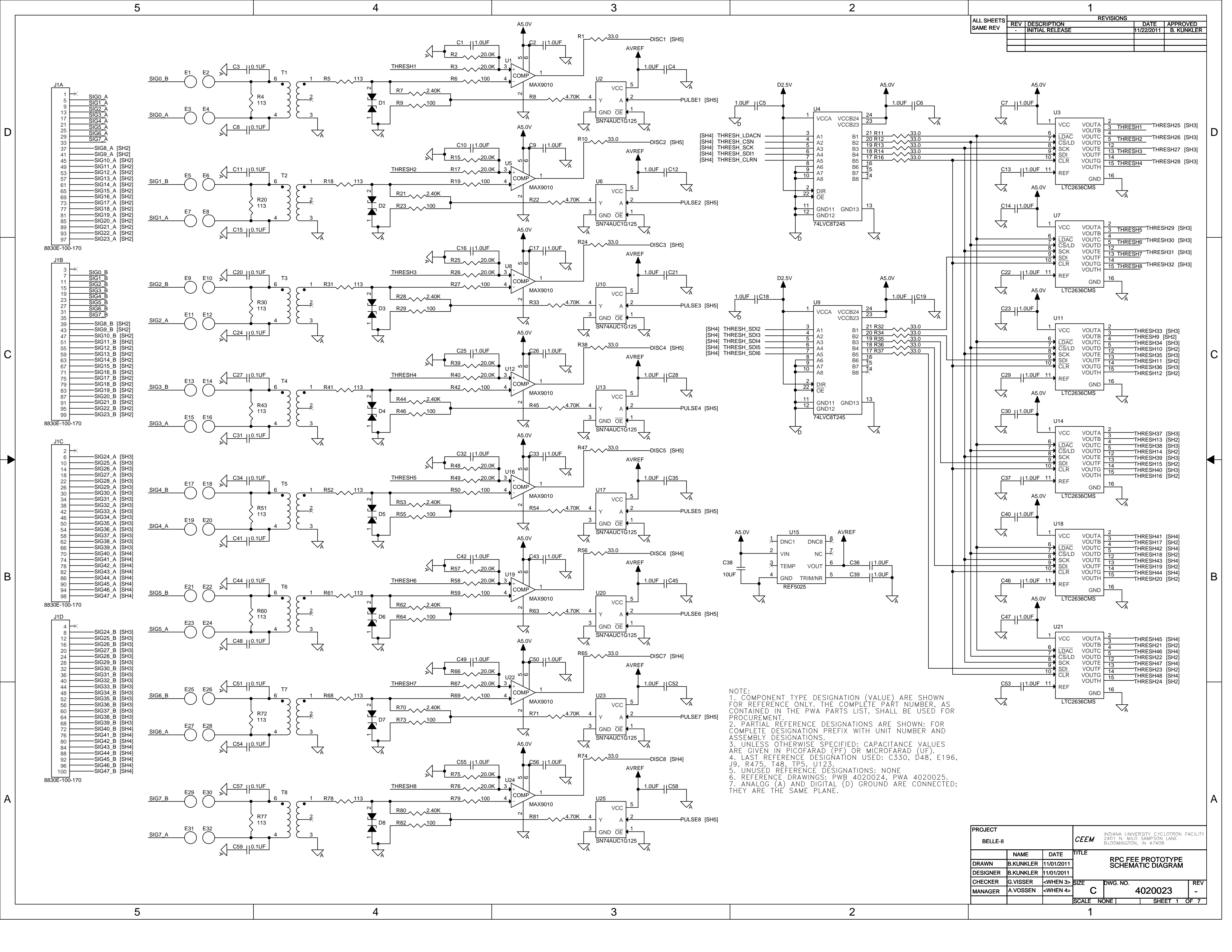


ALL SHEETS		REVISIONS		
REV	DESCRIPTION	DATE	APPROVED	
-	INITIAL RELEASE	11/22/2011	B. KUNKLER	



J1A

1	SIG0_A	[SH2]
5	SIG1_A	[SH2]
9	SIG2_A	[SH2]
13	SIG3_A	[SH2]
17	SIG4_A	[SH2]
21	SIG5_A	[SH2]
25	SIG6_A	[SH2]
29	SIG7_A	[SH2]
33	SIG8_A	[SH2]
37	SIG9_A	[SH2]
41	SIG10_A	[SH2]
45	SIG11_A	[SH2]
49	SIG12_A	[SH2]
53	SIG13_A	[SH2]
57	SIG14_A	[SH2]
61	SIG15_A	[SH2]
65	SIG16_A	[SH2]
69	SIG17_A	[SH2]
73	SIG18_A	[SH2]
77	SIG19_A	[SH2]
81	SIG20_A	[SH2]
85	SIG21_A	[SH2]
89	SIG22_A	[SH2]
93	SIG23_A	[SH2]
97	SIG23_A	[SH2]

J1B

3	SIG0_B	[SH2]
7	SIG1_B	[SH2]
11	SIG2_B	[SH2]
15	SIG3_B	[SH2]
19	SIG4_B	[SH2]
23	SIG5_B	[SH2]
27	SIG6_B	[SH2]
31	SIG7_B	[SH2]
35	SIG8_B	[SH2]
39	SIG9_B	[SH2]
43	SIG10_B	[SH2]
47	SIG11_B	[SH2]
51	SIG12_B	[SH2]
55	SIG13_B	[SH2]
59	SIG14_B	[SH2]
63	SIG15_B	[SH2]
67	SIG16_B	[SH2]
71	SIG17_B	[SH2]
75	SIG18_B	[SH2]
79	SIG19_B	[SH2]
83	SIG20_B	[SH2]
87	SIG21_B	[SH2]
91	SIG22_B	[SH2]
95	SIG23_B	[SH2]

J1C

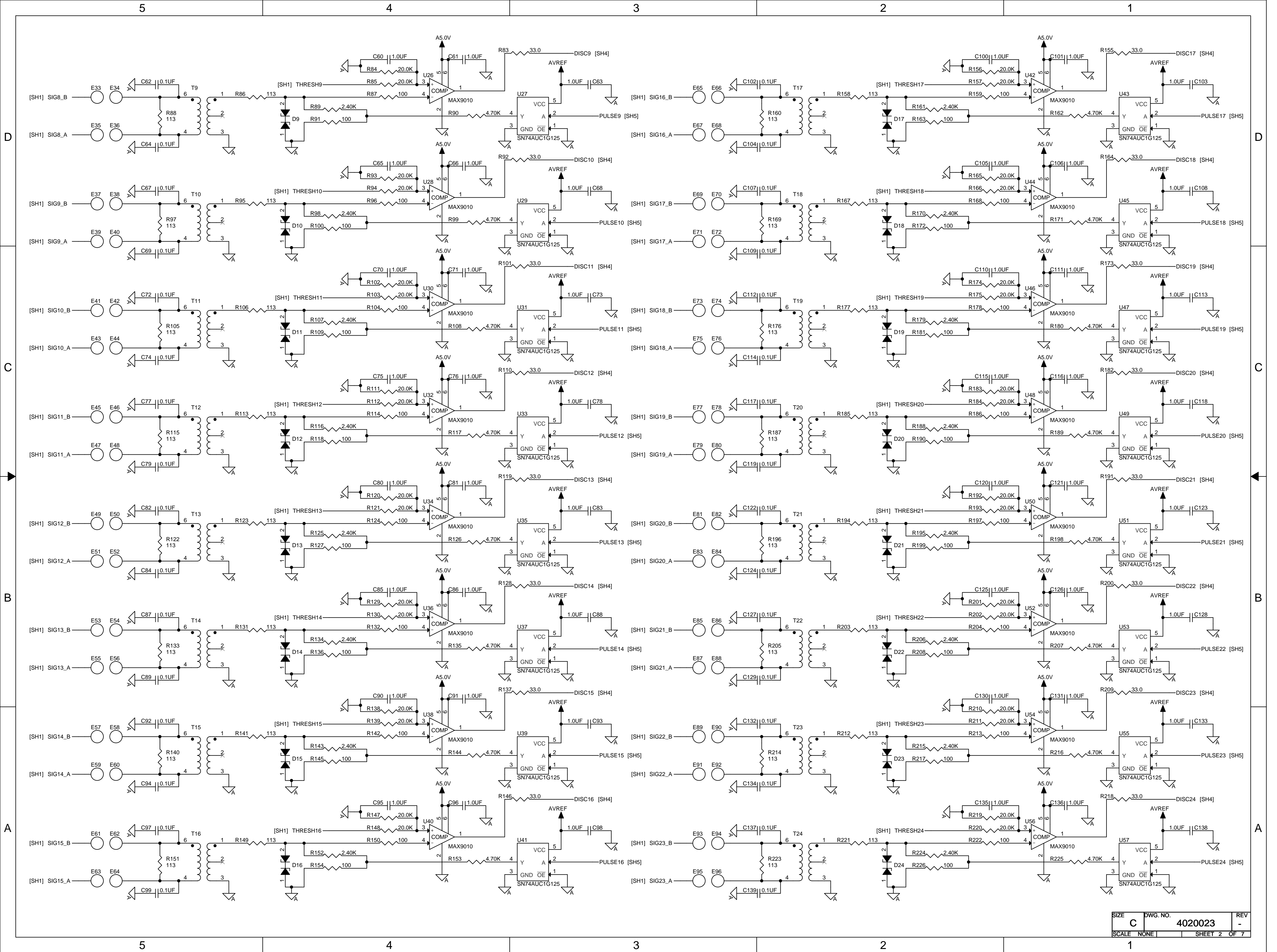
2	SIG24_A	[SH3]
6	SIG25_A	[SH3]
10	SIG26_A	[SH3]
14	SIG27_A	[SH3]
18	SIG28_A	[SH3]
22	SIG29_A	[SH3]
26	SIG30_A	[SH3]
30	SIG31_A	[SH3]
34	SIG32_A	[SH3]
38	SIG33_A	[SH3]
42	SIG34_A	[SH3]
46	SIG35_A	[SH3]
50	SIG36_A	[SH3]
54	SIG37_A	[SH3]
58	SIG38_A	[SH3]
62	SIG39_A	[SH3]
66	SIG40_A	[SH4]
70	SIG41_A	[SH4]
74	SIG42_A	[SH4]
78	SIG43_A	[SH4]
82	SIG44_A	[SH4]
86	SIG45_A	[SH4]
90	SIG46_A	[SH4]
94	SIG47_A	[SH4]

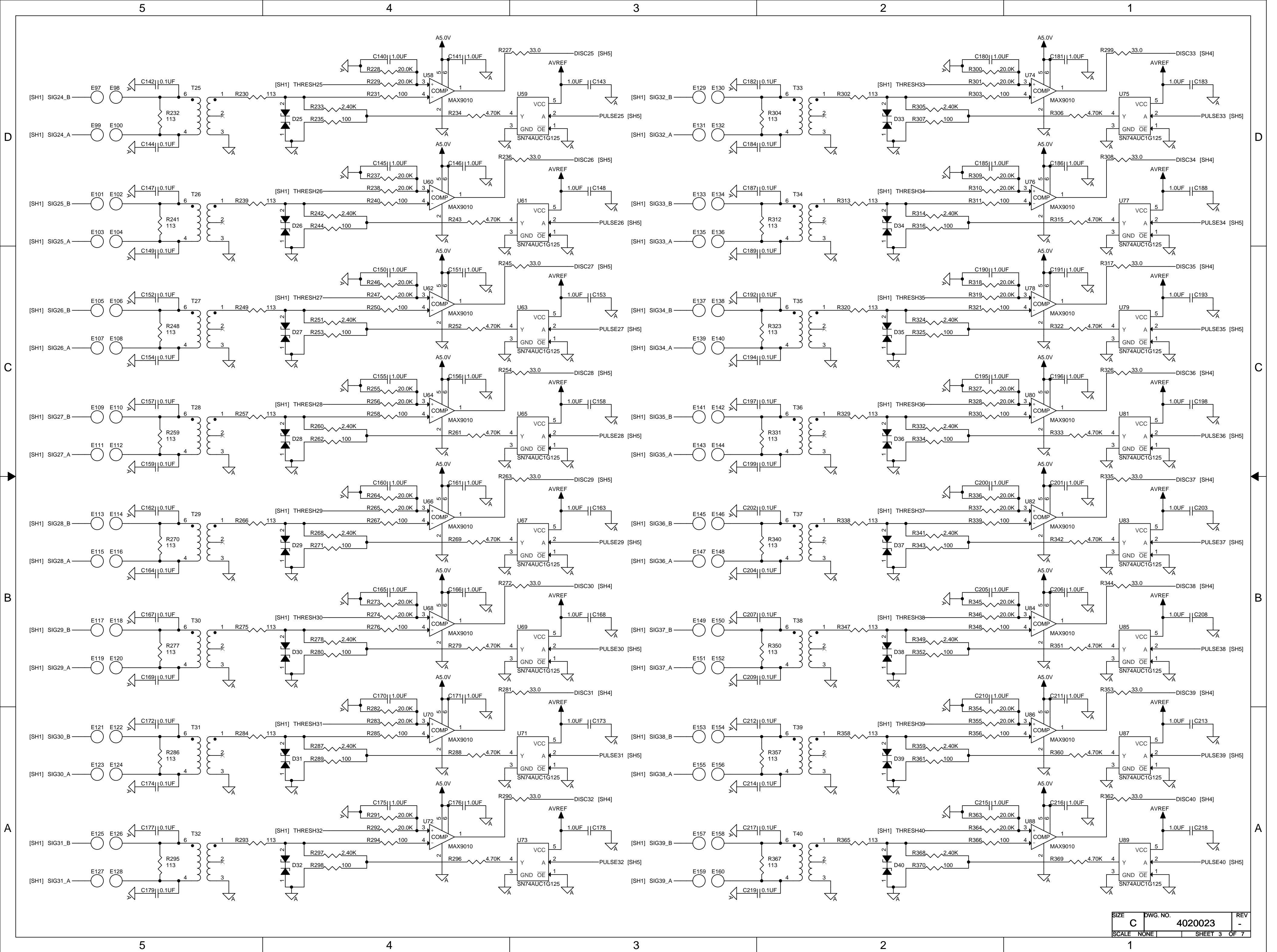
J1D

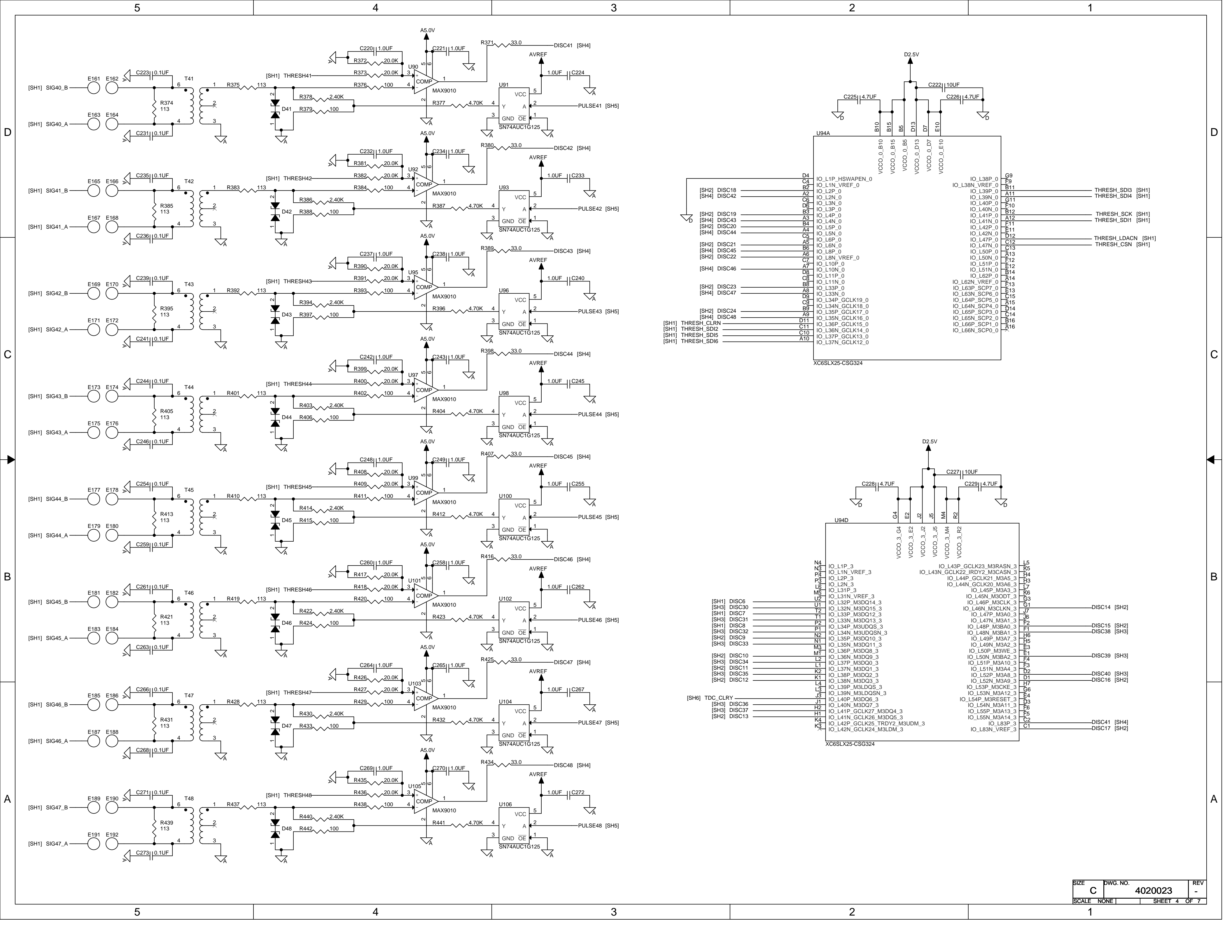
4	SIG24_B	[SH3]
8	SIG25_B	[SH3]
12	SIG26_B	[SH3]
16	SIG27_B	[SH3]
20	SIG28_B	[SH3]
24	SIG29_B	[SH3]
28	SIG30_B	[SH3]
32	SIG31_B	[SH3]
36	SIG32_B	[SH3]
40	SIG33_B	[SH3]
44	SIG34_B	[SH3]
48	SIG35_B	[SH3]
52	SIG36_B	[SH3]
56	SIG37_B	[SH3]
60	SIG38_B	[SH3]
64	SIG39_B	[SH3]
68	SIG40_B	[SH4]
72	SIG41_B	[SH4]
76	SIG42_B	[SH4]
80	SIG43_B	[SH4]
84	SIG44_B	[SH4]
88	SIG45_B	[SH4]
92	SIG46_B	[SH4]
96	SIG47_B	[SH4]
100	SIG47_B	[SH4]

NOTE:
 1. COMPONENT TYPE DESIGNATION (VALUE) ARE SHOWN FOR REFERENCE ONLY. THE COMPLETE PART NUMBER, AS CONTAINED IN THE PWA PARTS LIST, SHALL BE USED FOR PROCUREMENT.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN: FOR COMPLETE DESIGNATION PREFIX WITH UNIT NUMBER AND ASSEMBLY DESIGNATIONS.
 3. UNLESS OTHERWISE SPECIFIED: CAPACITANCE VALUES ARE GIVEN IN PICOFARAD (PF) OR MICROFARAD (UF).
 4. LAST REFERENCE DESIGNATION USED: C330, D48, E196, J9, R475, T48, TP5, U123.
 5. UNUSED REFERENCE DESIGNATIONS: NONE
 6. REFERENCE DRAWINGS: PWB 4020024, PWA 4020025.
 7. ANALOG (A) AND DIGITAL (D) GROUND ARE CONNECTED; THEY ARE THE SAME PLANE.

PROJECT		BELLE-II		CEEM		INDIANA UNIVERSITY CYCLOTRON FACILITY 2401 N. MILLS CAMPSON LANE BLOOMINGTON, IN 47408	
DRAWN		B.KUNKLER		DATE		11/01/2011	
DESIGNER		B.KUNKLER		DATE		11/01/2011	
CHECKER		G.VISSER		DATE		11/01/2011	
MANAGER		A.VOSSEN		DATE		11/01/2011	
TITLE		RPC FEE PROTOTYPE SCHEMATIC DIAGRAM		DWG. NO.		4020023	
SCALE		NONE		SHEET		1 OF 7	

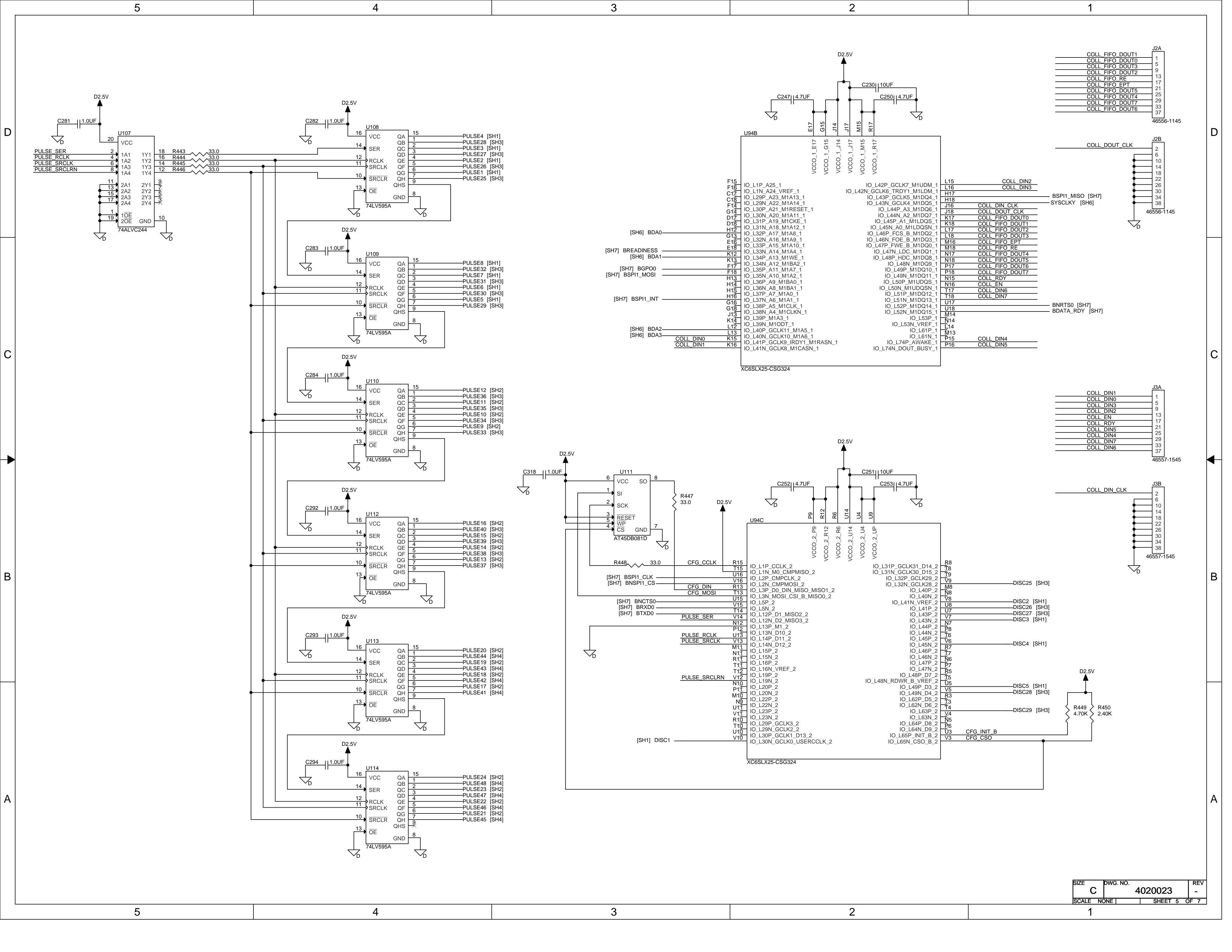






Signal	FPGA Pin	FPGA Pin Name	Component
[SH2] DISC18	D4	IO_L1P_HSWAREN_0	
[SH4] DISC42	C4	IO_L1N_VREF_0	
	B2	IO_L38P_0	G9
	A2	IO_L39P_0	F9
	C6	IO_L2P_0	A11
	D6	IO_L39N_0	G11
	B4	IO_L40P_0	F10
	A4	IO_L40N_0	E10
	C5	IO_L41P_0	B12
	D5	IO_L41N_0	F11
	B6	IO_L42P_0	E11
	A6	IO_L42N_0	D11
	C7	IO_L47P_0	C12
	D7	IO_L47N_0	F12
	B8	IO_L50P_0	E12
	A8	IO_L50N_0	D12
	C8	IO_L51P_0	C13
	D8	IO_L51N_0	F13
	B9	IO_L52P_0	E13
	A9	IO_L52N_0	D13
	C9	IO_L62N_VREF_0	F13
	D9	IO_L63P_SCP7_0	E13
	B9	IO_L63N_SCP6_0	C15
	A9	IO_L64P_SCP5_0	F15
	C9	IO_L64N_SCP4_0	D14
	D9	IO_L65P_SCP3_0	C14
	B9	IO_L65N_SCP2_0	F16
	A9	IO_L66P_SCP1_0	B16
	C10	IO_L66N_SCP0_0	A16
[SH1] THRESH_CLRN	D11	IO_L36P_GCLK15_0	
[SH1] THRESH_SD12	C11	IO_L36N_GCLK14_0	
[SH1] THRESH_SD15	C10	IO_L38N_GCLK13_0	
[SH1] THRESH_SD16	A10	IO_L37P_GCLK13_0	
		IO_L37N_GCLK12_0	

Signal	FPGA Pin	FPGA Pin Name	Component
[SH1] DISC6	N4	IO_L1P_3	L5
[SH3] DISC30	N3	IO_L1N_VREF_3	R5
[SH1] DISC7	P4	IO_L2P_3	R4
[SH3] DISC31	P3	IO_L32P_M3DQ15_3	F3
[SH1] DISC8	L6	IO_L2N_3	L3
[SH3] DISC32	M6	IO_L33N_M3DQ12_3	L7
[SH2] DISC9	U2	IO_L31P_3	K6
[SH3] DISC33	U2	IO_L31N_VREF_3	G3
	U1	IO_L32P_M3DQ14_3	G3
	T2	IO_L46P_M3CLK_3	C1
	T1	IO_L46N_M3CLKN_3	J7
	P2	IO_L47P_M3A0_3	J6
	P1	IO_L47N_M3A1_3	F2
	N2	IO_L48P_M3BA0_3	F1
	N1	IO_L48N_M3BA1_3	H6
	M3	IO_L49P_M3A7_3	H5
	M2	IO_L49N_M3A2_3	H6
	M1	IO_L50P_M3VE_3	E3
	L2	IO_L36N_M3DQ9_3	E1
	L1	IO_L50N_M3BA2_3	F4
	K2	IO_L51P_M3A10_3	F3
	K1	IO_L51N_M3A4_3	D2
	L4	IO_L38P_M3DQ2_3	D1
	L3	IO_L38N_M3DQ3_3	H7
	J3	IO_L52P_M3A8_3	D1
	J2	IO_L52N_M3A9_3	H7
	J1	IO_L39P_M3DQ5_3	G6
	H2	IO_L39N_M3DQ6_3	E4
	H1	IO_L39N_M3DQSN_3	E4
	G3	IO_L40P_M3DQ6_3	D3
	G2	IO_L40N_M3DQ7_3	D3
	F3	IO_L41P_GCLK27_M3DQ4_3	F5
	F2	IO_L41N_GCLK26_M3DQ5_3	F5
	E3	IO_L42P_GCLK25_TRDY2_M3UDM_3	C2
	E2	IO_L42N_GCLK24_M3LDM_3	C2
	D3	IO_L83P_3	
	C2	IO_L83N_VREF_3	



J2A

1	COLL_FIFO_DOUT1
2	COLL_FIFO_DOUT0
3	COLL_FIFO_DOUT3
4	COLL_FIFO_DOUT2
5	COLL_FIFO_RE
6	COLL_FIFO_EPT
7	COLL_FIFO_DOUT5
8	COLL_FIFO_DOUT4
9	COLL_FIFO_DOUT7
10	COLL_FIFO_DOUT6

46556-1145

J2B

2	COLL_DOUT_CLK
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46556-1145

J3A

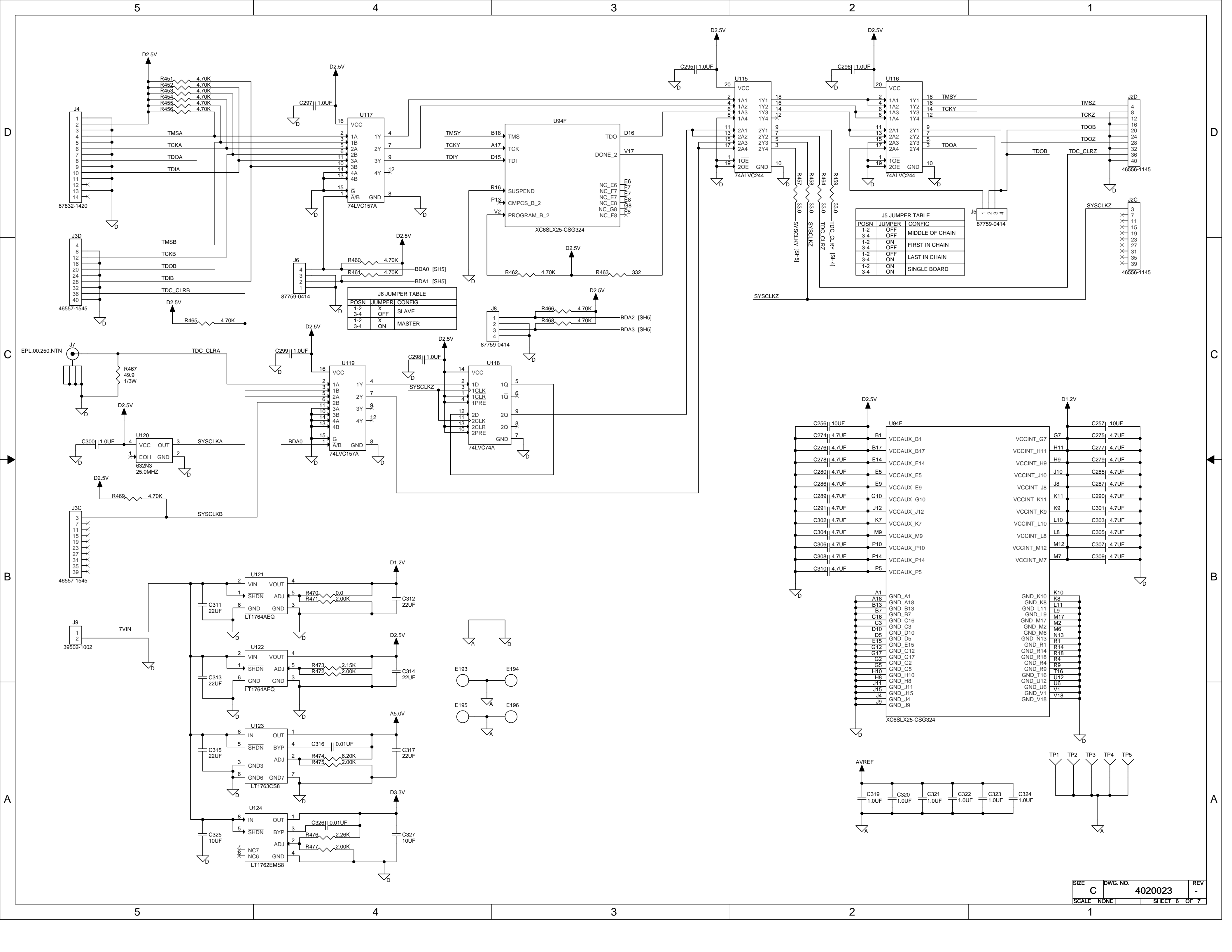
1	COLL_DIN1
2	COLL_DIN0
3	COLL_DIN3
4	COLL_DIN2
5	COLL_EN
6	COLL_RDY
7	COLL_DIN5
8	COLL_DIN4
9	COLL_DIN7
10	COLL_DIN6

46557-1545

J3B

2	COLL_DIN_CLK
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46557-1545



POSN	JUMPER	CONFIG
1-2	X	SLAVE
3-4	OFF	SLAVE
1-2	X	MASTER
3-4	ON	MASTER

POSN	JUMPER	CONFIG
1-2	X	MIDDLE OF CHAIN
3-4	OFF	MIDDLE OF CHAIN
1-2	ON	FIRST IN CHAIN
3-4	OFF	FIRST IN CHAIN
1-2	OFF	LAST IN CHAIN
3-4	ON	LAST IN CHAIN
1-2	ON	SINGLE BOARD
3-4	ON	SINGLE BOARD

POSN	JUMPER	CONFIG
1-2	OFF	MIDDLE OF CHAIN
3-4	OFF	MIDDLE OF CHAIN
1-2	ON	FIRST IN CHAIN
3-4	OFF	FIRST IN CHAIN
1-2	OFF	LAST IN CHAIN
3-4	ON	LAST IN CHAIN
1-2	ON	SINGLE BOARD
3-4	ON	SINGLE BOARD

