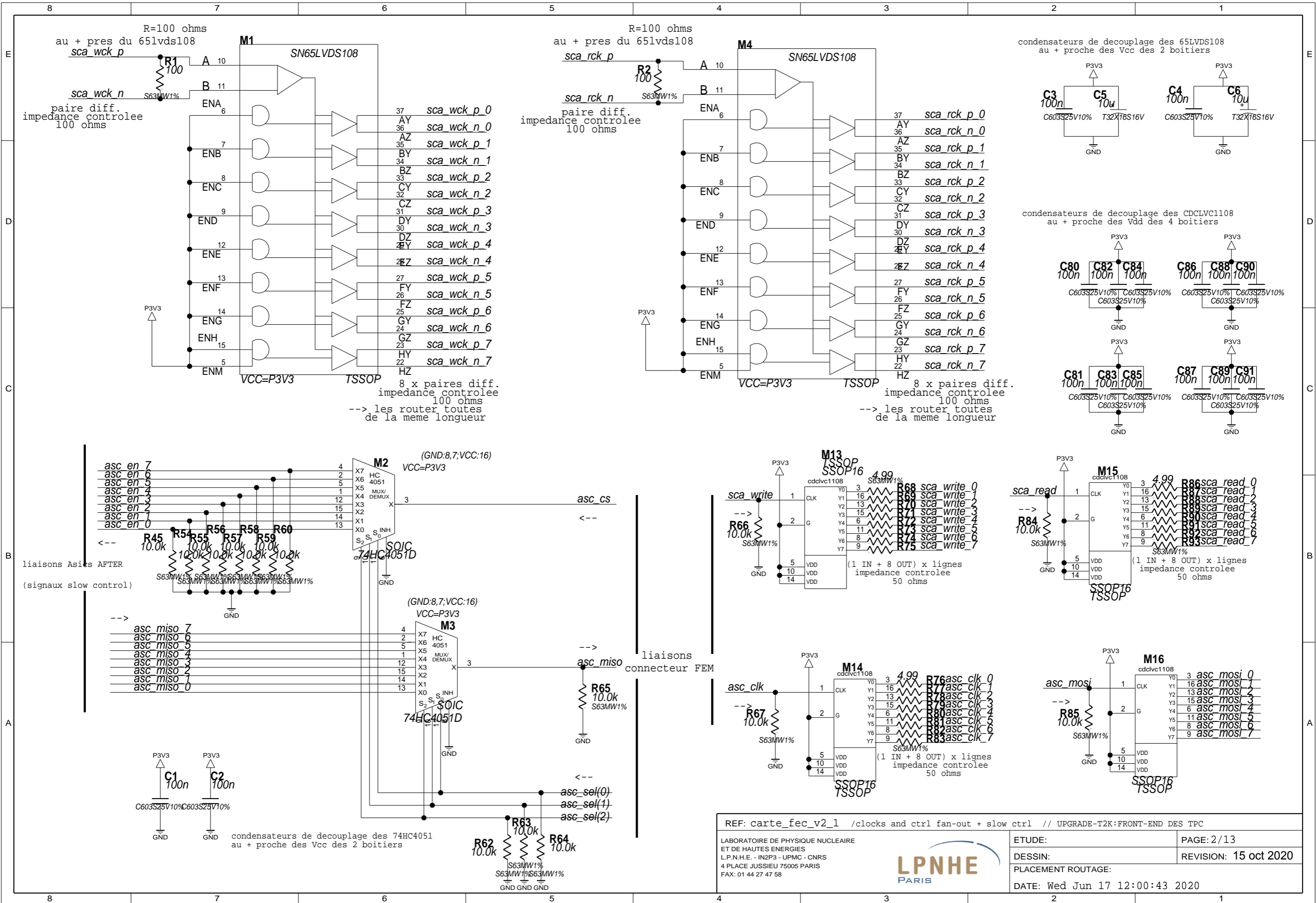


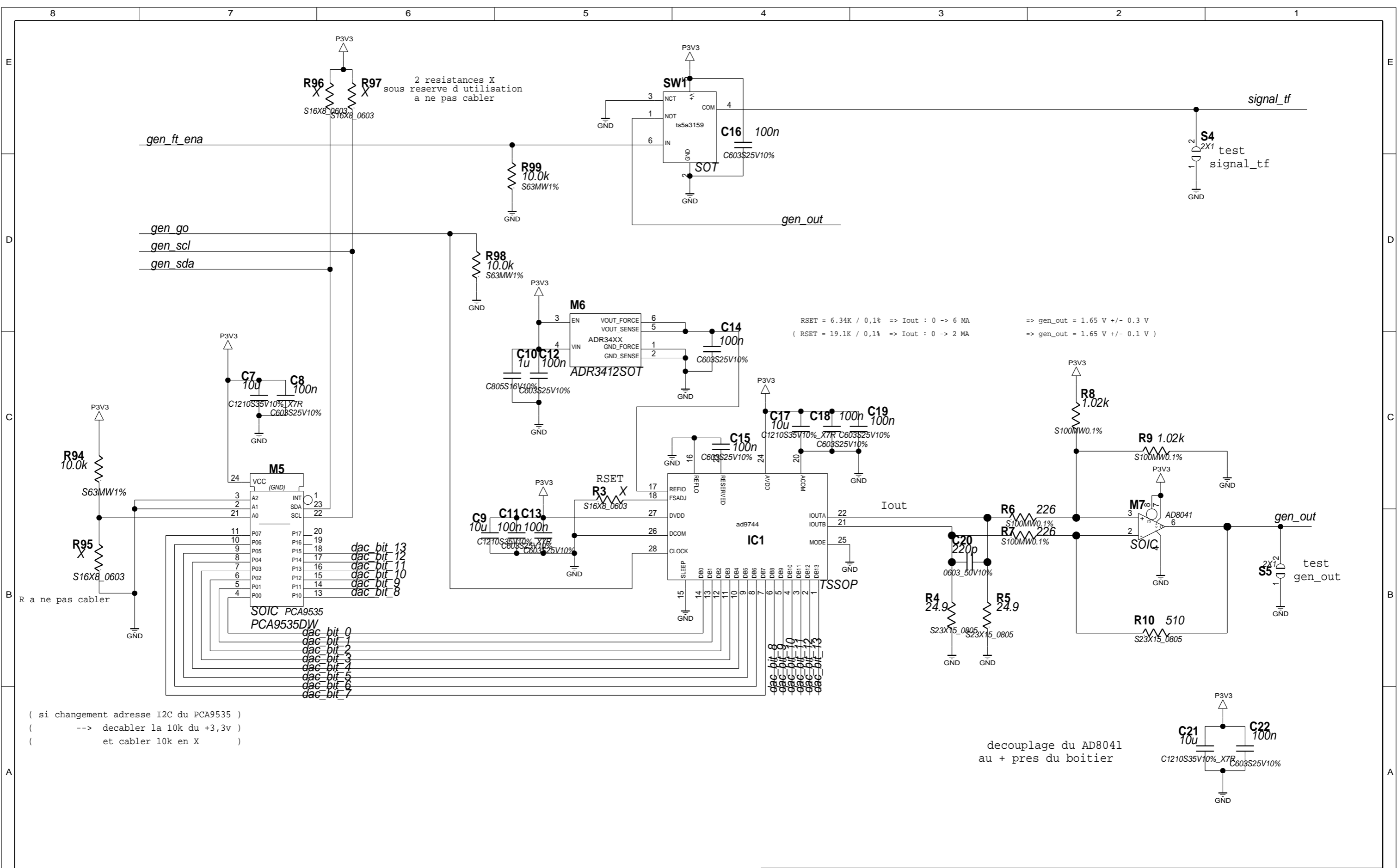
decouplage +3,3v a placer  
en haut de la carte FEC

P3V3  
C79  
470u  
SFK100  
GND

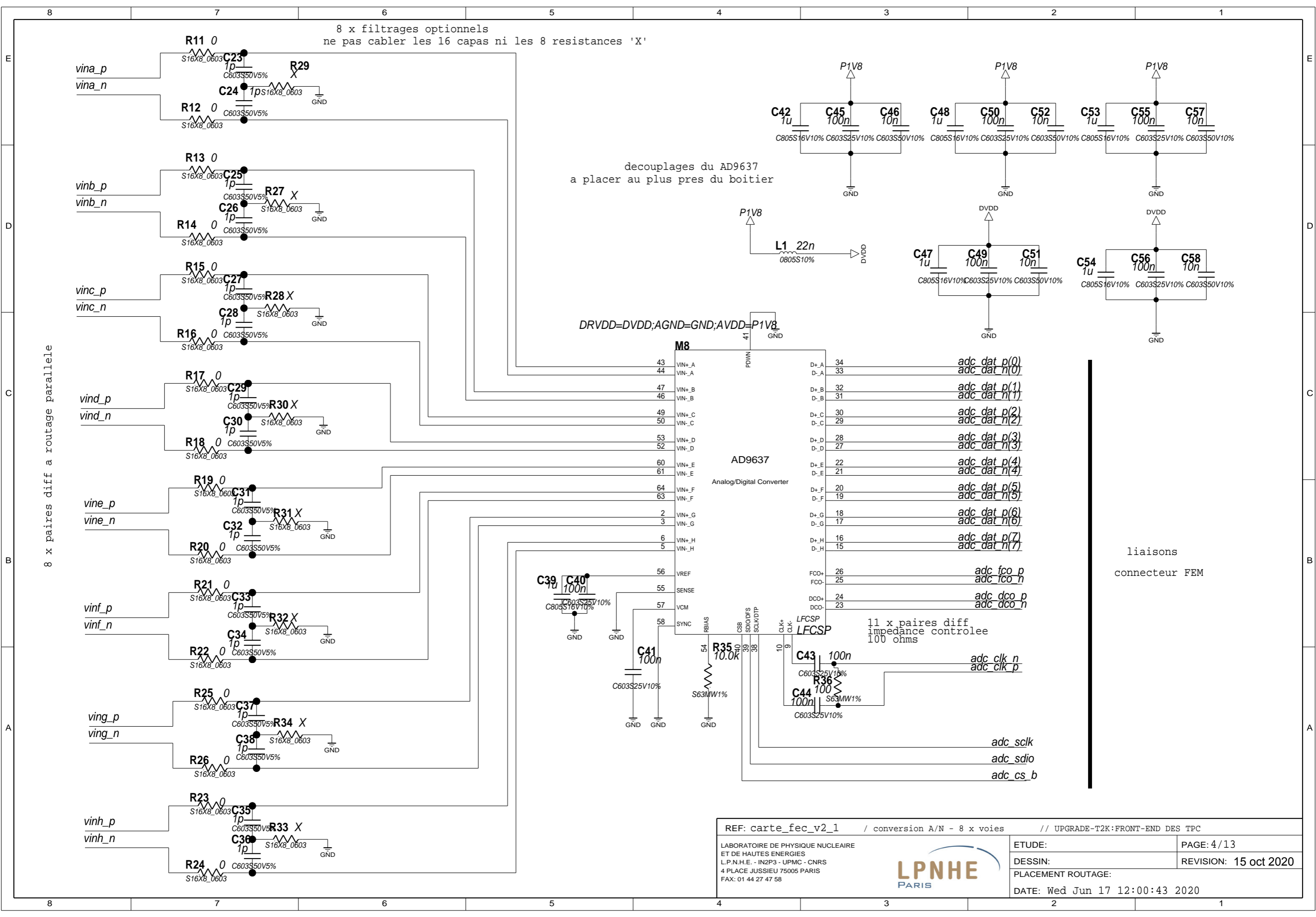
decouplage +3,3v a placer  
en bas de la carte FEC

P3V3  
C78  
470u  
SFK100  
GND

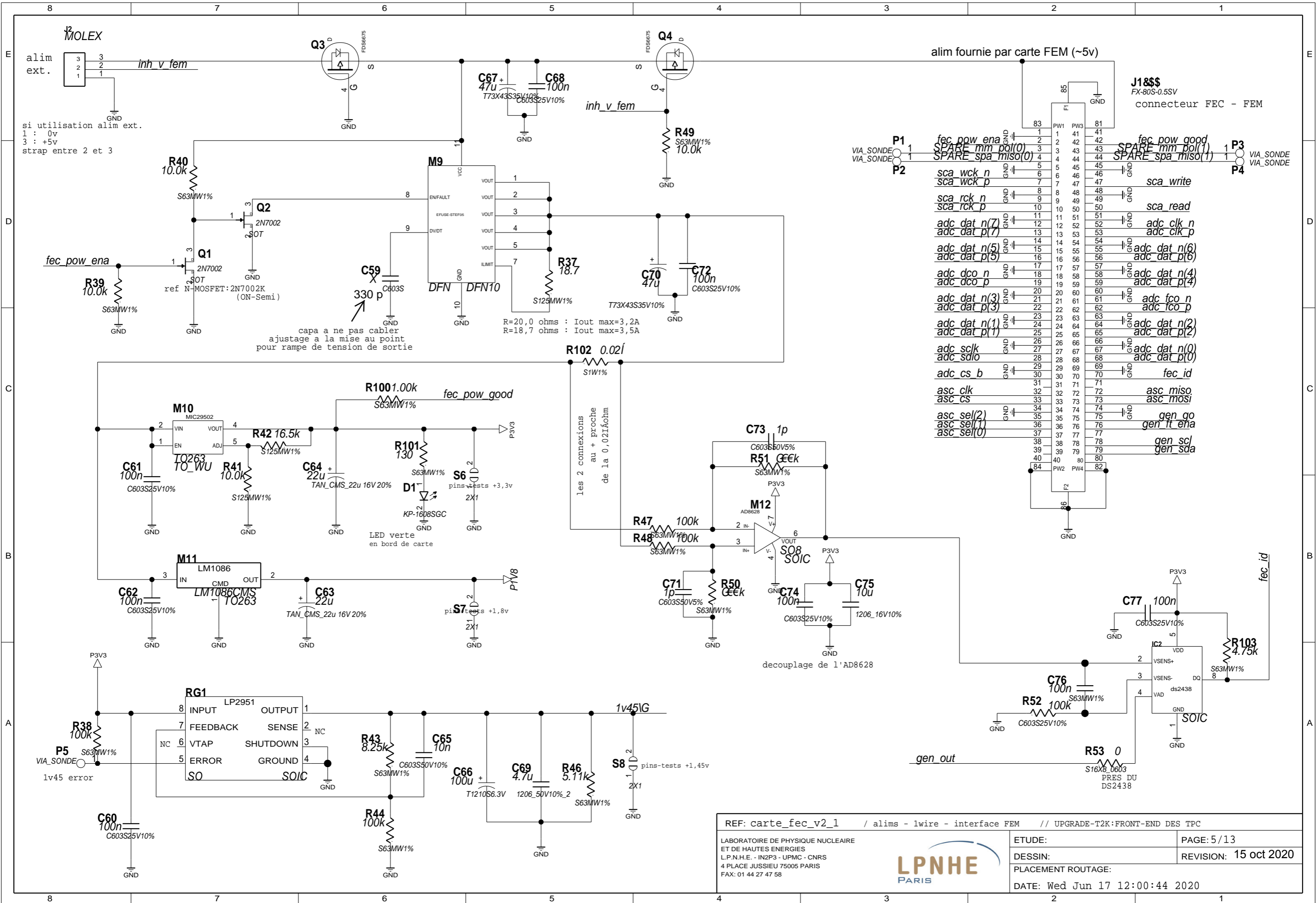


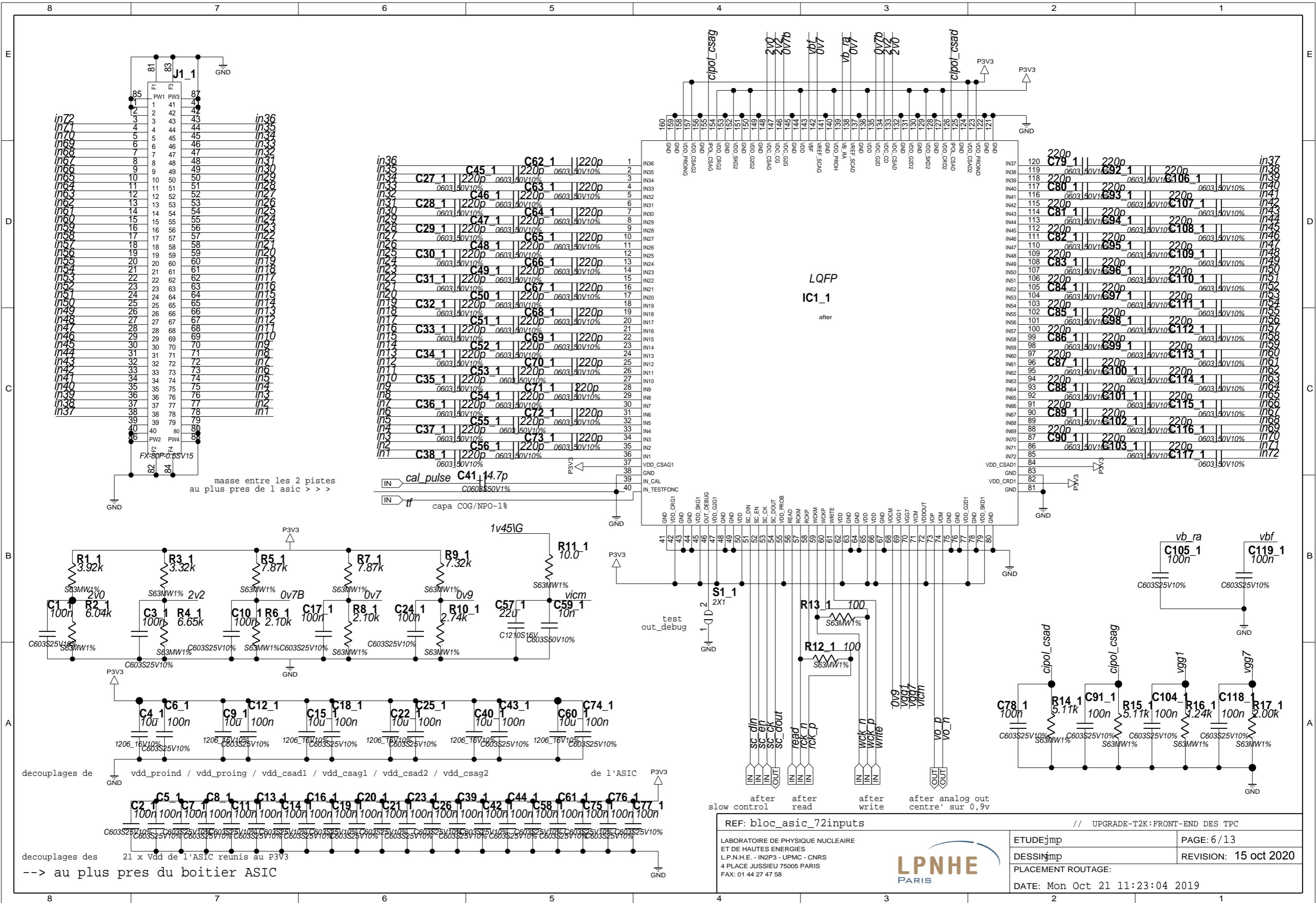


( si changement adresse I2C du PCA9535 )  
 ( --> decabler la 10k du +3,3v )  
 ( et cabler 10k en X )



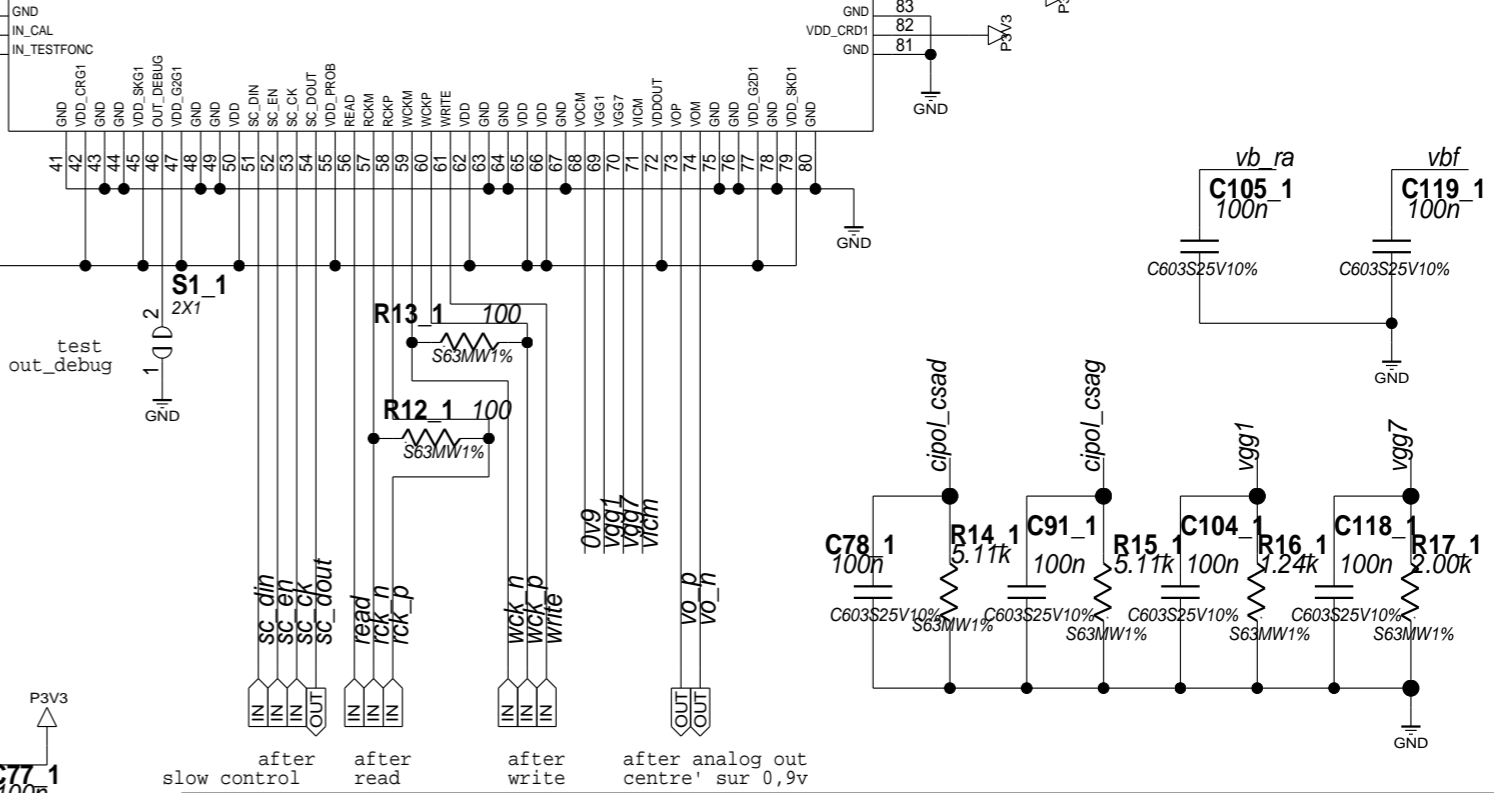






in36	C45	1	220p	0603	50V10%	1	IN36
in35	C27	1	220p	0603	50V10%	2	IN35
in34	C46	1	220p	0603	50V10%	3	IN34
in33	C63	1	220p	0603	50V10%	4	IN33
in32	C47	1	220p	0603	50V10%	5	IN32
in31	C28	1	220p	0603	50V10%	6	IN31
in30	C64	1	220p	0603	50V10%	7	IN30
in29	C48	1	220p	0603	50V10%	8	IN29
in28	C29	1	220p	0603	50V10%	9	IN28
in27	C65	1	220p	0603	50V10%	10	IN27
in26	C49	1	220p	0603	50V10%	11	IN26
in25	C30	1	220p	0603	50V10%	12	IN25
in24	C66	1	220p	0603	50V10%	13	IN24
in23	C50	1	220p	0603	50V10%	14	IN23
in22	C67	1	220p	0603	50V10%	15	IN22
in21	C31	1	220p	0603	50V10%	16	IN21
in20	C51	1	220p	0603	50V10%	17	IN20
in19	C68	1	220p	0603	50V10%	18	IN19
in18	C32	1	220p	0603	50V10%	19	IN18
in17	C52	1	220p	0603	50V10%	20	IN17
in16	C69	1	220p	0603	50V10%	21	IN16
in15	C33	1	220p	0603	50V10%	22	IN15
in14	C53	1	220p	0603	50V10%	23	IN14
in13	C60	1	220p	0603	50V10%	24	IN13
in12	C34	1	220p	0603	50V10%	25	IN12
in11	C54	1	220p	0603	50V10%	26	IN11
in10	C70	1	220p	0603	50V10%	27	IN10
in9	C35	1	220p	0603	50V10%	28	IN9
in8	C55	1	220p	0603	50V10%	29	IN8
in7	C71	1	220p	0603	50V10%	30	IN7
in6	C36	1	220p	0603	50V10%	31	IN6
in5	C72	1	220p	0603	50V10%	32	IN5
in4	C56	1	220p	0603	50V10%	33	IN4
in3	C73	1	220p	0603	50V10%	34	IN3
in2	C37	1	220p	0603	50V10%	35	IN2
in1	C57	1	220p	0603	50V10%	36	IN1
	C38	1	220p	0603	50V10%	37	IN1

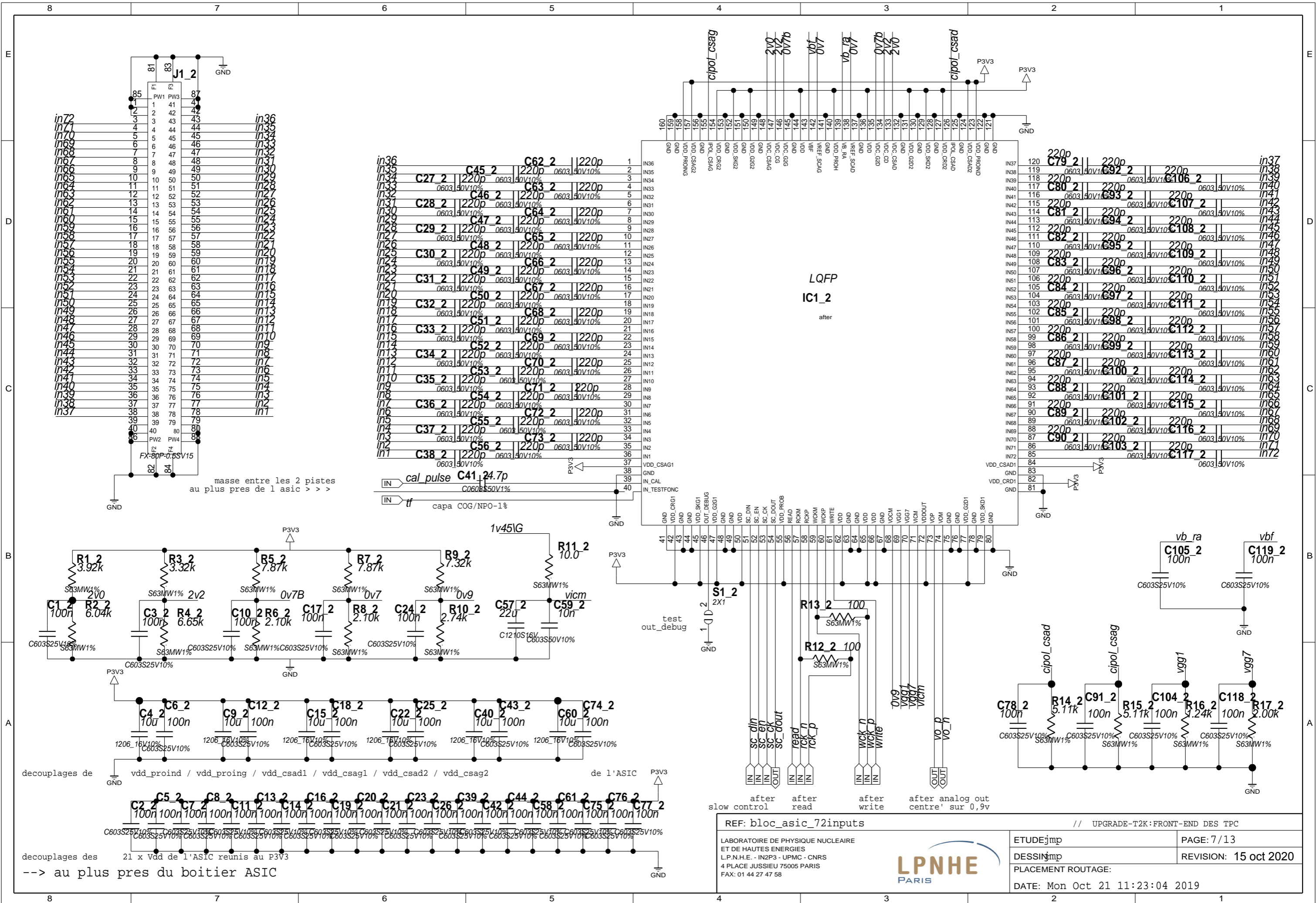
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in38	C92	1	220p	0603	50V10%	119	IN38
in39	C106	1	220p	0603	50V10%	118	IN39
in40	C80	1	220p	0603	50V10%	117	IN40
in41	C93	1	220p	0603	50V10%	116	IN41
in42	C107	1	220p	0603	50V10%	115	IN42
in43	C81	1	220p	0603	50V10%	114	IN43
in44	C94	1	220p	0603	50V10%	113	IN44
in45	C108	1	220p	0603	50V10%	112	IN45
in46	C82	1	220p	0603	50V10%	111	IN46
in47	C95	1	220p	0603	50V10%	110	IN47
in48	C109	1	220p	0603	50V10%	109	IN48
in49	C83	1	220p	0603	50V10%	108	IN49
in50	C96	1	220p	0603	50V10%	107	IN50
in51	C110	1	220p	0603	50V10%	106	IN51
in52	C84	1	220p	0603	50V10%	105	IN52
in53	C97	1	220p	0603	50V10%	104	IN53
in54	C111	1	220p	0603	50V10%	103	IN54
in55	C85	1	220p	0603	50V10%	102	IN55
in56	C98	1	220p	0603	50V10%	101	IN56
in57	C112	1	220p	0603	50V10%	100	IN57
in58	C86	1	220p	0603	50V10%	99	IN58
in59	C99	1	220p	0603	50V10%	98	IN59
in60	C113	1	220p	0603	50V10%	97	IN60
in61	C87	1	220p	0603	50V10%	96	IN61
in62	C100	1	220p	0603	50V10%	95	IN62
in63	C114	1	220p	0603	50V10%	94	IN63
in64	C88	1	220p	0603	50V10%	93	IN64
in65	C101	1	220p	0603	50V10%	92	IN65
in66	C115	1	220p	0603	50V10%	91	IN66
in67	C89	1	220p	0603	50V10%	90	IN67
in68	C102	1	220p	0603	50V10%	89	IN68
in69	C116	1	220p	0603	50V10%	88	IN69
in70	C90	1	220p	0603	50V10%	87	IN70
in71	C103	1	220p	0603	50V10%	86	IN71
in72	C117	1	220p	0603	50V10%	85	IN72



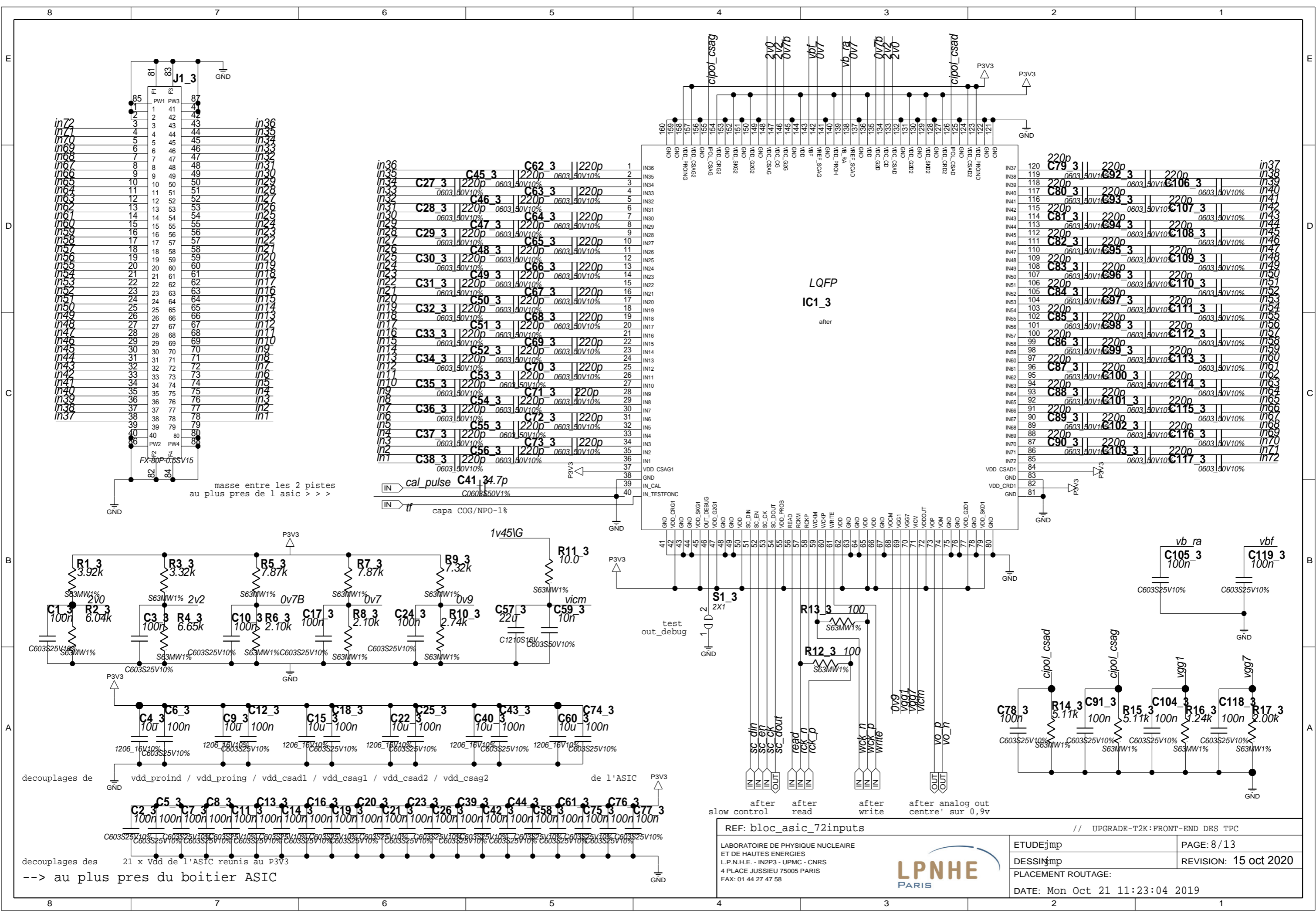
LABORATOIRE DE PHYSIQUE NUCLEAIRE  
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FAX: 01 44 27 47 58

**LPNHE**  
PARIS

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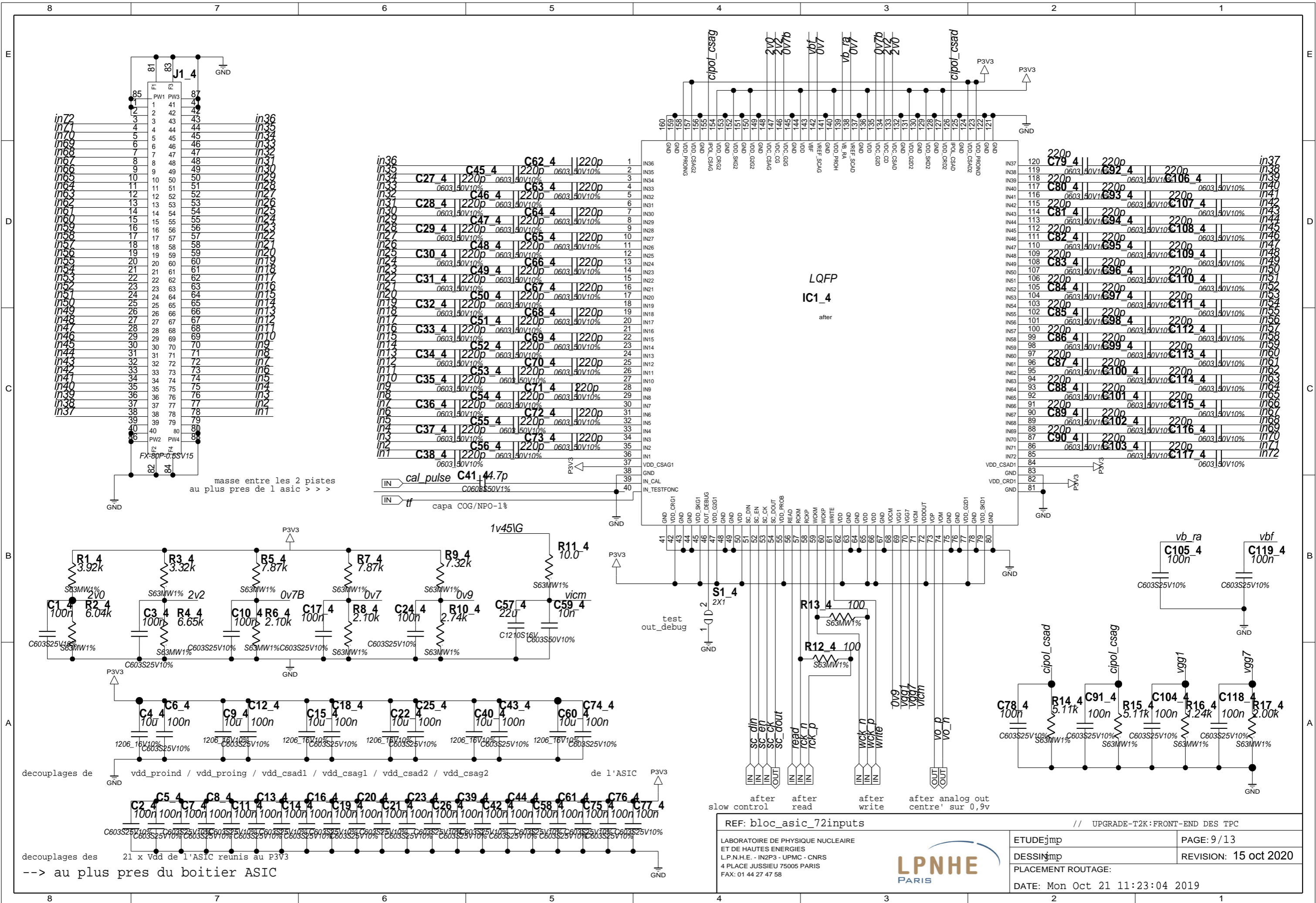
masse entre les 2 pistes  
au plus pres de l asic >>>

decouplages de vdd\_proind / vdd\_proing / vdd\_csad1 / vdd\_csag1 / vdd\_csad2 / vdd\_csag2 de l'ASIC

decouplages des 21 x Vdd de l'ASIC reunis au P3V3

--> au plus pres du boitier ASIC





in36	C45 4	220p	0603	50V10%	1	IN36
in35	C27 4	220p	0603	50V10%	2	IN35
in34	C46 4	220p	0603	50V10%	3	IN34
in33	C62 4	220p	0603	50V10%	4	IN33
in32	C63 4	220p	0603	50V10%	5	IN32
in31	C28 4	220p	0603	50V10%	6	IN31
in30	C47 4	220p	0603	50V10%	7	IN30
in29	C64 4	220p	0603	50V10%	8	IN29
in28	C29 4	220p	0603	50V10%	9	IN28
in27	C48 4	220p	0603	50V10%	10	IN27
in26	C65 4	220p	0603	50V10%	11	IN26
in25	C30 4	220p	0603	50V10%	12	IN25
in24	C49 4	220p	0603	50V10%	13	IN24
in23	C66 4	220p	0603	50V10%	14	IN23
in22	C31 4	220p	0603	50V10%	15	IN22
in21	C50 4	220p	0603	50V10%	16	IN21
in20	C67 4	220p	0603	50V10%	17	IN20
in19	C32 4	220p	0603	50V10%	18	IN19
in18	C51 4	220p	0603	50V10%	19	IN18
in17	C68 4	220p	0603	50V10%	20	IN17
in16	C33 4	220p	0603	50V10%	21	IN16
in15	C52 4	220p	0603	50V10%	22	IN15
in14	C69 4	220p	0603	50V10%	23	IN14
in13	C34 4	220p	0603	50V10%	24	IN13
in12	C53 4	220p	0603	50V10%	25	IN12
in11	C70 4	220p	0603	50V10%	26	IN11
in10	C35 4	220p	0603	50V10%	27	IN10
in9	C54 4	220p	0603	50V10%	28	IN9
in8	C71 4	220p	0603	50V10%	29	IN8
in7	C36 4	220p	0603	50V10%	30	IN7
in6	C55 4	220p	0603	50V10%	31	IN6
in5	C72 4	220p	0603	50V10%	32	IN5
in4	C37 4	220p	0603	50V10%	33	IN4
in3	C56 4	220p	0603	50V10%	34	IN3
in2	C73 4	220p	0603	50V10%	35	IN2
in1	C38 4	220p	0603	50V10%	36	IN1

in37	C79 4	220p	0603	50V10%	120	IN37
in38	C92 4	220p	0603	50V10%	119	IN38
in39	C106 4	220p	0603	50V10%	118	IN39
in40	C80 4	220p	0603	50V10%	117	IN40
in41	C93 4	220p	0603	50V10%	116	IN41
in42	C107 4	220p	0603	50V10%	115	IN42
in43	C81 4	220p	0603	50V10%	114	IN43
in44	C94 4	220p	0603	50V10%	113	IN44
in45	C108 4	220p	0603	50V10%	112	IN45
in46	C82 4	220p	0603	50V10%	111	IN46
in47	C95 4	220p	0603	50V10%	110	IN47
in48	C109 4	220p	0603	50V10%	109	IN48
in49	C83 4	220p	0603	50V10%	108	IN49
in50	C96 4	220p	0603	50V10%	107	IN50
in51	C110 4	220p	0603	50V10%	106	IN51
in52	C84 4	220p	0603	50V10%	105	IN52
in53	C97 4	220p	0603	50V10%	104	IN53
in54	C111 4	220p	0603	50V10%	103	IN54
in55	C85 4	220p	0603	50V10%	102	IN55
in56	C98 4	220p	0603	50V10%	101	IN56
in57	C112 4	220p	0603	50V10%	100	IN57
in58	C86 4	220p	0603	50V10%	99	IN58
in59	C99 4	220p	0603	50V10%	98	IN59
in60	C113 4	220p	0603	50V10%	97	IN60
in61	C87 4	220p	0603	50V10%	96	IN61
in62	C100 4	220p	0603	50V10%	95	IN62
in63	C114 4	220p	0603	50V10%	94	IN63
in64	C88 4	220p	0603	50V10%	93	IN64
in65	C101 4	220p	0603	50V10%	92	IN65
in66	C115 4	220p	0603	50V10%	91	IN66
in67	C89 4	220p	0603	50V10%	90	IN67
in68	C102 4	220p	0603	50V10%	89	IN68
in69	C116 4	220p	0603	50V10%	88	IN69
in70	C90 4	220p	0603	50V10%	87	IN70
in71	C103 4	220p	0603	50V10%	86	IN71
in72	C117 4	220p	0603	50V10%	85	IN72

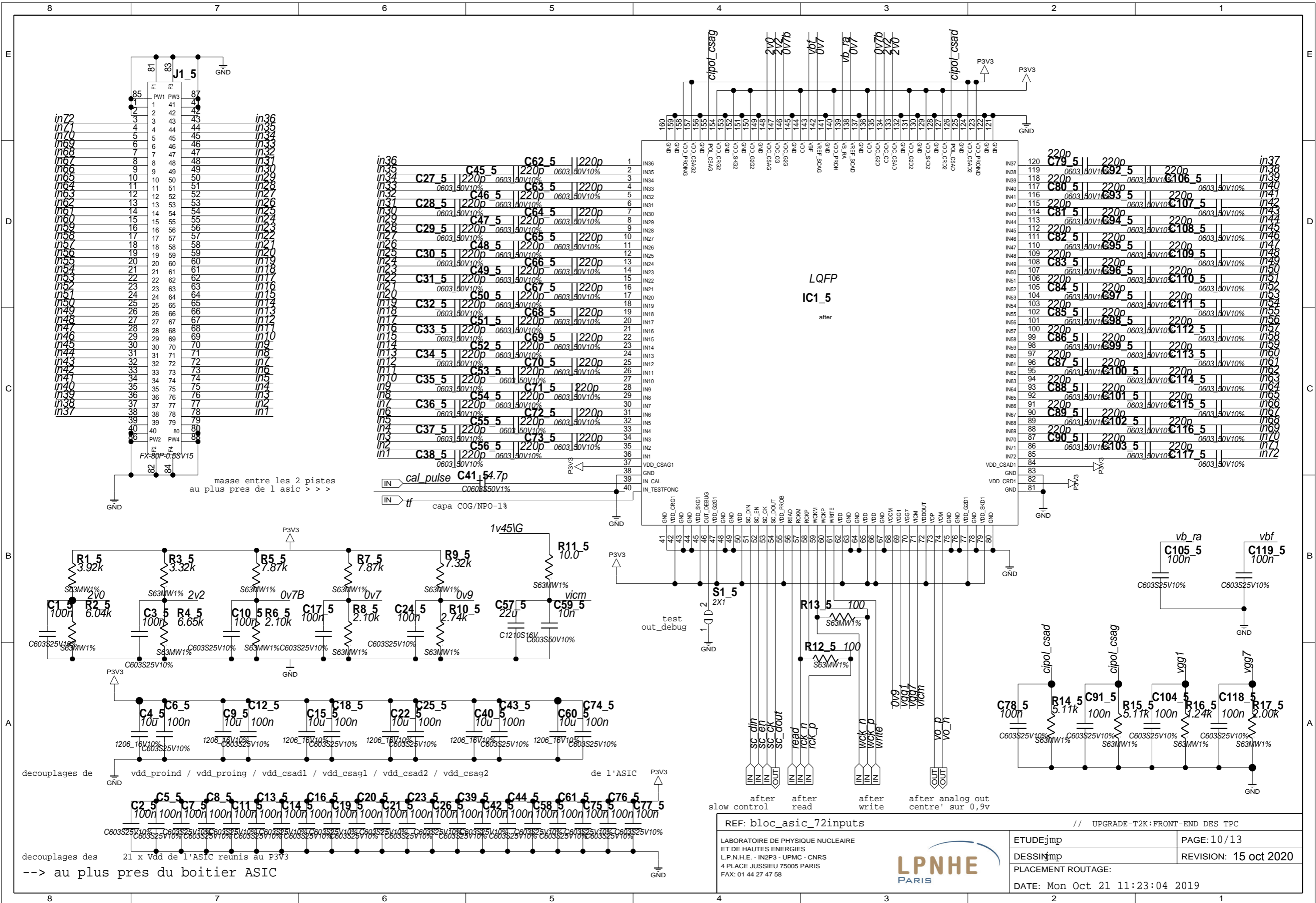
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4 PLACE JUSSIEU 75005 PARIS  
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masse entre les 2 pistes  
au plus pres de l asic >>>

decouplages de vdd\_proind / vdd\_proing / vdd\_csad1 / vdd\_csag1 / vdd\_csad2 / vdd\_csag2 de l'ASIC

decouplages des 21 x Vdd de l'ASIC reunis au P3V3

--> au plus pres du boitier ASIC

in36	C45 5	220p	0603,50V10%	1	IN36
in35	C27 5	220p	0603,50V10%	2	IN35
in34				3	IN34
in33	C46 5	220p	0603,50V10%	4	IN33
in32	C28 5	220p	0603,50V10%	5	IN32
in31				6	IN31
in30	C47 5	220p	0603,50V10%	7	IN30
in29	C29 5	220p	0603,50V10%	8	IN29
in28				9	IN28
in27	C48 5	220p	0603,50V10%	10	IN27
in26	C30 5	220p	0603,50V10%	11	IN26
in25				12	IN25
in24	C49 5	220p	0603,50V10%	13	IN24
in23	C31 5	220p	0603,50V10%	14	IN23
in22				15	IN22
in21	C50 5	220p	0603,50V10%	16	IN21
in20	C32 5	220p	0603,50V10%	17	IN20
in19				18	IN19
in18	C51 5	220p	0603,50V10%	19	IN18
in17	C33 5	220p	0603,50V10%	20	IN17
in16				21	IN16
in15	C52 5	220p	0603,50V10%	22	IN15
in14	C34 5	220p	0603,50V10%	23	IN14
in13				24	IN13
in12	C53 5	220p	0603,50V10%	25	IN12
in11	C35 5	220p	0603,50V10%	26	IN11
in10				27	IN10
in9	C54 5	220p	0603,50V10%	28	IN9
in8	C36 5	220p	0603,50V10%	29	IN8
in7				30	IN7
in6	C55 5	220p	0603,50V10%	31	IN6
in5	C37 5	220p	0603,50V10%	32	IN5
in4				33	IN4
in3	C56 5	220p	0603,50V10%	34	IN3
in2	C38 5	220p	0603,50V10%	35	IN2
in1				36	IN1

REF: bloc\_asic\_72inputs // UPGRADE-T2K:FRONT-END DES TPC

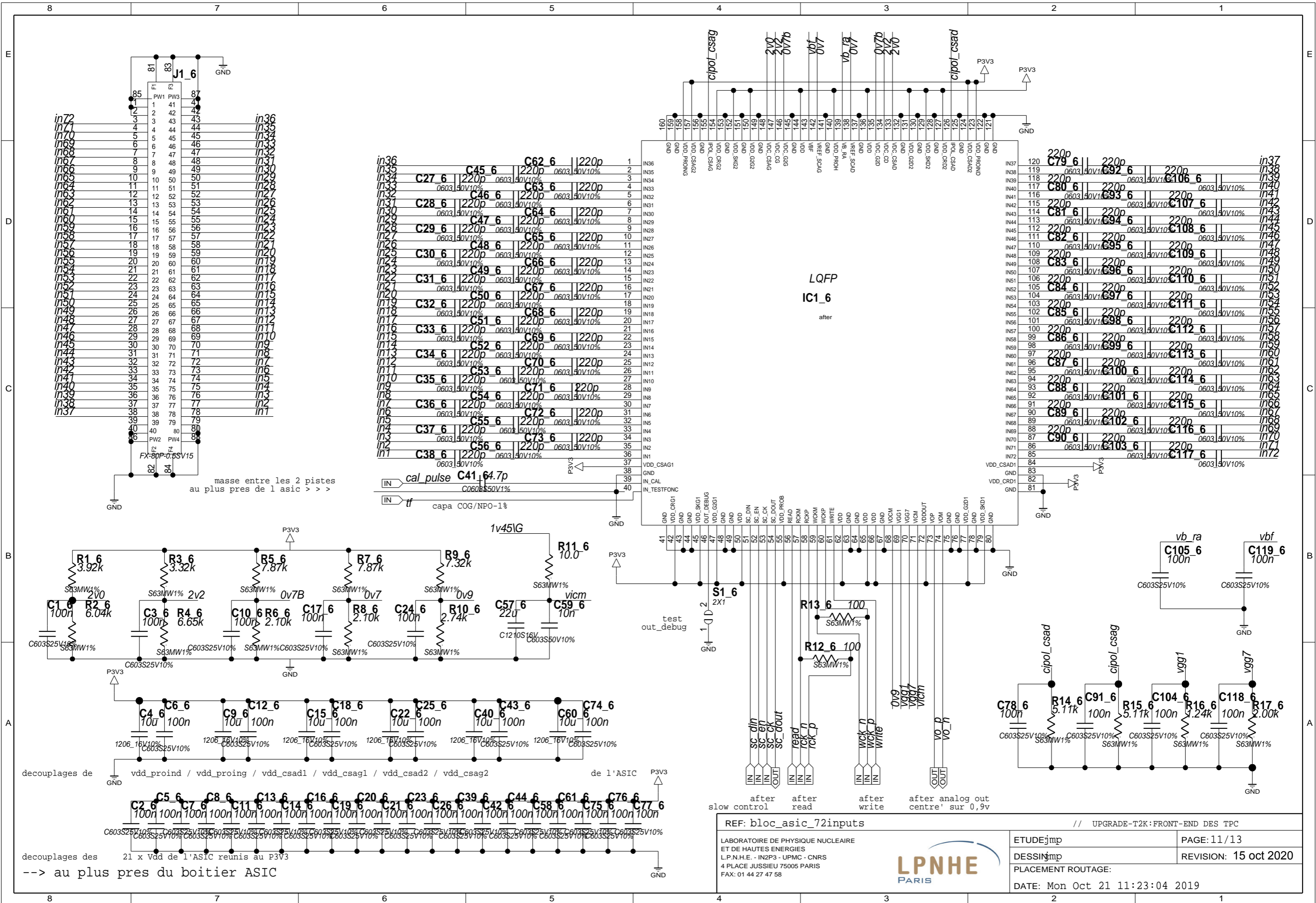
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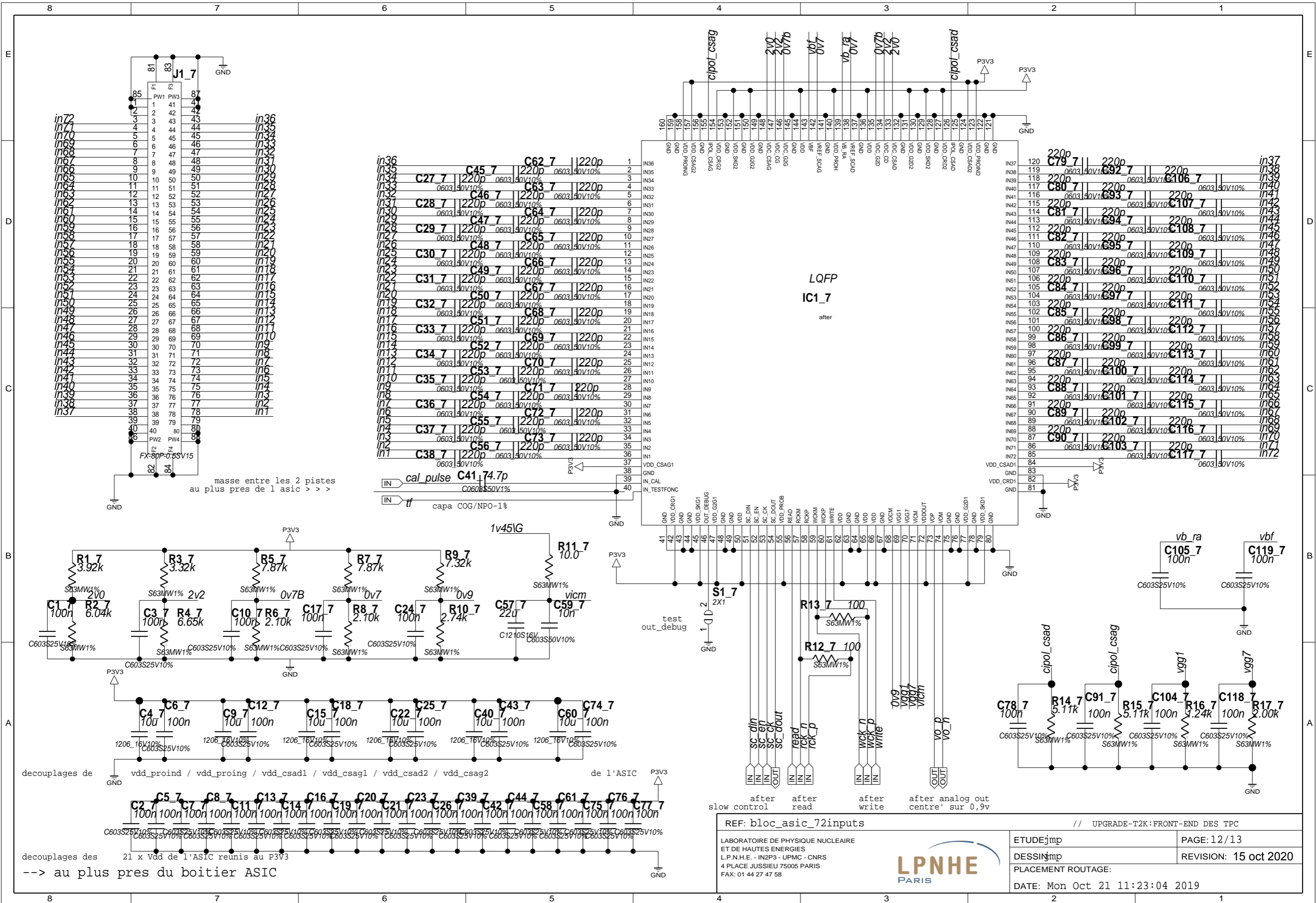




in36	C45 6	220p	0603	50V10%	1	IN36
in35	C27 6	220p	0603	50V10%	2	IN35
in34					3	IN34
in33	C46 6	220p	0603	50V10%	4	IN33
in32	C28 6	220p	0603	50V10%	5	IN32
in31					6	IN31
in30	C47 6	220p	0603	50V10%	7	IN30
in29	C29 6	220p	0603	50V10%	8	IN29
in28					9	IN28
in27	C48 6	220p	0603	50V10%	10	IN27
in26	C30 6	220p	0603	50V10%	11	IN26
in25					12	IN25
in24	C49 6	220p	0603	50V10%	13	IN24
in23	C31 6	220p	0603	50V10%	14	IN23
in22					15	IN22
in21	C50 6	220p	0603	50V10%	16	IN21
in20	C32 6	220p	0603	50V10%	17	IN20
in19					18	IN19
in18	C51 6	220p	0603	50V10%	19	IN18
in17	C33 6	220p	0603	50V10%	20	IN17
in16					21	IN16
in15	C52 6	220p	0603	50V10%	22	IN15
in14	C34 6	220p	0603	50V10%	23	IN14
in13					24	IN13
in12	C53 6	220p	0603	50V10%	25	IN12
in11	C35 6	220p	0603	50V10%	26	IN11
in10					27	IN10
in9	C54 6	220p	0603	50V10%	28	IN9
in8	C36 6	220p	0603	50V10%	29	IN8
in7					30	IN7
in6	C55 6	220p	0603	50V10%	31	IN6
in5	C37 6	220p	0603	50V10%	32	IN5
in4					33	IN4
in3	C56 6	220p	0603	50V10%	34	IN3
in2	C38 6	220p	0603	50V10%	35	IN2
in1					36	IN1

in37	C79 6	220p	0603	50V10%	120	IN37
in38					119	IN38
in39	C80 6	220p	0603	50V10%	117	IN39
in40					116	IN40
in41	C81 6	220p	0603	50V10%	115	IN41
in42					114	IN42
in43	C82 6	220p	0603	50V10%	113	IN43
in44					112	IN44
in45	C83 6	220p	0603	50V10%	111	IN45
in46					110	IN46
in47	C84 6	220p	0603	50V10%	109	IN47
in48					108	IN48
in49	C85 6	220p	0603	50V10%	107	IN49
in50					106	IN50
in51	C86 6	220p	0603	50V10%	105	IN51
in52					104	IN52
in53	C87 6	220p	0603	50V10%	103	IN53
in54					102	IN54
in55	C88 6	220p	0603	50V10%	101	IN55
in56					100	IN56
in57	C89 6	220p	0603	50V10%	99	IN57
in58					98	IN58
in59	C90 6	220p	0603	50V10%	97	IN59
in60					96	IN60
in61	C91 6	220p	0603	50V10%	95	IN61
in62					94	IN62
in63	C92 6	220p	0603	50V10%	93	IN63
in64					92	IN64
in65	C93 6	220p	0603	50V10%	91	IN65
in66					90	IN66
in67	C94 6	220p	0603	50V10%	89	IN67
in68					88	IN68
in69	C95 6	220p	0603	50V10%	87	IN69
in70					86	IN70
in71	C96 6	220p	0603	50V10%	85	IN71
in72					84	IN72

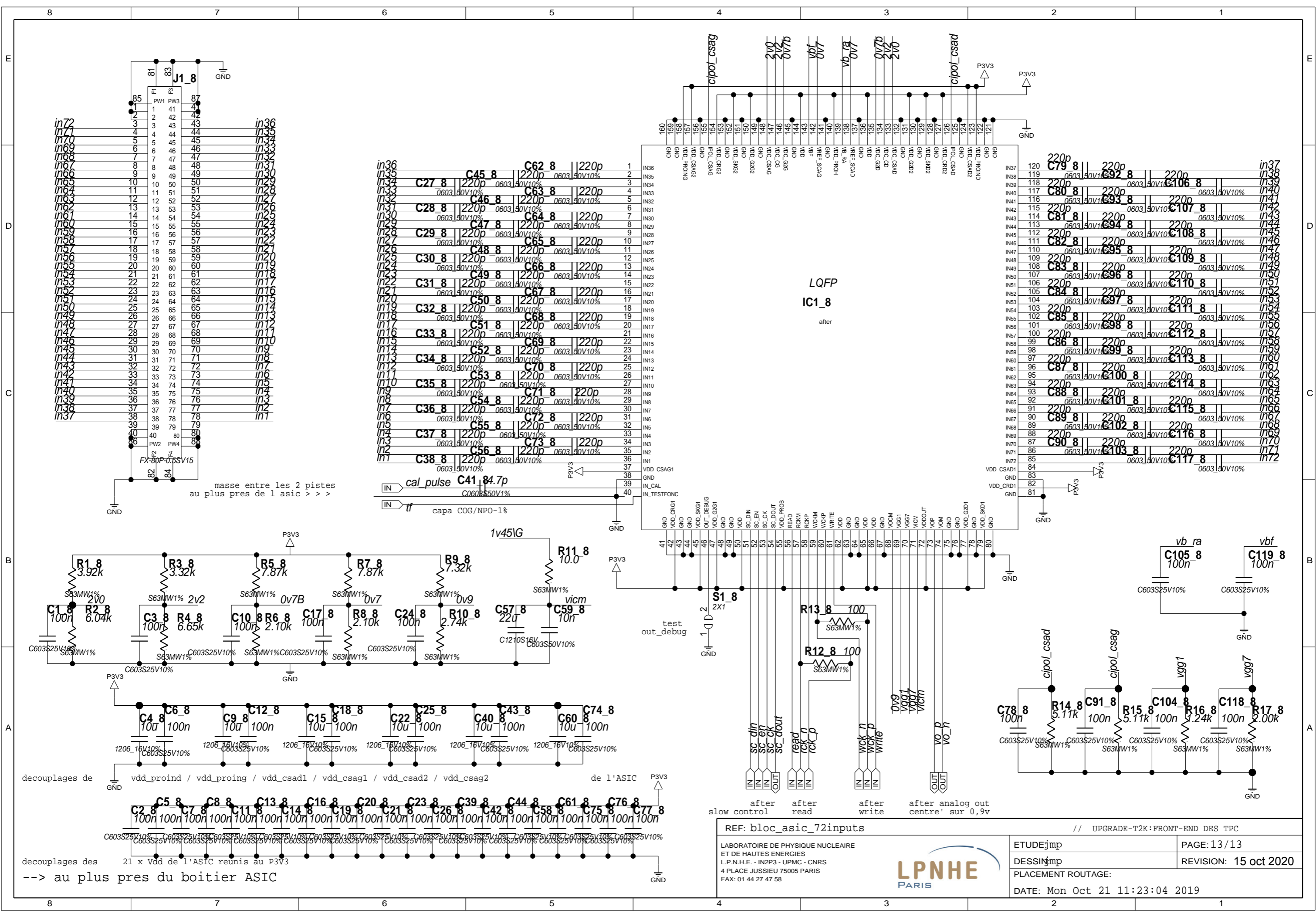




REF: bloc\_asic\_72inputs // UPGRADE-T2K:FRONT-END DES TPC

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in36	C45 8	220p	0603,50V10%	1	IN36
in35	C27 8	220p	0603,50V10%	2	IN35
in34				3	IN34
in33	C46 8	220p	0603,50V10%	4	IN33
in32	C28 8	220p	0603,50V10%	5	IN32
in31	C47 8	220p	0603,50V10%	6	IN31
in30	C29 8	220p	0603,50V10%	7	IN30
in29	C48 8	220p	0603,50V10%	8	IN29
in28	C30 8	220p	0603,50V10%	9	IN28
in27	C49 8	220p	0603,50V10%	10	IN27
in26	C50 8	220p	0603,50V10%	11	IN26
in25	C31 8	220p	0603,50V10%	12	IN25
in24	C51 8	220p	0603,50V10%	13	IN24
in23	C32 8	220p	0603,50V10%	14	IN23
in22	C52 8	220p	0603,50V10%	15	IN22
in21	C33 8	220p	0603,50V10%	16	IN21
in20	C53 8	220p	0603,50V10%	17	IN20
in19	C34 8	220p	0603,50V10%	18	IN19
in18	C54 8	220p	0603,50V10%	19	IN18
in17	C35 8	220p	0603,50V10%	20	IN17
in16	C55 8	220p	0603,50V10%	21	IN16
in15	C36 8	220p	0603,50V10%	22	IN15
in14	C56 8	220p	0603,50V10%	23	IN14
in13	C37 8	220p	0603,50V10%	24	IN13
in12	C57 8	220p	0603,50V10%	25	IN12
in11	C38 8	220p	0603,50V10%	26	IN11
in10				27	IN10
in9				28	IN9
in8				29	IN8
in7				30	IN7
in6				31	IN6
in5				32	IN5
in4				33	IN4
in3				34	IN3
in2				35	IN2
in1				36	IN1

in37	C79 8	220p	0603,50V10%	120	IN37
in38	C92 8	220p	0603,50V10%	119	IN38
in39	C80 8	220p	0603,50V10%	118	IN39
in40	C93 8	220p	0603,50V10%	117	IN40
in41	C81 8	220p	0603,50V10%	116	IN41
in42	C94 8	220p	0603,50V10%	115	IN42
in43	C82 8	220p	0603,50V10%	114	IN43
in44	C95 8	220p	0603,50V10%	113	IN44
in45	C83 8	220p	0603,50V10%	112	IN45
in46	C96 8	220p	0603,50V10%	111	IN46
in47	C84 8	220p	0603,50V10%	110	IN47
in48	C97 8	220p	0603,50V10%	109	IN48
in49	C85 8	220p	0603,50V10%	108	IN49
in50	C98 8	220p	0603,50V10%	107	IN50
in51	C86 8	220p	0603,50V10%	106	IN51
in52	C99 8	220p	0603,50V10%	105	IN52
in53	C87 8	220p	0603,50V10%	104	IN53
in54	C100 8	220p	0603,50V10%	103	IN54
in55	C88 8	220p	0603,50V10%	102	IN55
in56	C101 8	220p	0603,50V10%	101	IN56
in57	C89 8	220p	0603,50V10%	100	IN57
in58	C102 8	220p	0603,50V10%	99	IN58
in59	C90 8	220p	0603,50V10%	98	IN59
in60	C103 8	220p	0603,50V10%	97	IN60
in61				96	IN61
in62				95	IN62
in63				94	IN63
in64				93	IN64
in65				92	IN65
in66				91	IN66
in67				90	IN67
in68				89	IN68
in69				88	IN69
in70				87	IN70
in71				86	IN71
in72				85	IN72

REF: bloc\_asic\_72inputs // UPGRADE-T2K:FRONT-END DES TPC

LABORATOIRE DE PHYSIQUE NUCLEAIRE  
ET DE HAUTES ENERGIES  
L.P.N.H.E. - IN2P3 - UPMC - CNRS  
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ETUDE: jmp  
DESSIN: jmp  
PLACEMENT ROUTAGE:  
DATE: Mon Oct 21 11:23:04 2019

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