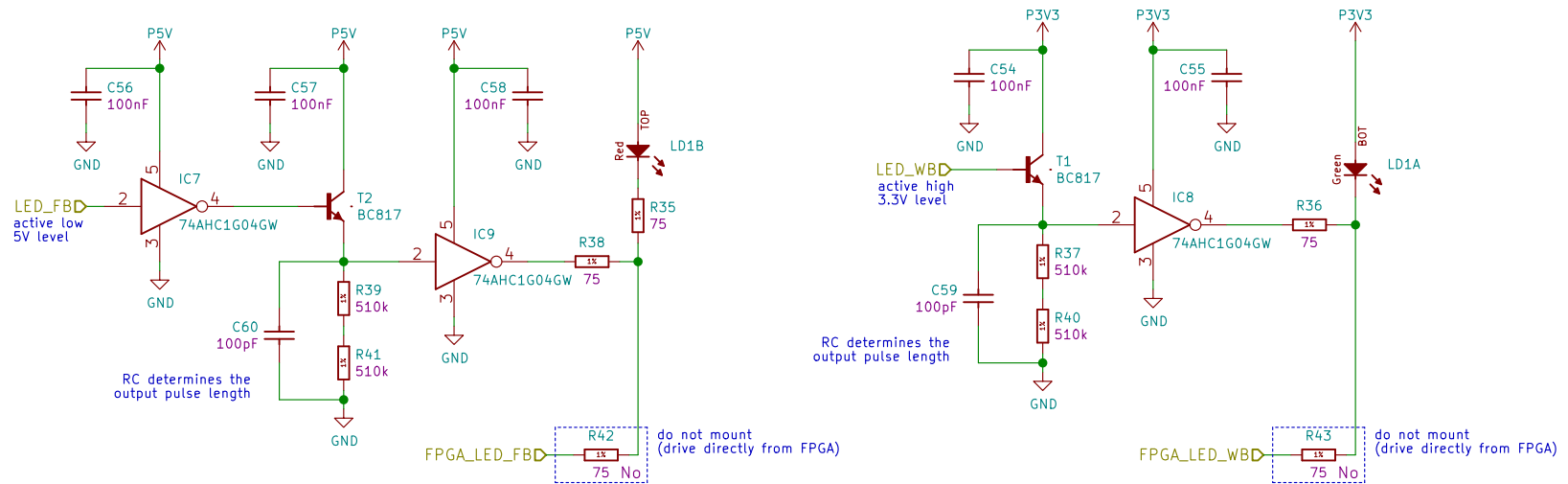
NOTE: pin swapping between LA* pins possible
 place test points on the side without the FMC connector



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Sheet: /FMC/	
File: fmc.sch	
Title: FMC-nanoFIP FMC connector (LPC)	
Size: A4	Date: 2017-07-26
KiCad E.D.A. kicad (2017-07-25 revision 161045f17)-master	Rev: 8
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One-shot triggers to extend the LED pulse duration



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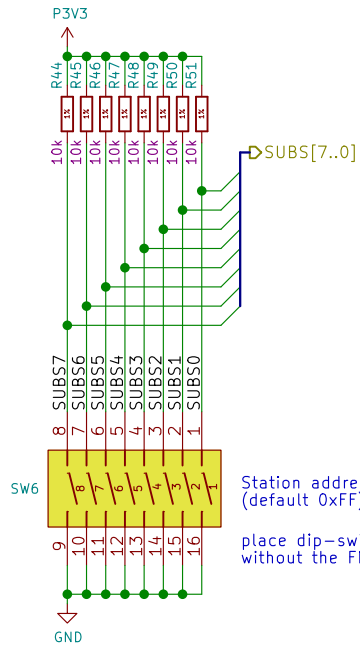
Sheet: /LEDs/
 File: leds.sch

Title: FMC-nanoFIP LEDs

Size: A4 Date: 2017-07-26
 KiCad E.D.A. kicad (2017-07-25 revision 161045f17)-master

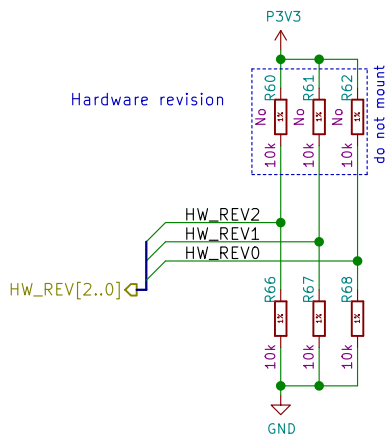
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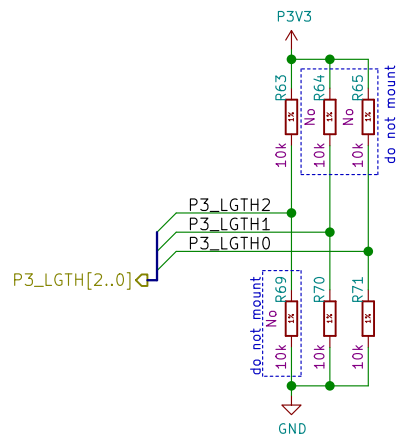


Station address
(default 0xFF)

place dip-switches on the side
without the FMC connector



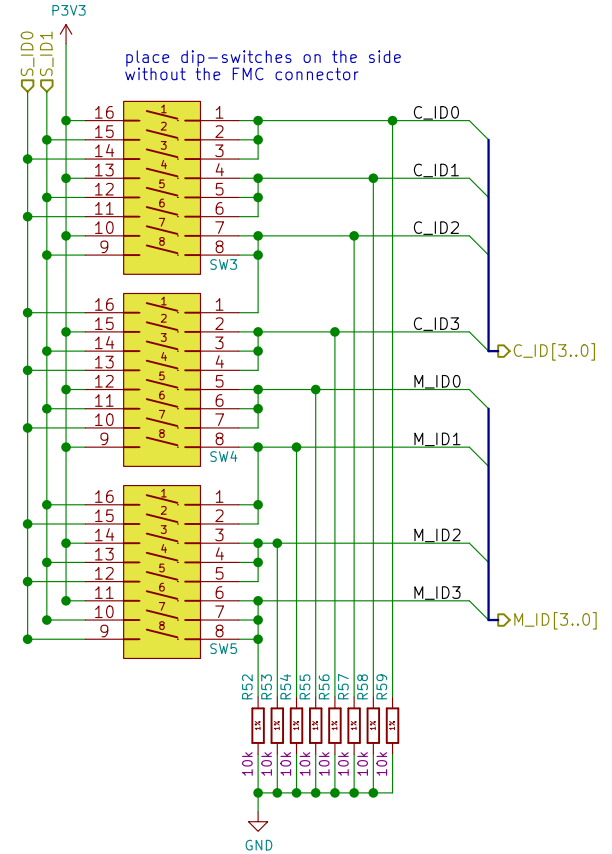
Hardware revision



Produced variable data length

P3_LGTH[2:0]:
 000: 2 bytes
 001: 8 bytes
 010: 16 bytes
 011: 32 bytes
 100: 64 bytes (default)
 101: 124 bytes
 other: reserved

(FMC signals can override the
value set with resistors)



Constructor & Model ID (default 0x00)

C_ID[i]/M_ID[i] connected to: Gnd S_ID0 S_ID1 Vcc
 Constructor/Model[2*i] 0 1 0 1
 Constructor/Model[2*i+1] 0 0 1 1

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Sheet: /nanoFIP settings/
 File: settings.sch

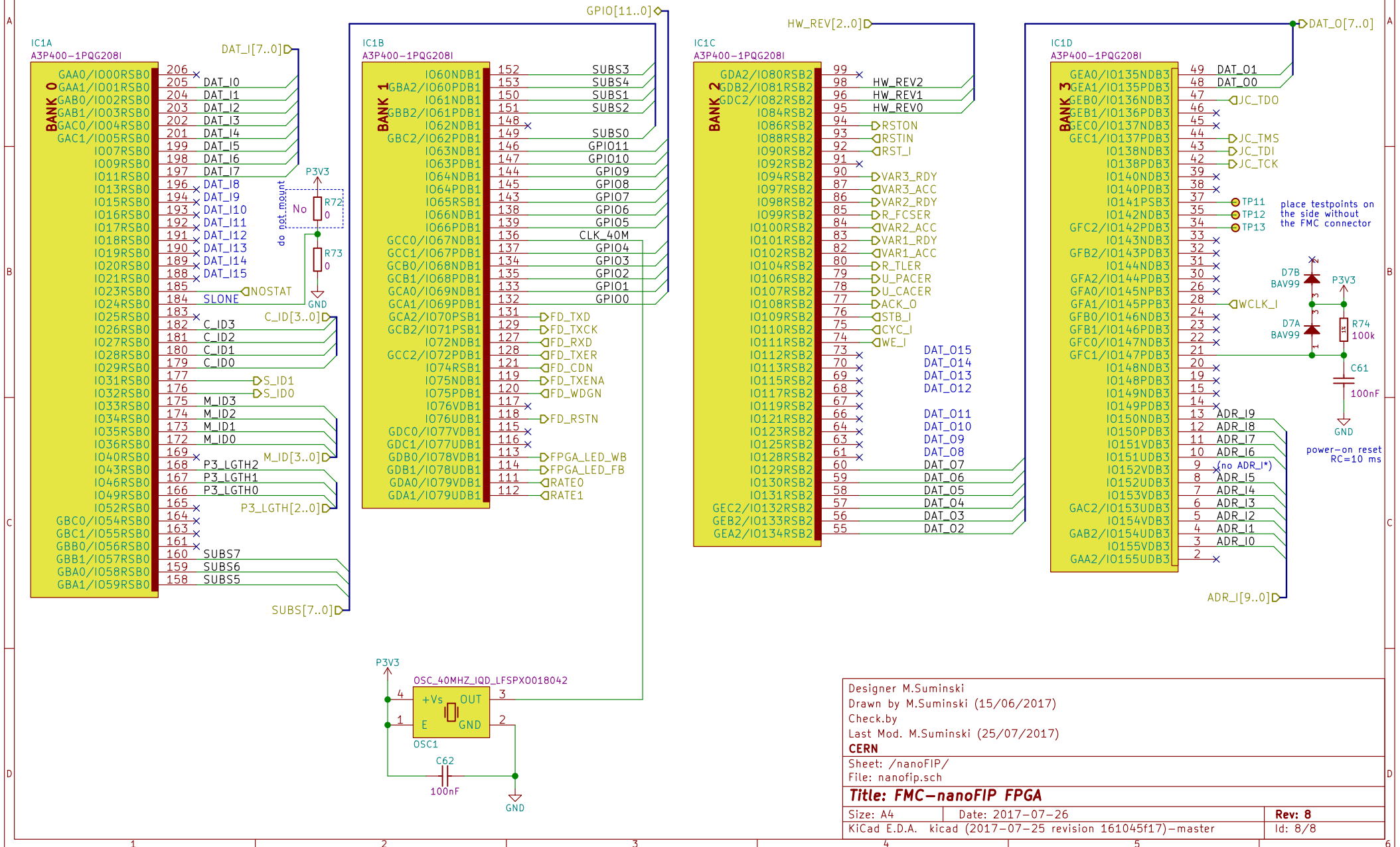
Title: FMC-nanoFIP settings

Size: A4 Date: 2017-07-26
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NOTE: pin swapping not possible
 (only GPIO pins can be moved)
 nanoFIP FPGA (IC1) is preprogrammed



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Sheet: /nanoFIP/	
File: nanofip.sch	
Title: FMC-nanoFIP FPGA	
Size: A4	Date: 2017-07-26
KiCad E.D.A. kicad (2017-07-25 revision 161045f17)-master	Rev: 8
	Id: 8/8