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NOTES:

1. "T" DESIGNATES CIRCUIT CARD ASSEMBLY TOP SURFACE.
2. REFERENCE DESIGNATORS USED IN LIEU OF ITEM NUMBERS.
3. PARENTHETICAL INFORMATION IS FOR REFERENCE ONLY.
4. ITEM IDENTIFICATION BALLOONS DENOTE ITEM NUMBER OR ITEM NUMBER - QUANTITY.
5. UNLESS OTHERWISE SPECIFIED, ASSEMBLY SHALL BE IN ACCORDANCE WITH ITEM 3.
6. Z MAX DIMENSIONS, EXCLUDING CONNECTORS, PIN FIELDS, AND MECHANICAL HARDWARE:
 Z TOP SHALL BE .400, EXCEPT ITEM 20 WHICH SHALL NOT EXCEED .700.
 Z BOTTOM SHALL BE .258
 MAXIMUM LEAD PROTRUSION SHALL BE .090
7. APPLY IDENTIFICATION MARKING IN APPROXIMATE LOCATION SHOWN, IN ACCORDANCE WITH ITEM 4, TYPE 2, CLASS II.
8. CAUTION: THIS ASSEMBLY CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES, AND/OR ASSEMBLIES IDENTIFIED AS CLASS 1 IN ACCORDANCE WITH MIL-STD-1686. HANDLE IN ACCORDANCE WITH ITEM 5. ESD SYMBOL APPLIED BY PRINTED WIRING BOARD FABRICATION PROCESS.
9. THIS CIRCUIT CARD ASSEMBLY WILL BE TESTED AT A HIGHER LEVEL.
10. THE BODY OF ITEMS 32, 34, 40, 44 AND 46 SHALL BE SOLDERED TO ITEM 1.
11. ITEM 6 MAY BE UTILIZED ON THIS ASSEMBLY.
12. DIMENSIONING AND TOLERANCING SHALL BE INTERPRETED IN ACCORDANCE WITH ASME Y14.5M-1994. DIMENSIONS AND TOLERANCES ARE IN INCHES.
13. ABBREVIATIONS AND ACRONYMS NOT IN ACCORDANCE WITH ASME Y14.38:
 HIGH FREQUENCY SYSTEM (HFS)
14. ALL E.T.P DESIGNATORS ARE SHOWN FOR REFERENCE ONLY.
15. CONFORMAL COAT ASSEMBLY USING ITEM 7 IN ACCORDANCE WITH ITEM 8. HATCHED AREAS INDICATED SHALL BE FREE OF CONFORMAL COATING, AND SHALL APPROXIMATE SOLDER MASK CLEARANCE ON FAB BOARD.
16. CONFORMAL COAT AREAS WITHIN ITEMS 167 AND 169 PRIOR TO INSTALLATION OF ITEMS 166 AND 168.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	ECO-0319538	2011-05-21	K.H.

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

PARTS LIST CONTINUED ON THE FOLLOWING SHEET

QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR
2	34	351-6370-230	RF/MICROWAVE ATTENUATOR			10	U43,44
2	33	351-6358-250	RF AMP, 1000MHz				U29,30
1	32	351-5576-020	ANALOG IC, A/D CONVERTER			10	U16
2	31	351-5551-010	ANALOG IC, A/D CONVERTER				U20,21
1	30	351-4122-510	RF/MICROWAVE AMPLIFIER				U36
1	29	351-3268-070	IC, INTERFACE, LVDS RECEIVER				U22
5	28	351-3152-430	LOGIC IC, BUS DRIVER/TRANSCEIVER				U31,35,40,46,49
2	27	351-3152-380	LOGIC IC, GATE				U28,48
1	26	351-3111-110	MICROPROCESSOR IC, DSP				U15
1	25	351-2987-020	ANALOG IC, POWER MANAGEMENT				U7
3	24	351-2876-030	ANALOG IC, D/A CONVERTER				U17-19
10	23	351-1392-180	ANALOG IC, OPERATIONAL AMPLIFIER				U25-27,47,57-62
2	22	278-0883-010	TRANSFORMER, RF				T2,3
2	21	278-0491-120	TRANSFORMER, RF				T5,6
1	20	277-1045-010	OSCILLATOR, CRYSTAL			6	G2
1	19	277-0828-020	RF/MICROWAVE COUPLER				U42
3	18	262-7001-190	VISIBLE LED				DS1,4,6
3	17	262-7001-060	DIODE, LIGHT EMITTING				DS2,3,5
2	16	240-3030-080	INDUCTOR, GENERAL PURPOSE, .307UH				L34,35
4	15	240-3030-070	INDUCTOR, GENERAL PURPOSE, .246UH				L30-33
1	14	240-3030-040	INDUCTOR, GENERAL PURPOSE, .169UH				L28
1	13	240-2933-100	INDUCTOR, 5.6uH				L17
6	12	240-2933-070	INDUCTOR, 3.3uH				L3,4,10,13,16,21
1	11	240-2931-200	COIL, 270nH				L23
9	10	184-6344-240	CAPACITOR, 33uF				C53,54,81,83,118,119,312,330,331
7	9	184-0509-070	CAPACITOR, FIXED, 150UF, 16V				C1-3,5,15,17,30
REF	8	580-5458-001	CONFORMAL COATING, ACRYLIC-BASED, APPLIC			15	
AR	7	821-0650-020	INSULATING COMPOUND, ACRYLIC			15	
REF	6	580-6520-001	STANDARD ASSY PRACTICES			11	
REF	5	489-0004-001	PROCEDURE, ESD			8	
REF	4	580-1497-001	PROCESS, MARKING IDENT			7	
REF	3	523-0778764	RC WORKMANSHIP STD MANUAL			5	
REF	2	828-7037-002	SCHEMATIC DIAGRAM				
1	1	826-0004-743	PRINTED WIRING BOARD				

THE TECHNICAL DATA IN THIS DOCUMENT (OR FILE) IS CONTROLLED FOR EXPORT UNDER THE EXPORT ADMINISTRATION REGULATIONS (EAR), 15 CFR PARTS 730-774. VIOLATIONS OF THESE EXPORT LAWS MAY BE SUBJECT TO FINES AND PENALTIES UNDER THE EXPORT ADMINISTRATION ACT.

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CONTRACT NO -----		ROCKWELL COLLINS	
PREP R.NUTTING	2011-05-21		
CHK S.SOLYNTJES	2011-05-21		
983-9400-00X	HFS-2200	APVD K.HAMBY	2011-05-21
NEXT ASSY	USED ON	ALL SHEETS ARE THE SAME REVISION STATUS	
APPLICATION		THIRD ANGLE PROJECTION	
SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
SCALE NONE	SHEET 1 OF 19		

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PARTS LIST CONTINUED ON THE FOLLOWING SHEET

QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR
2	76	705-3551-680	RESISTOR, 4.99 OHMS				R425, 426
6	75	705-3540-180	RESISTOR, 121 OHMS				R286-288, 412-414
1	74	705-3539-810	RESISTOR, 49.9 OHMS				R485
3	73	705-3539-790	RESISTOR, 47.5 OHMS				R421-423
6	72	705-3538-270	RESISTOR, 30.1K OHMS				R523-528
2	71	705-3537-470	RESISTOR, 3.24K OHMS				R267, 475
2	70	705-3535-070	RESISTOR, 130K OHMS				R15, 16
9	69	705-3216-390	RESISTOR, 22.1K OHMS				R501, 502, 513-519
5	68	705-3215-260	RESISTOR, 100K OHMS				R150, 477, 629-631
37	67	705-3215-010	RESISTOR, 10K OHMS				R10, 12, 31-34, 36, 38, 124, 450, 451, 453-474, 536, 539-541
17	66	705-3214-510	RESISTOR, 1000 OHMS				R3, 7, 17, 49, 52, 210, 211, 265, 427, 428, 555, 563, 564, 596-599
3	65	705-3214-010	RESISTOR, 10 OHMS				R410, 411, 601
1	64	705-2437-480	RESISTOR, 100 OHMS				R632
1	63	705-2437-310	RESISTOR, 56.2 OHMS				R8
1	62	705-2437-300	RESISTOR, 51.1 OHMS				R634
2	61	705-2437-180	RESISTOR, 23.7 OHMS				R1, 2
1	60	668-0624-010	INDUCTOR, GENERAL PURPOSE, 10UH				L20
1	59	668-0576-440	INDUCTOR, 0.33UH				L22
1	58	668-0572-030	INDUCTOR, 2.2uH				L18
4	57	668-0471-110	COIL, 47uH				L24-27
1	56	372-0445-030	CONN, PCB, RECEPTACLE, 14 CONT				P4
1	55	372-0445-020	CONN, PCB, LOW PROFILE STRIP, 10 CONT				P5
4	54	353-8135-020	SEMICON DVC, DIODE				CR1-4
4	53	352-9113-010	TRANSISTOR, BIP GENL PURPOSE SMALL SIG				Q3-6
2	52	352-7989-010	TRANSISTOR, FET GEN. PURPOSE SMALL SIG				Q7, 8
2	51	352-1870-250	TRANSISTOR, FET GENERAL PURPOSE PWR				Q1, 2
1	50	351-9603-050	INTERFACE IC, LINE DRIVER OR REC				U23
2	49	351-9446-010	ANALOG IC, MULTIPLEXER OR SWITCH				U33, 34
1	48	351-9204-010	TELECOM/DATACOM IC, OTHER				U14
1	47	351-9189-010	MEMORY IC, PRGM ROM, FLASH 3V PROM				U45
1	46	351-6974-020	ANALOG IC, D/A CONVERTER			10	U13
1	45	351-6956-140	PROGRAMMABLE LOGIC IC, FPGA				U32
2	44	351-6920-020	ANALOG IC, SWITCHING REGULATOR			10	U3, 4
1	43	351-6897-030	FIXED POSITIVE SINGLE OUTPUT LDO RGLTR				U6
1	42	351-6897-020	FIXED POSITIVE SINGLE OUTPUT LDO RGLTR				U2
1	41	351-6897-010	ADJ POSITIVE SINGLE OUTPUT LDO RGLTR				U1
1	40	351-6846-040	LOGIC IC, CLOCK DRIVER			10	U12
1	39	351-6794-010	RF/MICROWAVE DETECTOR				U37
1	38	351-6776-060	ANALOG IC, POWER MANAGEMENT				U9
1	37	351-6776-030	ANALOG IC, POWER MANAGEMENT				U11
1	36	351-6776-020	ANALOG IC, POWER MANAGEMENT				U10
2	35	351-6776-010	ANALOG IC, POWER MANAGEMENT				U5, 8

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SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
SCALE NONE	SHEET 2		

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PARTS LIST CONTINUED ON THE FOLLOWING SHEET

QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR
		PARTS LIST					
1	106	705-3555-850	RESISTOR, 75K OHMS				R397
3	105	705-3555-800	RESISTOR, 66.5K OHMS				R498-500
27	104	705-3555-680	RESISTOR, 49.9K OHMS				R271-274, 324, 354, 355, 488-492, 494, 496, 497, 571-575, 584, 587-592
3	103	705-3555-660	RESISTOR, 47.5K OHMS				R520-522
3	102	705-3555-410	RESISTOR, 26.1K OHMS				R360, 377, 378
1	101	705-3555-390	RESISTOR, 24.9K OHMS				R568
1	100	705-3554-790	RESISTOR, 6490 OHMS				R529
2	99	705-3554-720	RESISTOR, 5490 OHMS				R620, 621
4	98	705-3554-690	RESISTOR, 5110 OHMS				R280, 281, 330, 331
117	97	705-3554-660	RESISTOR, 4750 OHMS				R25, 39, 40, 54, 96-104, 106, 108-122, 143, 146, 147, 171-186, 227-236, 238-248, 259-261, 277, 302-307, 338, 339, 342, 343, 345-347, 349-353, 356-359, 361, 362, 394-396, 419, 439, 511, 512, 537, 538, 544, 546, 593-595, 602-604, 606-608
2	96	705-3554-650	RESISTOR, 4640 OHMS				R18, 20
1	95	705-3554-610	RESISTOR, 4220 OHMS				R105
1	94	705-3554-560	RESISTOR, 3740 OHMS				R28
6	93	705-3554-470	RESISTOR, 3010 OHMS				R559, 560, 565, 566, 569, 570
10	92	705-3554-390	RESISTOR, 2490 OHMS				R340, 341, 398-401, 406-409
10	91	705-3554-240	RESISTOR, 1740 OHMS				R13, 14, 268, 269, 332-335, 585, 586
4	90	705-3554-170	RESISTOR, 1470 OHMS				R484, 556-558
1	89	705-3554-010	RESISTOR, 1000 OHMS				R452
4	88	705-3553-660	RESISTOR, 475 OHMS				R480-483
2	87	705-3553-470	RESISTOR, 301 OHMS				R290, 291
4	86	705-3553-210	RESISTOR, 162 OHMS				R4, 5, 266, 476
6	85	705-3553-180	RESISTOR, 150 OHMS				R478, 479, 503-506
20	84	705-3553-010	RESISTOR, 100 OHMS				R107, 275, 295, 325-329, 416-418, 446-448, 533, 534, 549, 554, 701, 702
1	83	705-3552-850	RESISTOR, 75 OHMS				R449
1	82	705-3552-690	RESISTOR, 51.1 OHMS				R635
4	81	705-3552-680	RESISTOR, 49.9 OHMS				R336, 337, 627, 628
3	80	705-3552-550	RESISTOR, 36.5 OHMS				R443-445
124	79	705-3552-430	RESISTOR, 27.4 OHMS				R59, 92, 128-142, 151-170, 187-209, 212-220, 226, 237, 294, 308-323, 363, 370-376, 379-388, 390, 493, 495, 509, 510, 547, 550-552, 561, 562, 567, 576, 577, 580-583
1	78	705-3552-240	RESISTOR, 17.4 OHMS				R289
55	77	705-3551-970	RESISTOR, 0 OHMS				R42-47, 58, 60-63, 66, 88-90, 123, 125-127, 262-264, 270, 278, 283, 344, 348, 364-367, 369, 429, 431-435, 437, 438, 440-442, 531, 532, 542, 543, 548, 609-611, 623-626

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SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
SCALE NONE	SHEET 3		

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PARTS LIST CONTINUED ON THE FOLLOWING SHEET

QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR
2	147	913-3069-050	CAPACITOR 0.33uF				C265, 266
5	146	913-3067-090	CAPACITOR, 0.033uF				C31, 32, 283, 286, 369
2	145	913-3067-070	CAPACITOR, 0.022uF				C24, 25
6	144	913-3066-180	CAPACITOR, 0.01uF				C13, 14, 122, 123, 153, 231
2	143	913-3066-110	CAPACITOR, 1800pF				C95, 98
20	142	913-3066-080	CAPACITOR, 1000pF				C4, 12, 47-49, 76, 84, 87, 88, 112, 151, 152, 242, 245, 246, 267-271
6	141	913-3066-070	CAPACITOR, 820pF				C247-252
4	140	913-3066-060	CAPACITOR, 680pF				C236, 304-306
1	139	913-3066-040	CAPACITOR, 470pF				C233
2	138	913-3066-010	CAPACITOR, 270pF				C114, 232
3	137	913-3064-060	CAPACITOR, 1000pF				C170-172
3	136	913-3062-040	CAPACITOR, 5600pF				C292, 293, 295
2	135	913-3062-010	CAPACITOR, 3300pF				C132, 273
1	134	913-3061-040	CAPACITOR, 2200pF				C173
7	133	913-3059-270	CAPACITOR, 150pF				C158-164
1	132	913-3059-260	CAPACITOR, 120pF				C156
1	131	913-3059-240	CAPACITOR, 82pF				C154
3	130	913-3059-220	CAPACITOR, 56pF				C148-150
1	129	913-3059-160	CAPACITOR, 18pF				C155
10	128	913-3059-120	CAPACITOR, 8.2pF				C29, 145-147, 324-329
5	127	913-3056-160	CAPACITOR, 3.3uF				C79, 92, 93, 166, 168
4	126	913-0866-100	CAPACITOR, 68pF				C27, 140, 238, 240
1	125	913-0865-650	CAPACITOR, 560pF				C141
1	124	913-0865-640	CAPACITOR, 470pF				C138
1	123	913-0865-520	CAPACITOR, 0.015uF				C387
1	122	913-0865-490	CAPACITOR, 8200pF				C144
1	121	913-0865-430	CAPACITOR, 2700pF				C134
2	120	913-0865-390	CAPACITOR, 1200pF				C142, 143
1	119	859-4830-080	CONNECTOR, ELECTRICAL				P2
1	118	859-4830-030	CONNECTOR, ELECTRICAL				P1
2	117	857-0001-030	CONNECTOR, ELECTRICAL				J3, 4
2	116	849-0034-080	INDUCTOR, 15uH				L1, 2
1	115	849-0028-070	INDUCTOR, 0.33uH				L19
1	114	849-0008-020	COIL, 4.7uH				L29
2	113	844-0124-370	SEMICONDUCTOR DEVICE, DIODE				VR1, 2
1	112	835-0353-030	IC, LINEAR				U41
1	111	835-0281-010	IC, LINEAR				U24
2	110	835-0094-010	IC, LINEAR				U38, 39
1	109	834-5019-140	CAPACITOR, FIXED, 0.0047uF				C28
2	108	833-6083-360	RESISTOR, 0.012 OHM				R6, 19
64	107	705-3556-930	RESISTOR, 909K OHMS				R21-24, 26, 27, 41, 53, 64, 65, 67-87, 91, 93-95, 144, 145, 148, 149, 221-225, 249-258, 296-301, 389, 391-393
QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR

PARTS LIST

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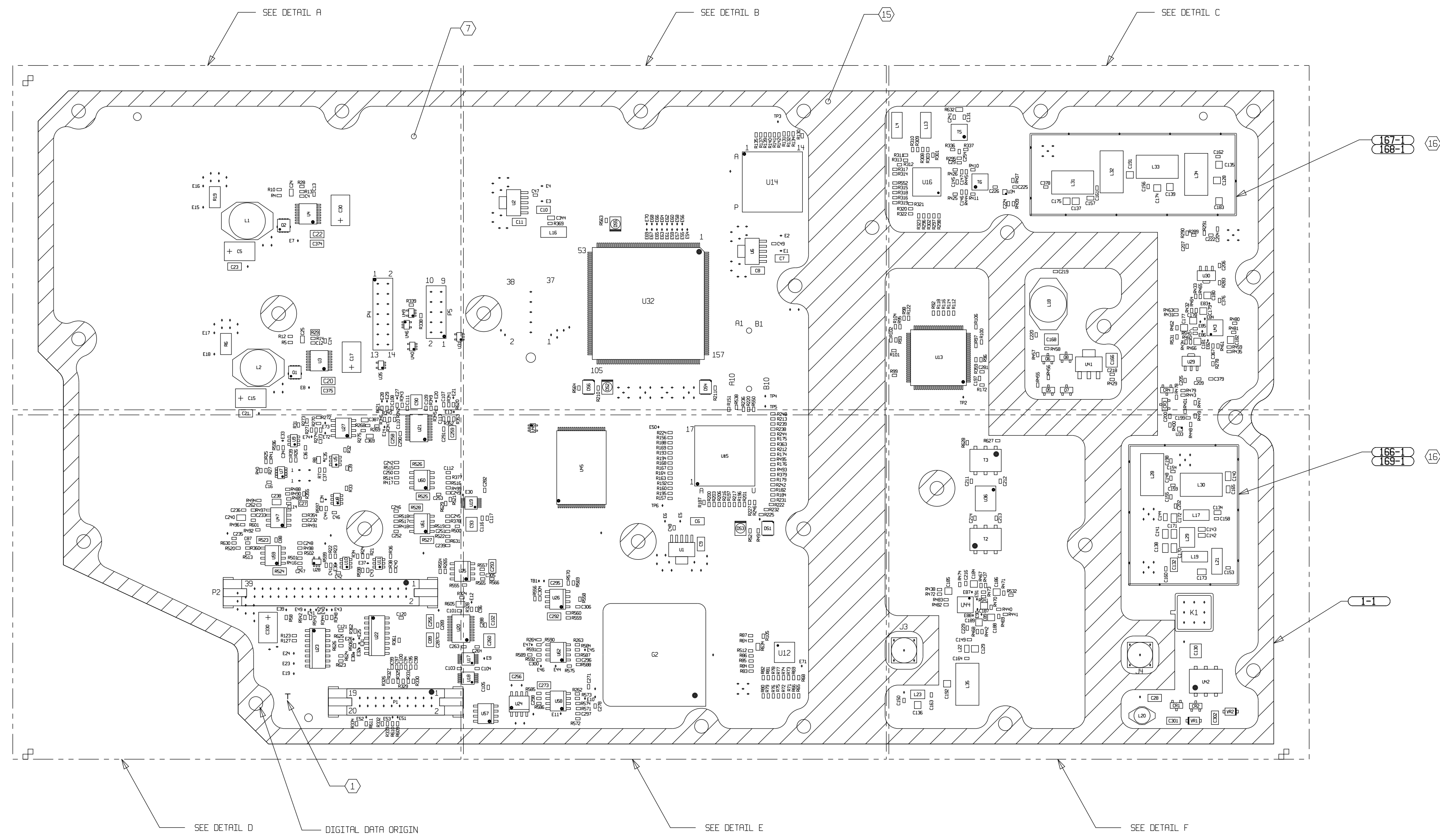
1	171	COM214-0094-020	ELECTROMECHANICAL RELAY				K1
2	170	COM202-0053-720	RESISTOR, 5490 OHMS				R29, 605
1	169	983-9396-007	FENCE, LOW PASS SHIELD			16	
1	168	983-9396-006	COVER, HI PASS SHIELD			16	
1	167	983-9396-005	FENCE, HI PASS SHIELD			16	
1	166	983-9396-004	COVER, LOW PASS SHIELD			16	
13	165	914-0678-600	CAPACITOR, 100pF				C176-182, 184-189
2	164	914-0678-580	CAPACITOR, 82pF				C137, 183
2	163	914-0678-510	CAPACITOR, 39pF				C191, 192
1	162	914-0678-490	CAPACITOR, 33pF				C139
1	161	914-0678-480	CAPACITOR, 30pF				C136
1	160	914-0678-470	CAPACITOR, 27pF				C135
1	159	914-0678-410	CAPACITOR, 15pF				C174
1	158	914-0678-370	CAPACITOR, 10pF				C175
2	157	914-0678-350	CAPACITOR, 8.2pF				C128, 129
1	156	914-0677-400	CAPACITOR, 22pF				C157
3	155	913-3667-960	CAPACITOR, FIXED, 1uF, 50V				C90, 260, 261
6	154	913-3348-080	CAPACITOR, FIXED, 1uF, 16V				C19, 26, 124, 125, 343, 344
1	153	913-3239-200	CAPACITOR, FIXED, 6.8PF, 200V				C165
17	152	913-3220-010	CAPACITOR, FIXED, 10uF, 16V				C6-11, 20-23, 89, 102, 255-259
1	151	913-3092-020	CAPACITOR, FIXED, 0.1uF, 200V				C130
194	150	913-3087-350	CAPACITOR, FIXED 0.1uF, 16V				C16, 18, 33, 34, 36, 37, 39-44, 46, 50-52, 55-75, 77, 78, 80, 82, 85, 86, 91, 94, 96, 97, 99-101, 103-111, 113, 115-117, 120, 121, 126, 127, 131, 193-216, 218-230, 235, 239, 241, 243, 244, 253, 254, 262-264, 274-282, 287-291, 294, 296-300, 303, 307-311, 313-323, 332-342, 345-368, 370-373, 376, 378, 379
1	149	913-3087-310	CAPACITOR, FIXED 0.047uF, 16V				C169
4	148	913-3072-040	CAPACITOR, 0.1uF				C301, 302, 374, 375
QTY	ITEM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	NOTES	REF DESIGNATOR

PARTS LIST

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SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
SCALE NONE	SHEET 5		

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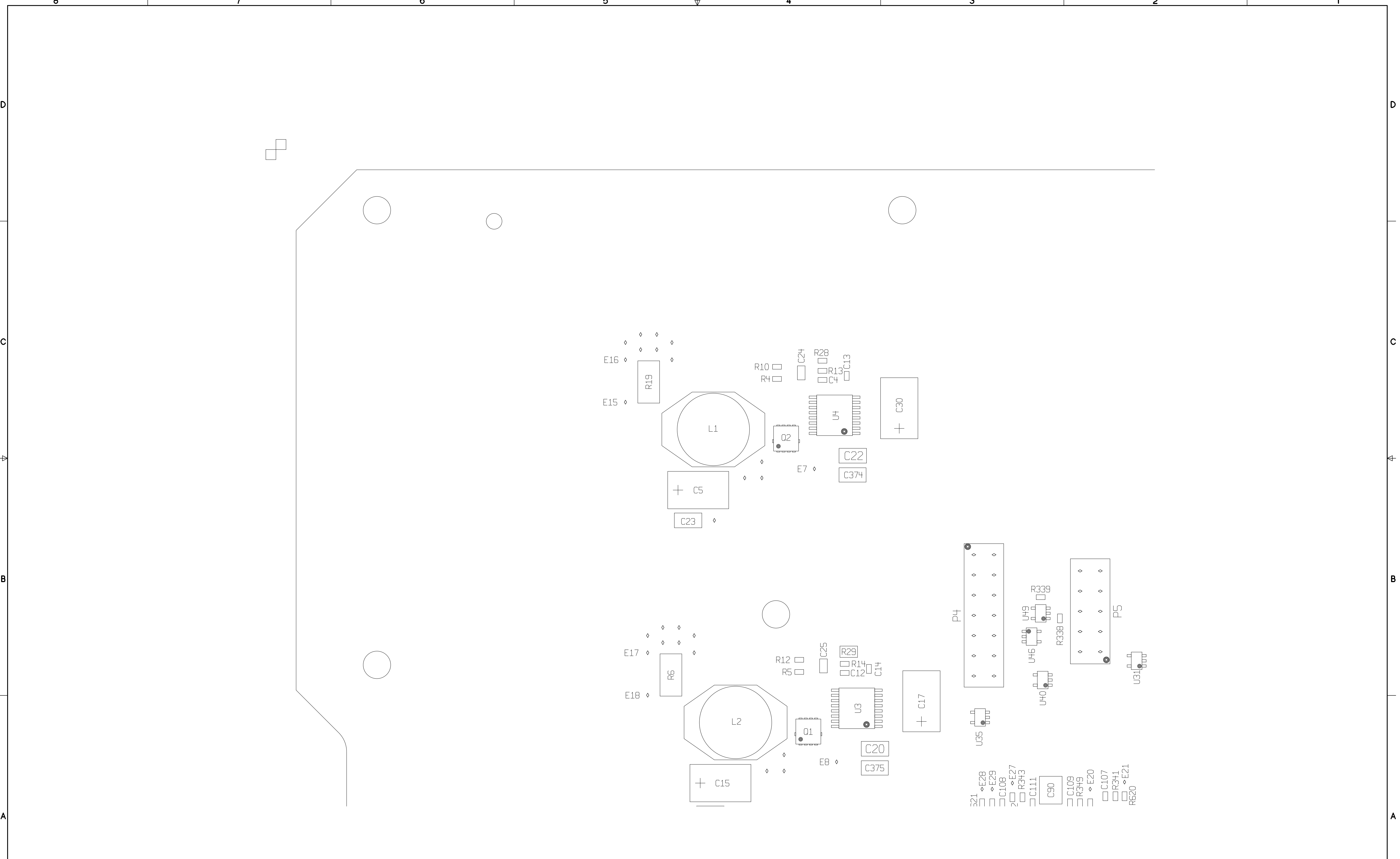


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COMPONENTS TOP

SIZE D	CAGEC OEFD0	DWG NO 828-2037-002	REV A
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DETAIL A

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SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
SCALE NONE		SHEET 7	

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8 7 6 5 4 3 2 1

D

C

B

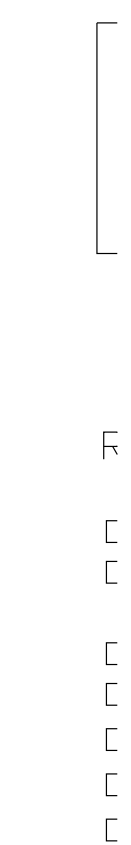
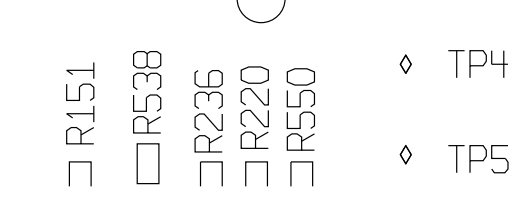
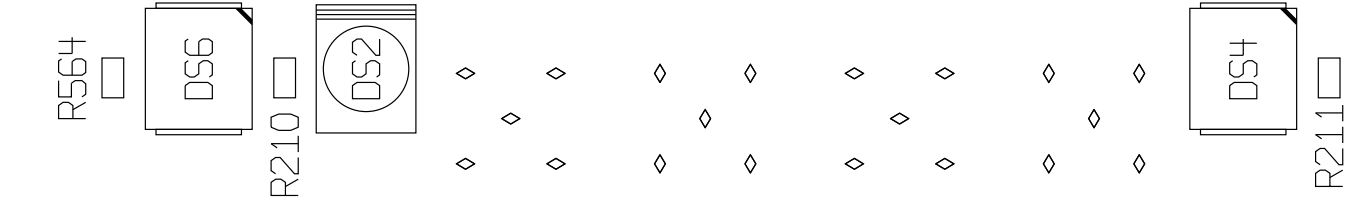
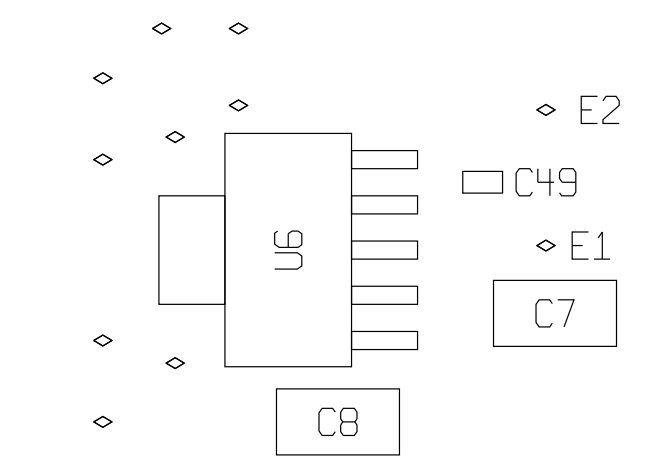
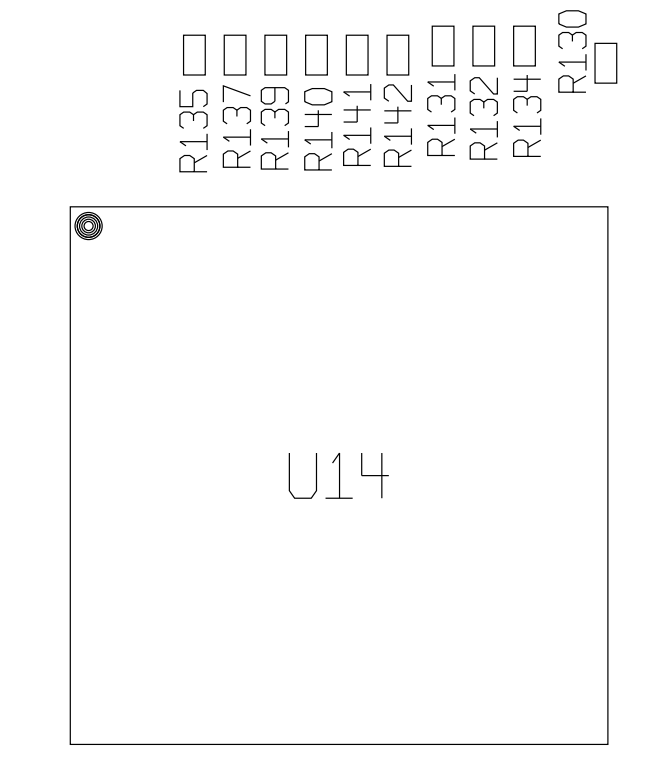
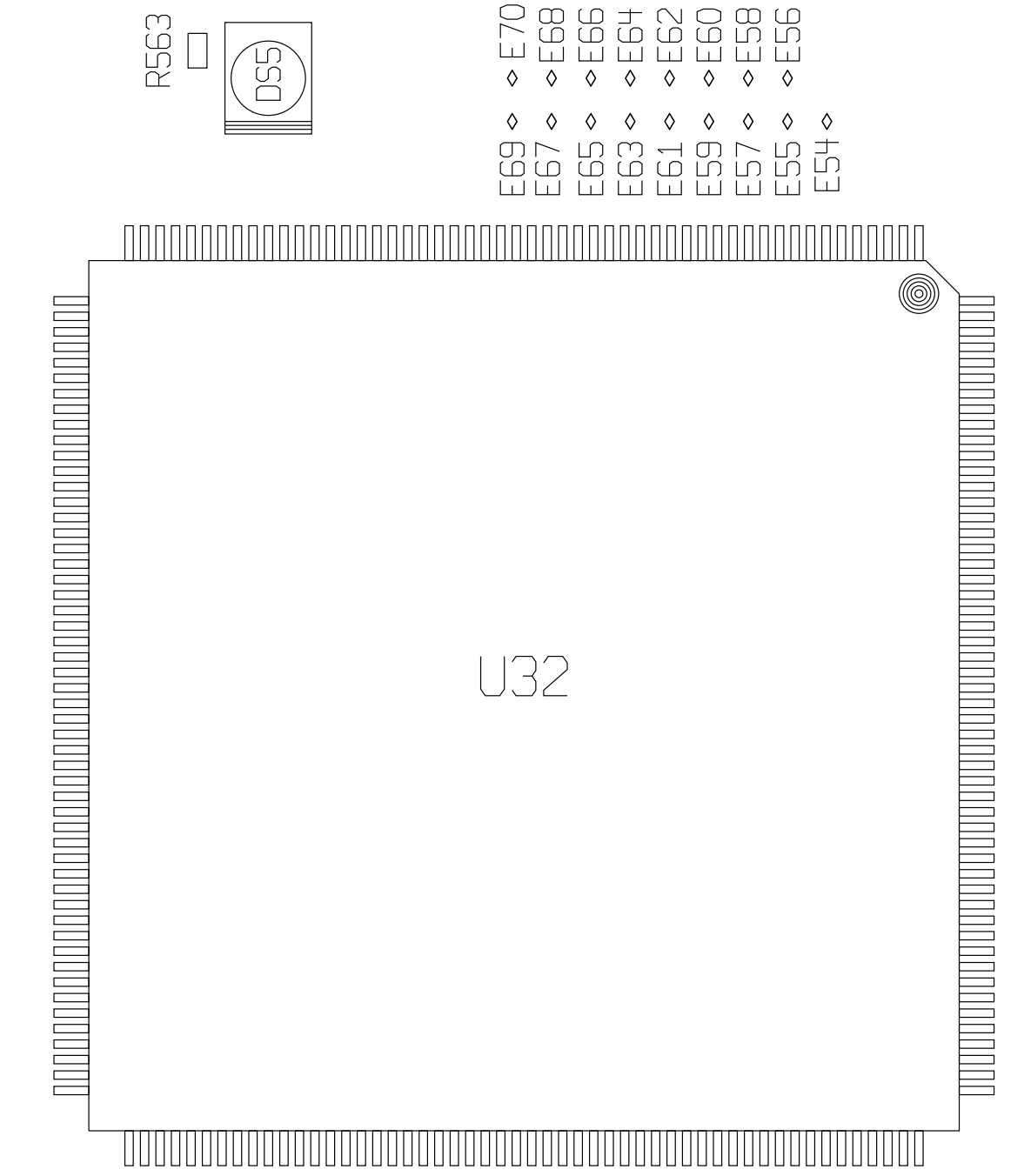
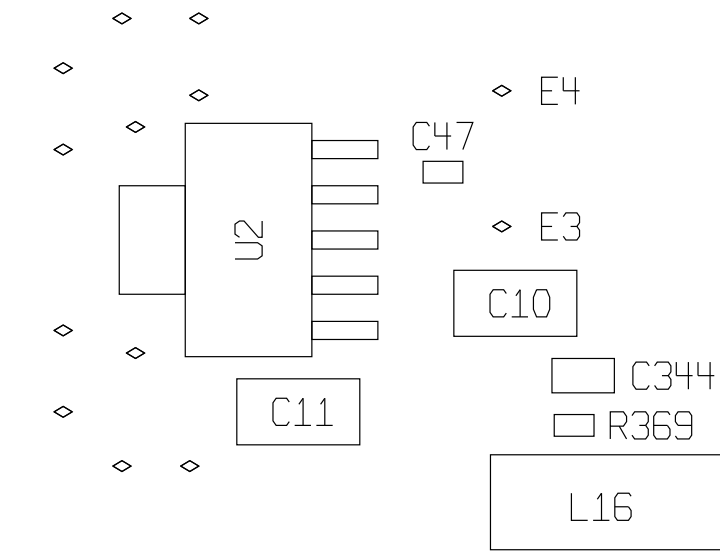
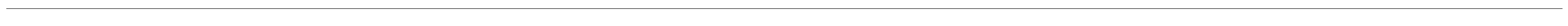
A

D

C

B

A



DETAIL B

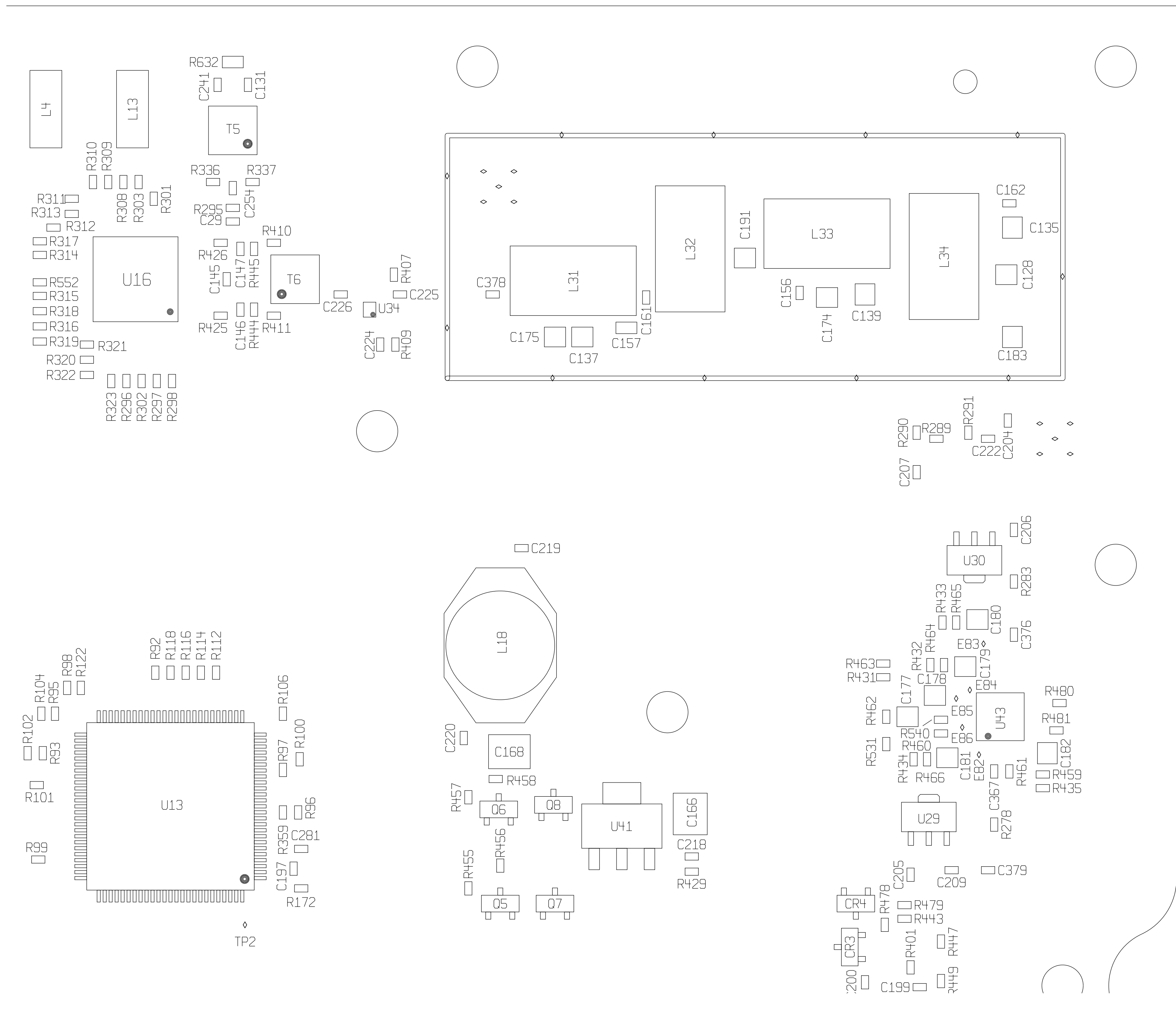
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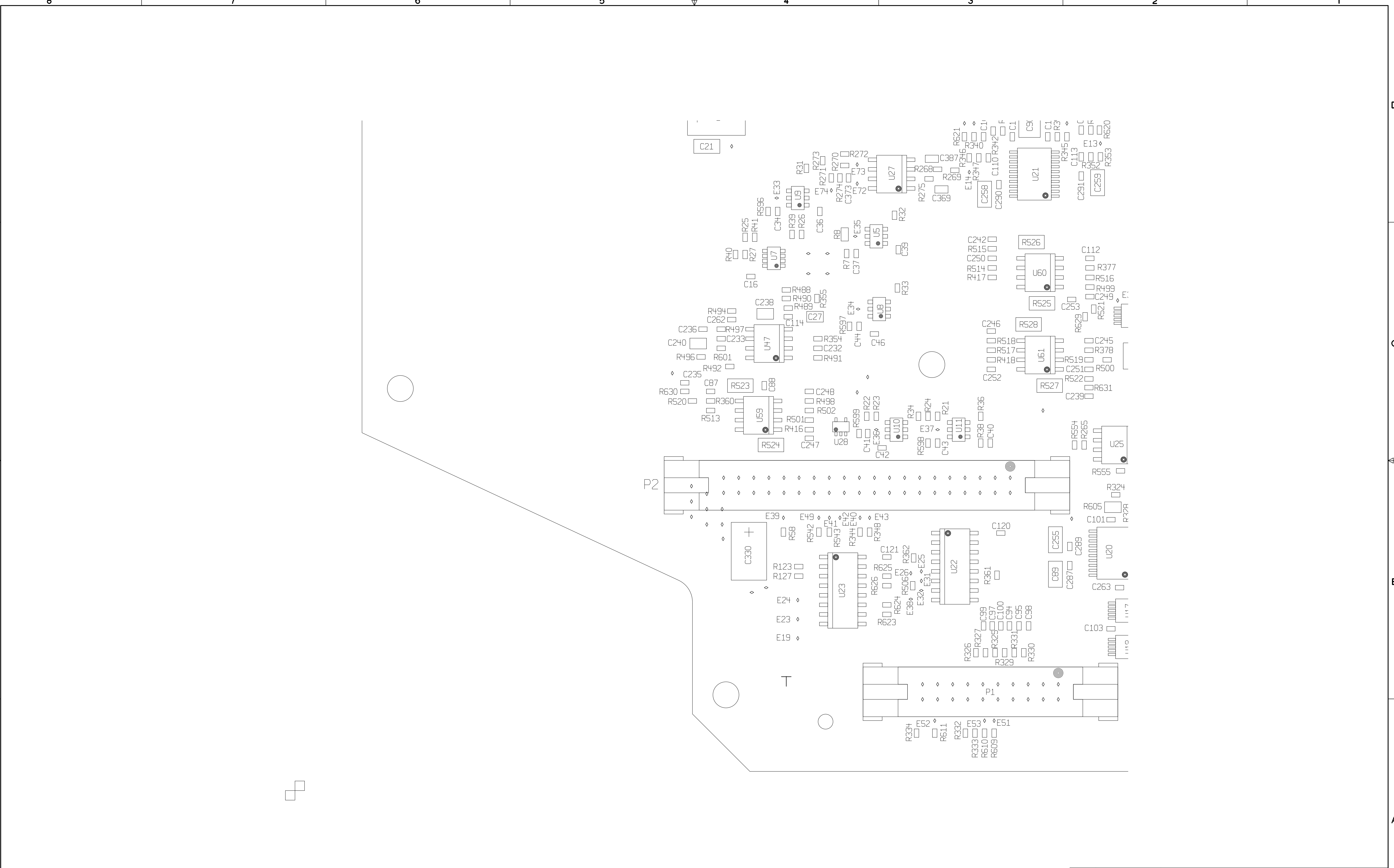


DETAIL C

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SIZE D	CAGEC OEFD0	DWG NO 828-2037-002	REV A
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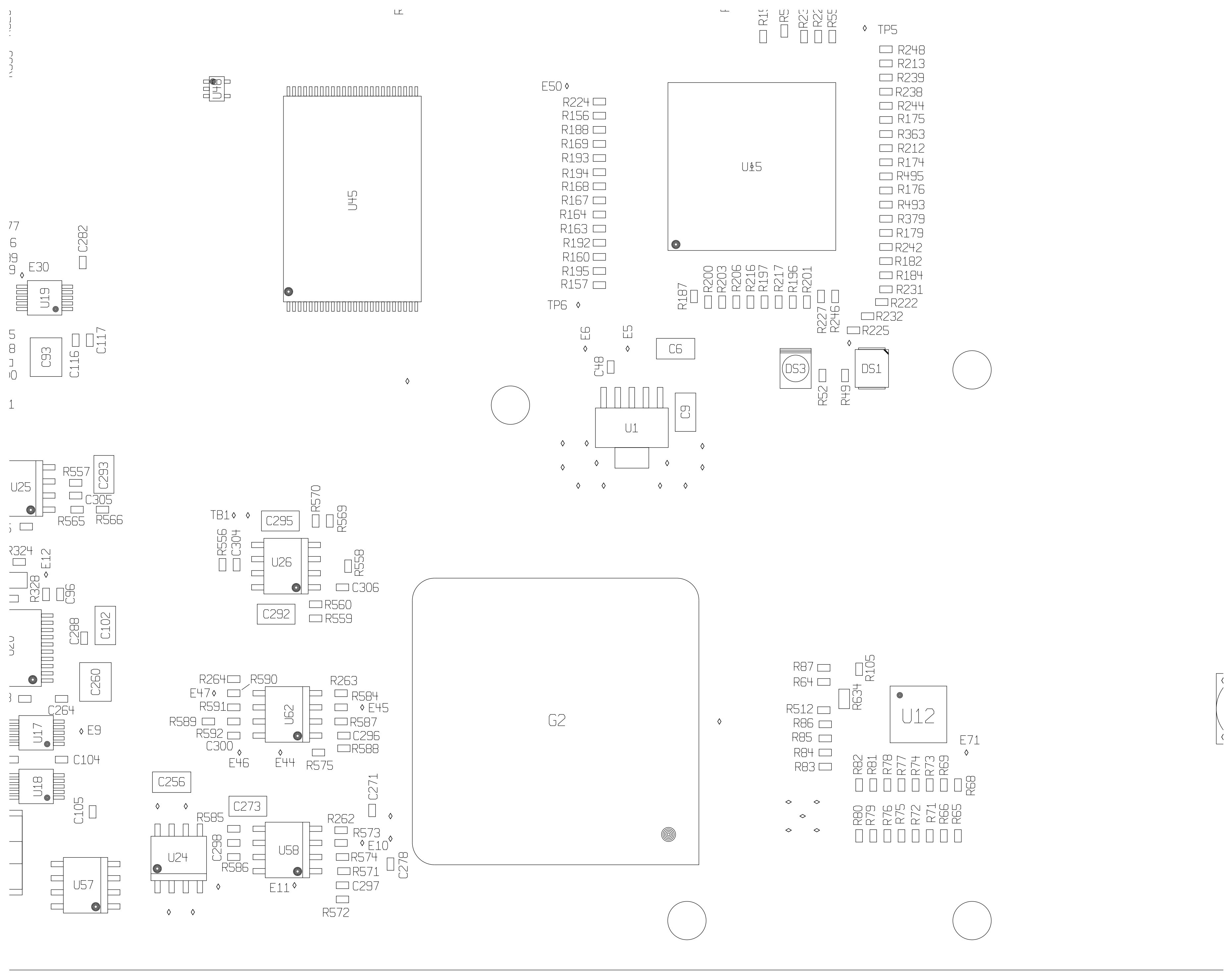


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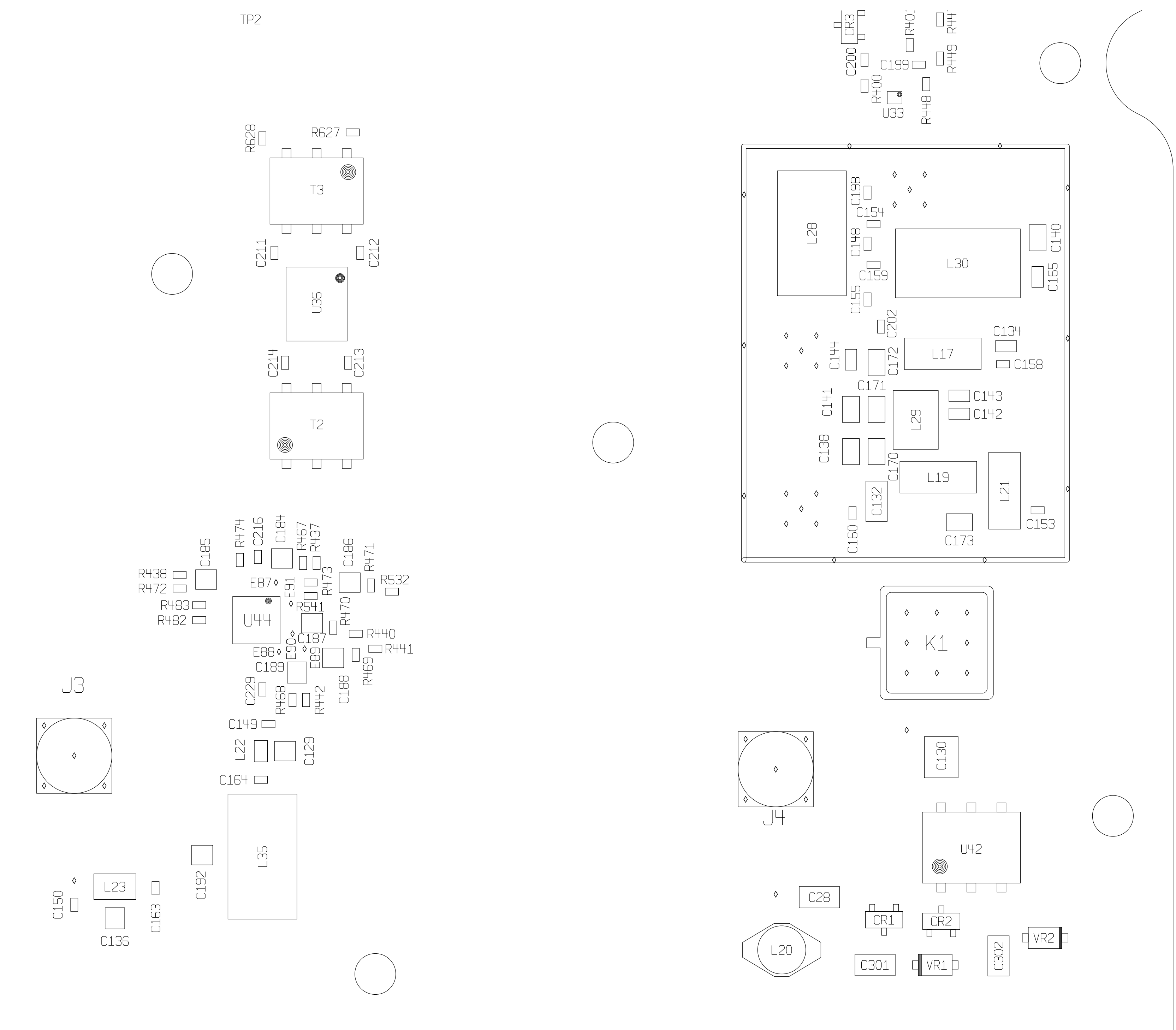


DETAIL E

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SIZE D	CAGEC 0EFD0	DWG NO 828-2037-002	REV A
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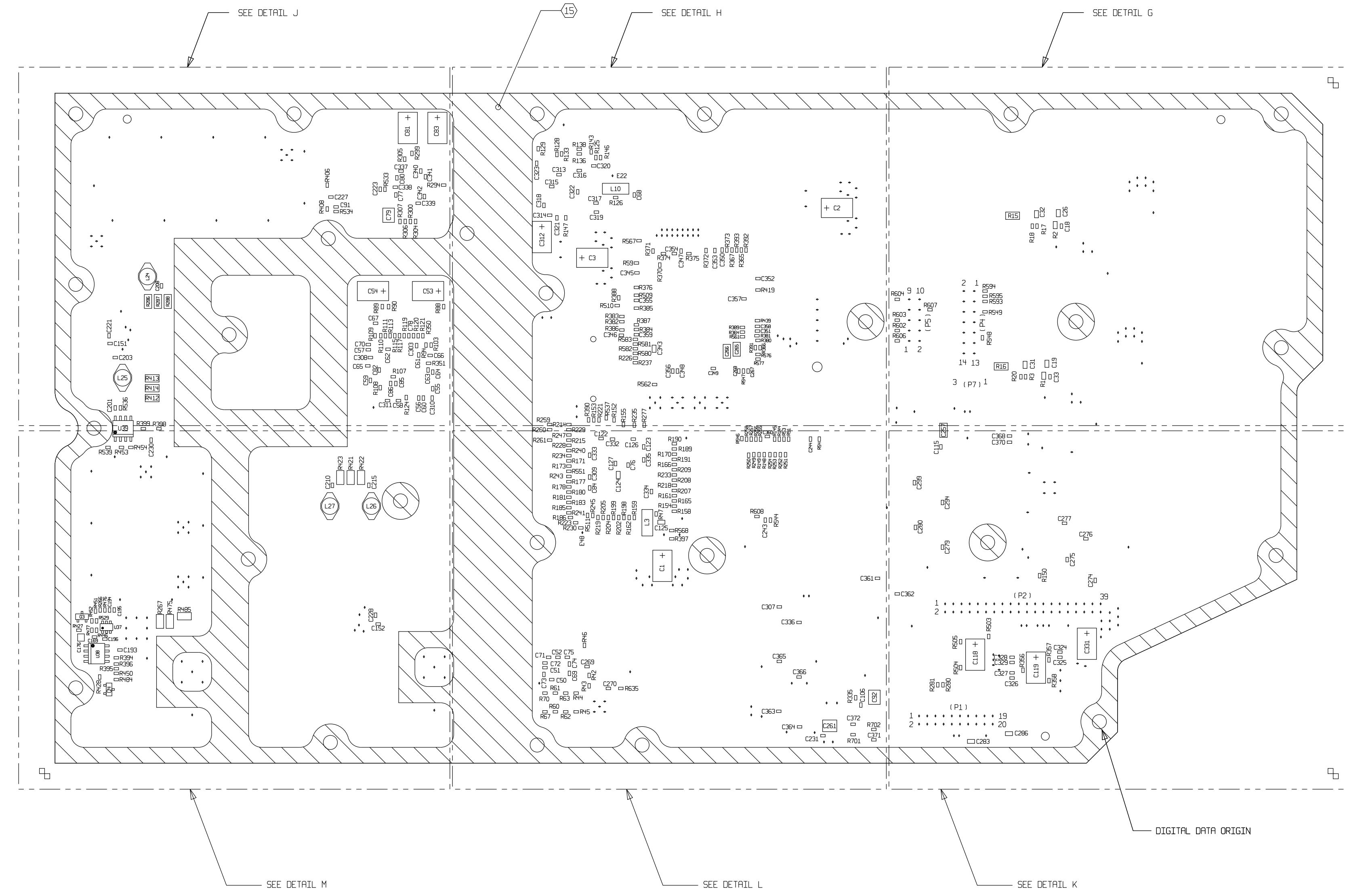


DETAIL F

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SIZE D	CAGEC OEFDO	DWG NO 828-2037-002	REV A
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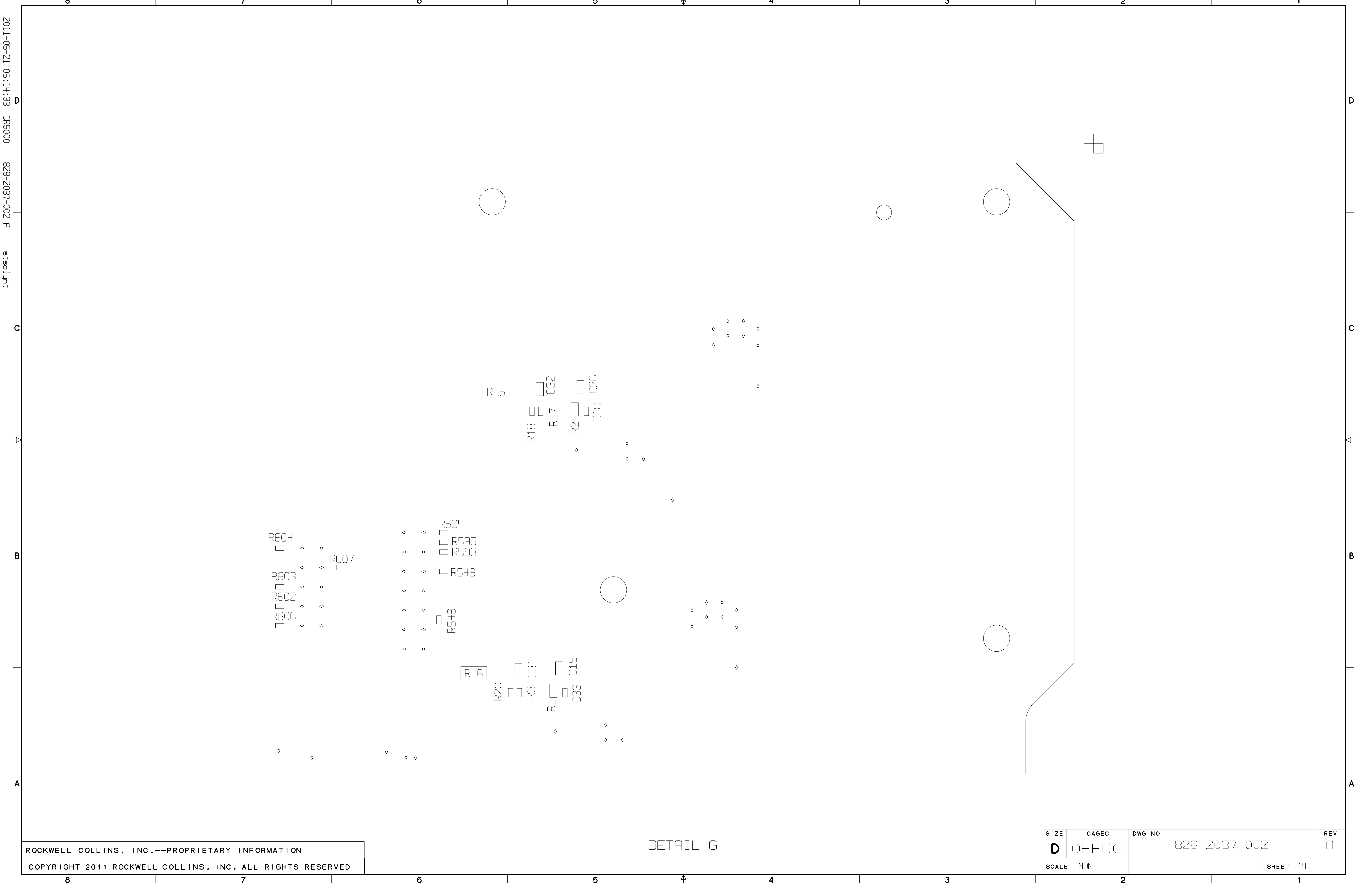


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SCALE NONE	SHEET 13		

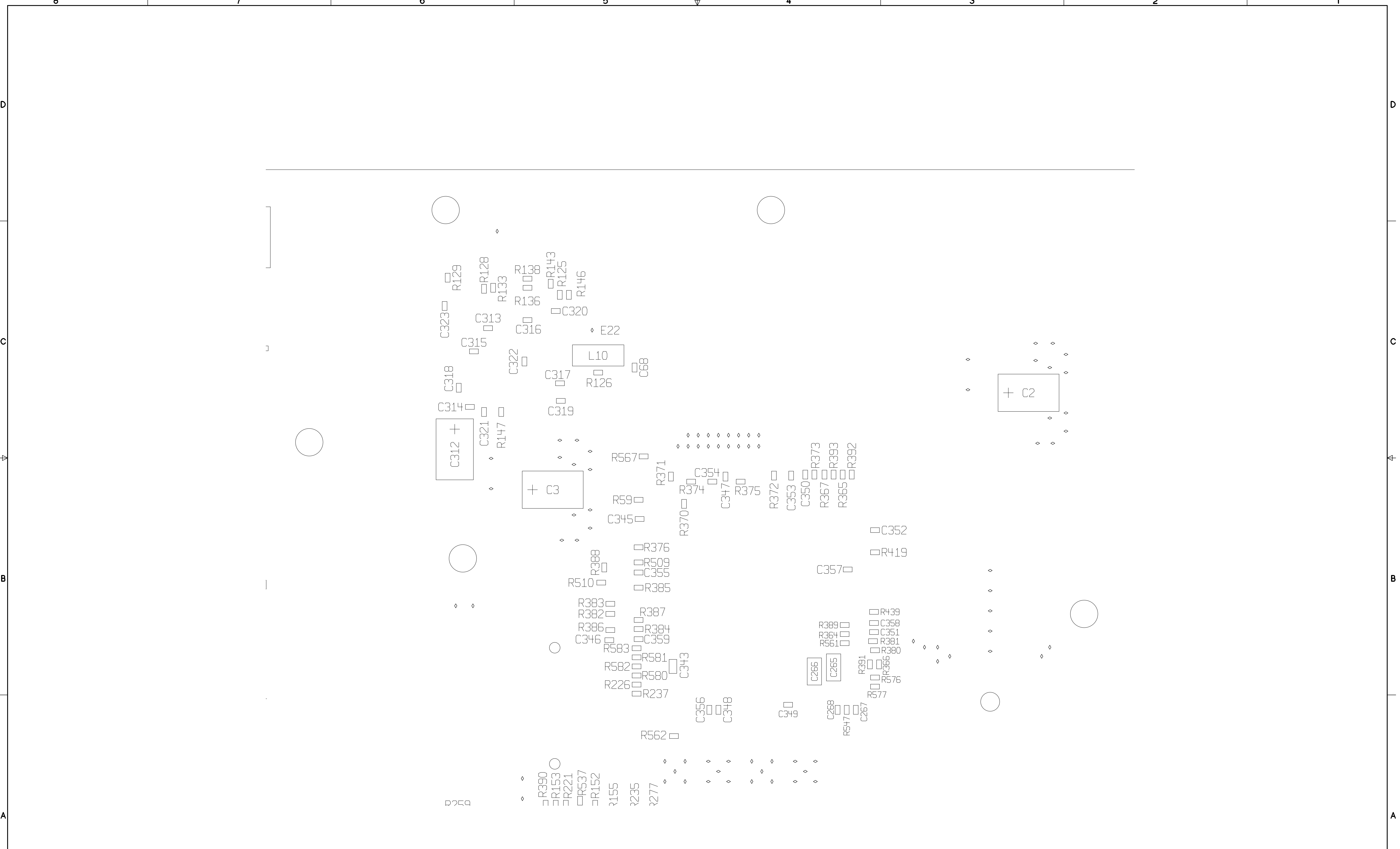
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DETAIL G

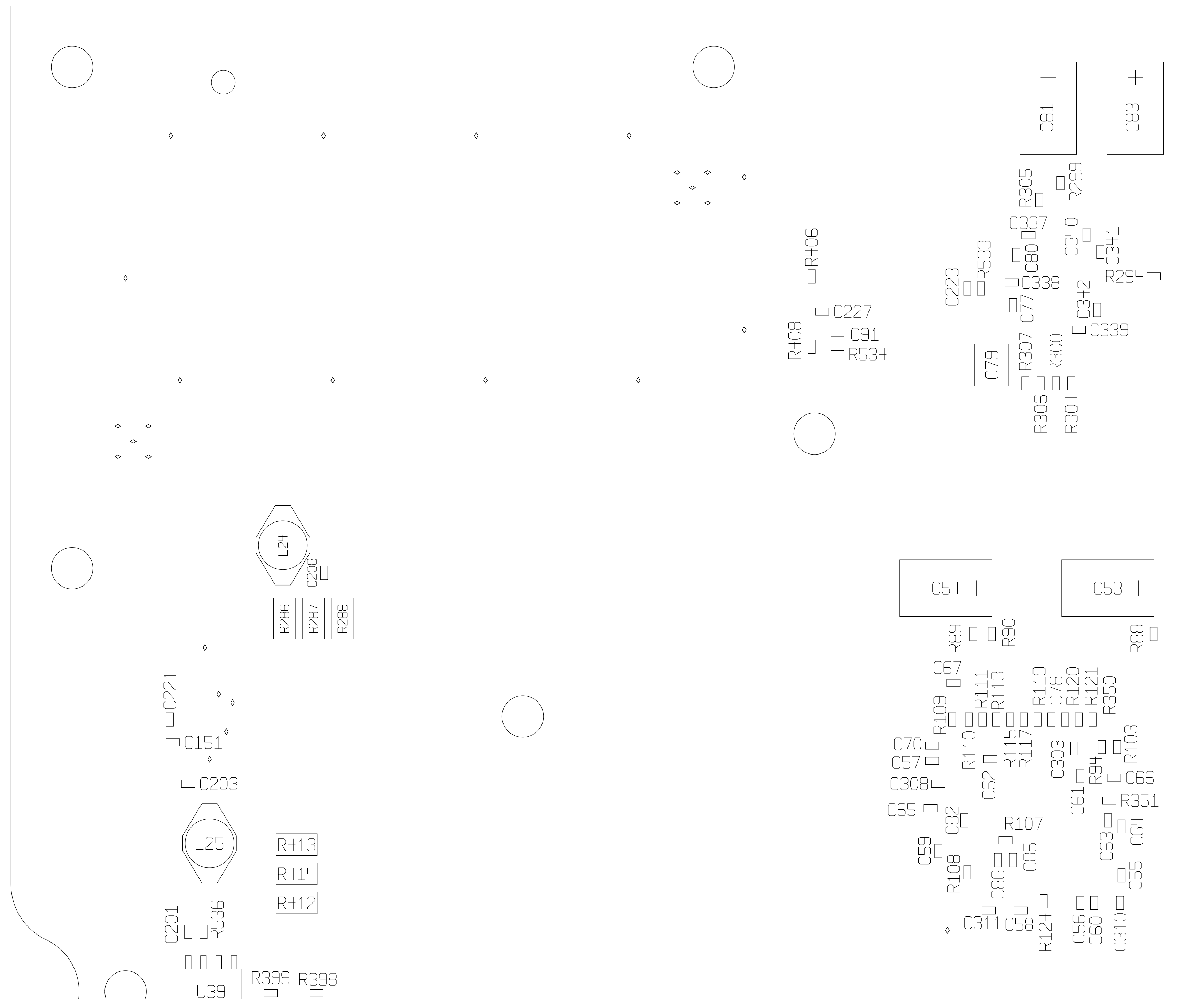
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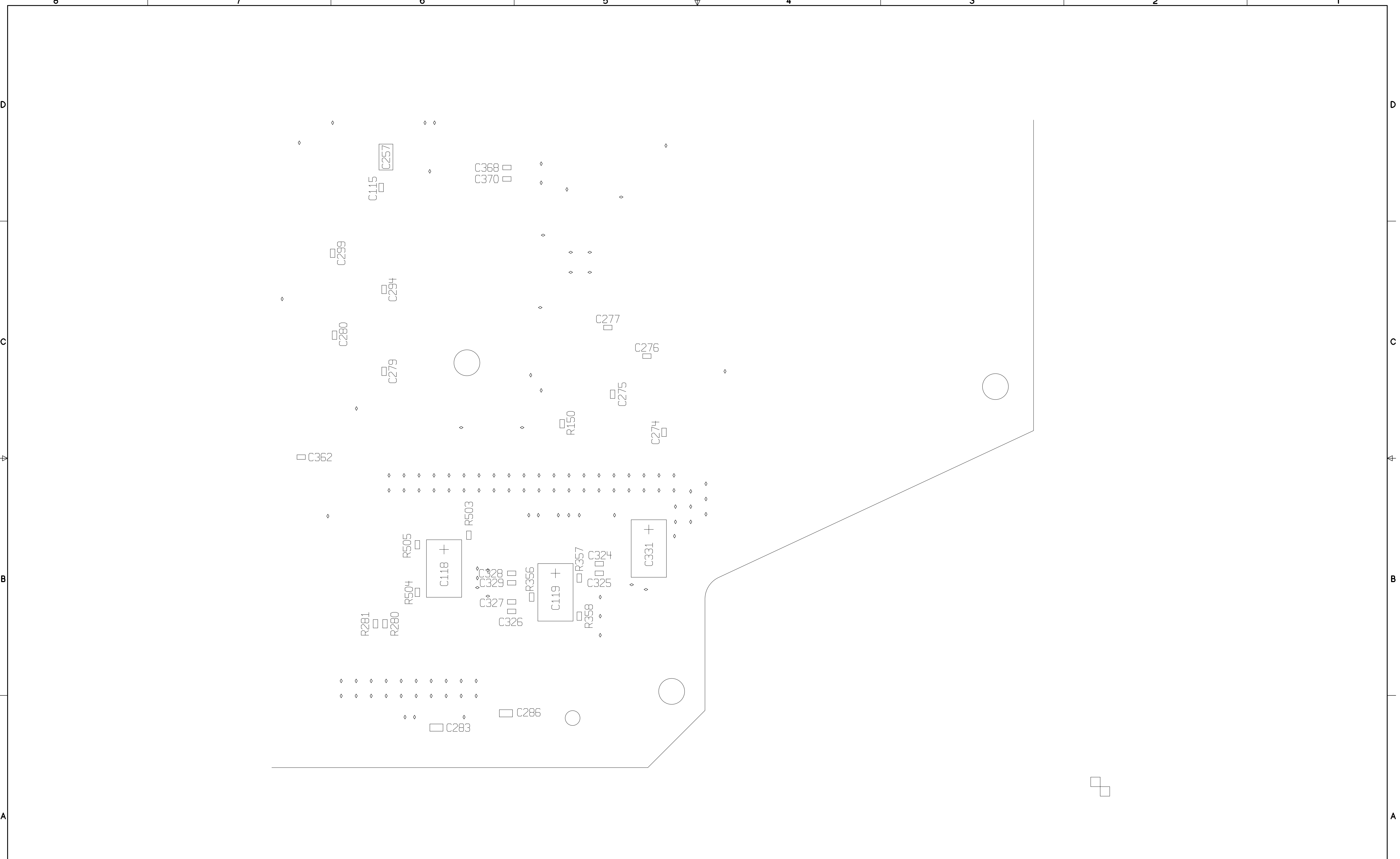
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DETAIL J

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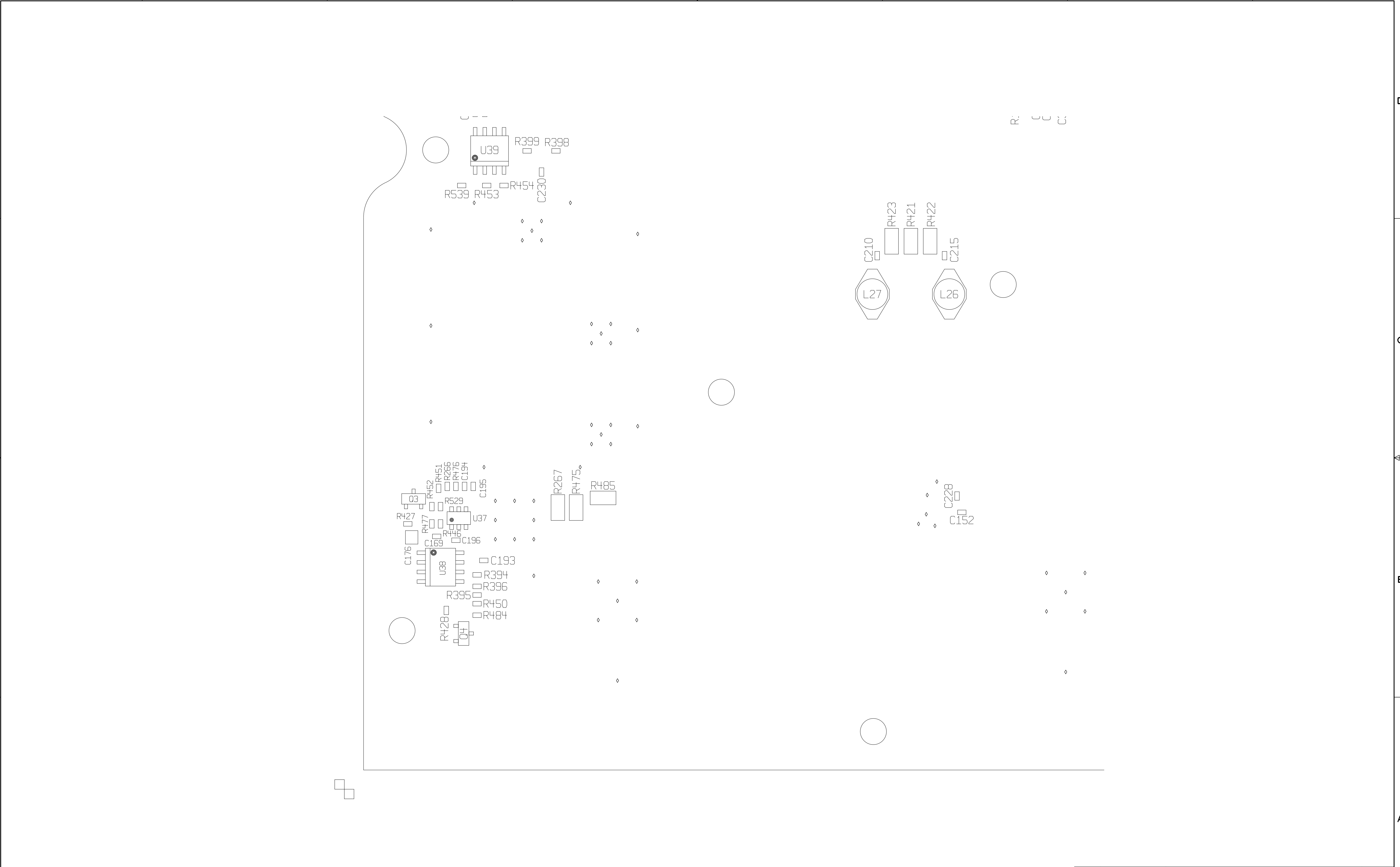


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DETAIL K

SIZE D	CAGEC 0EFDO	DWG NO 828-2037-002	REV A
SCALE NONE		SHEET 17	

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DETAIL M

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SIZE D	CAGEC 0EFDO	DWG NO 828-2037-002	REV A
SCALE NONE	SHEET 19		