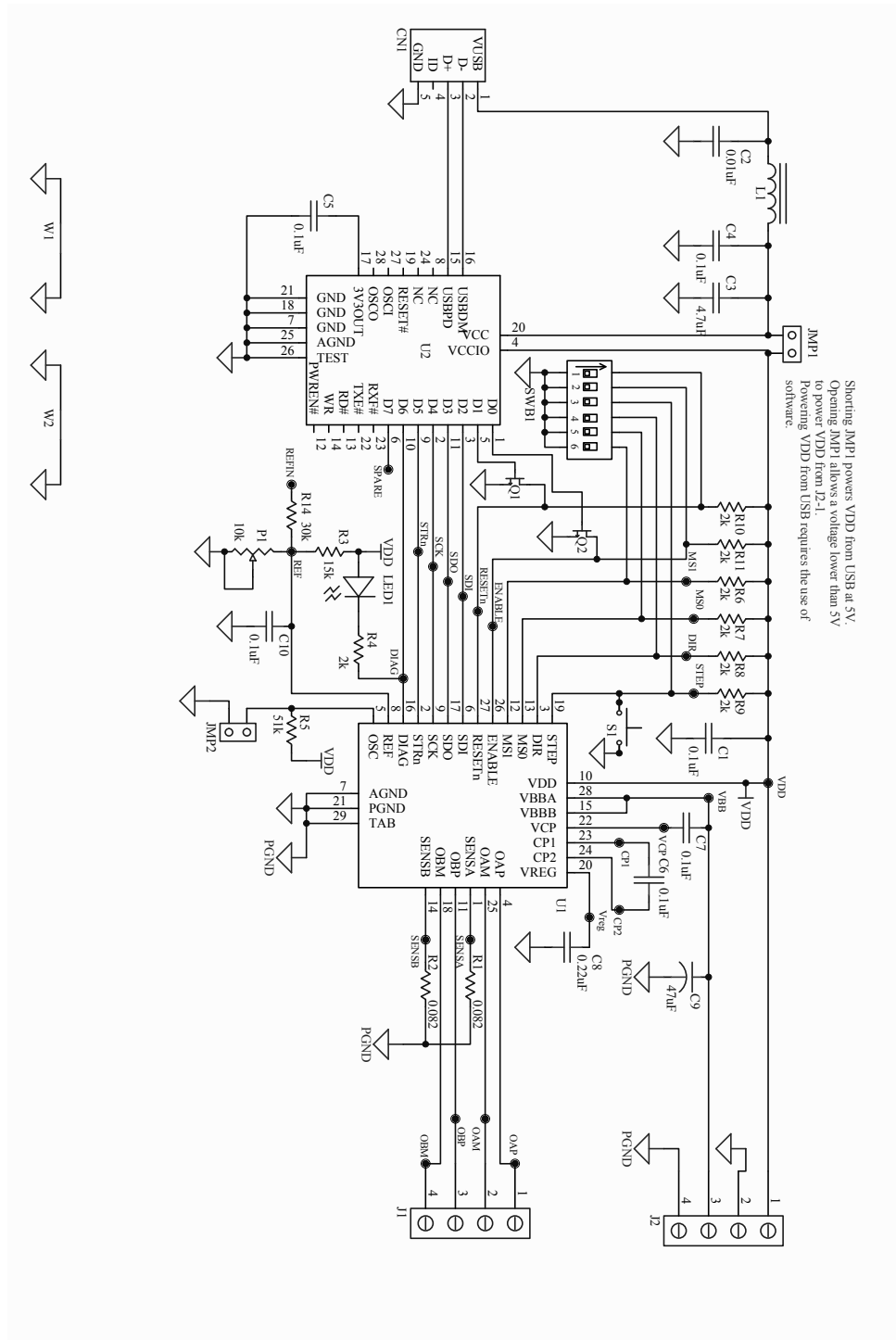
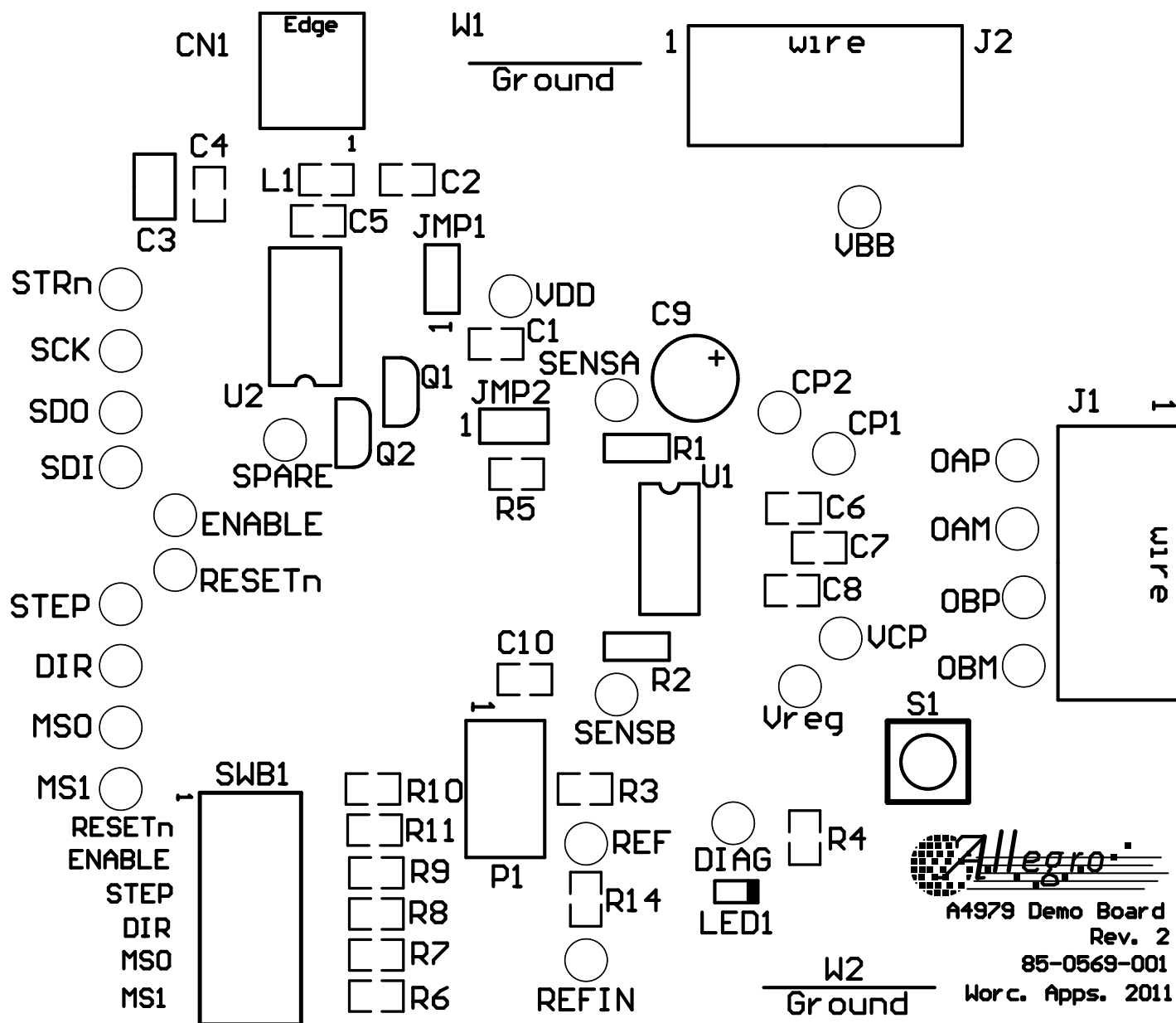


Demo Board Schematic/Layout

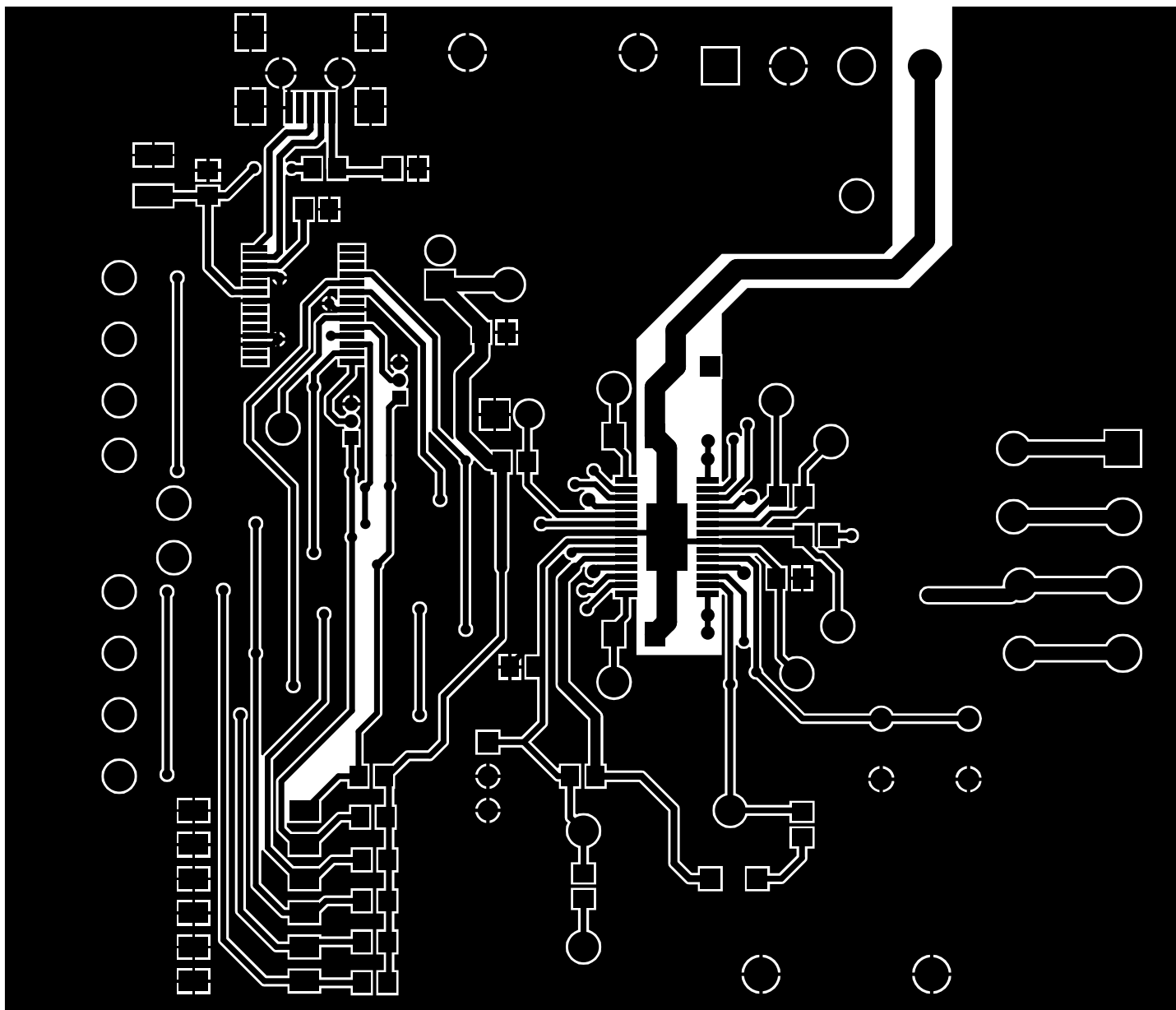
SCHEMATIC

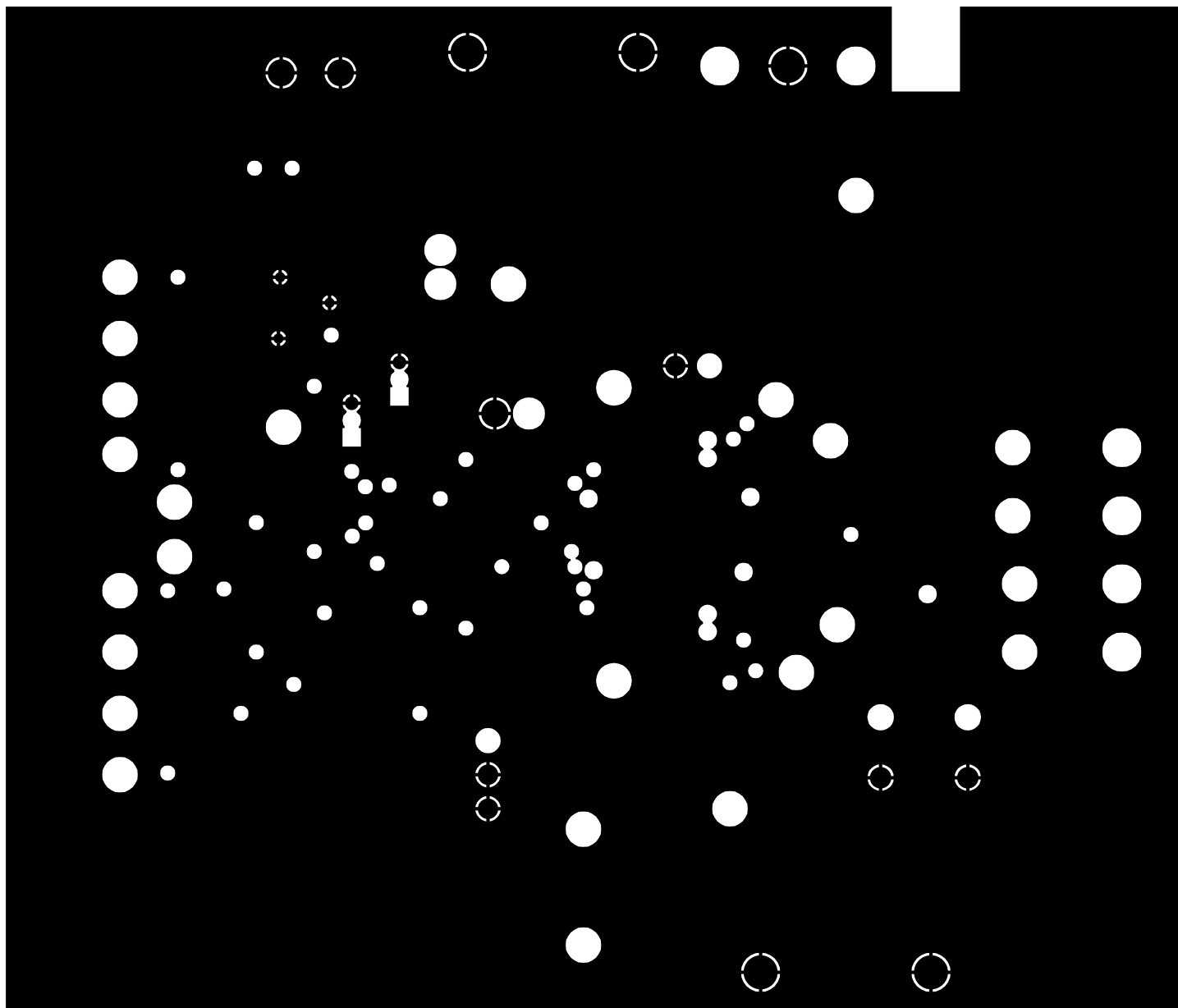


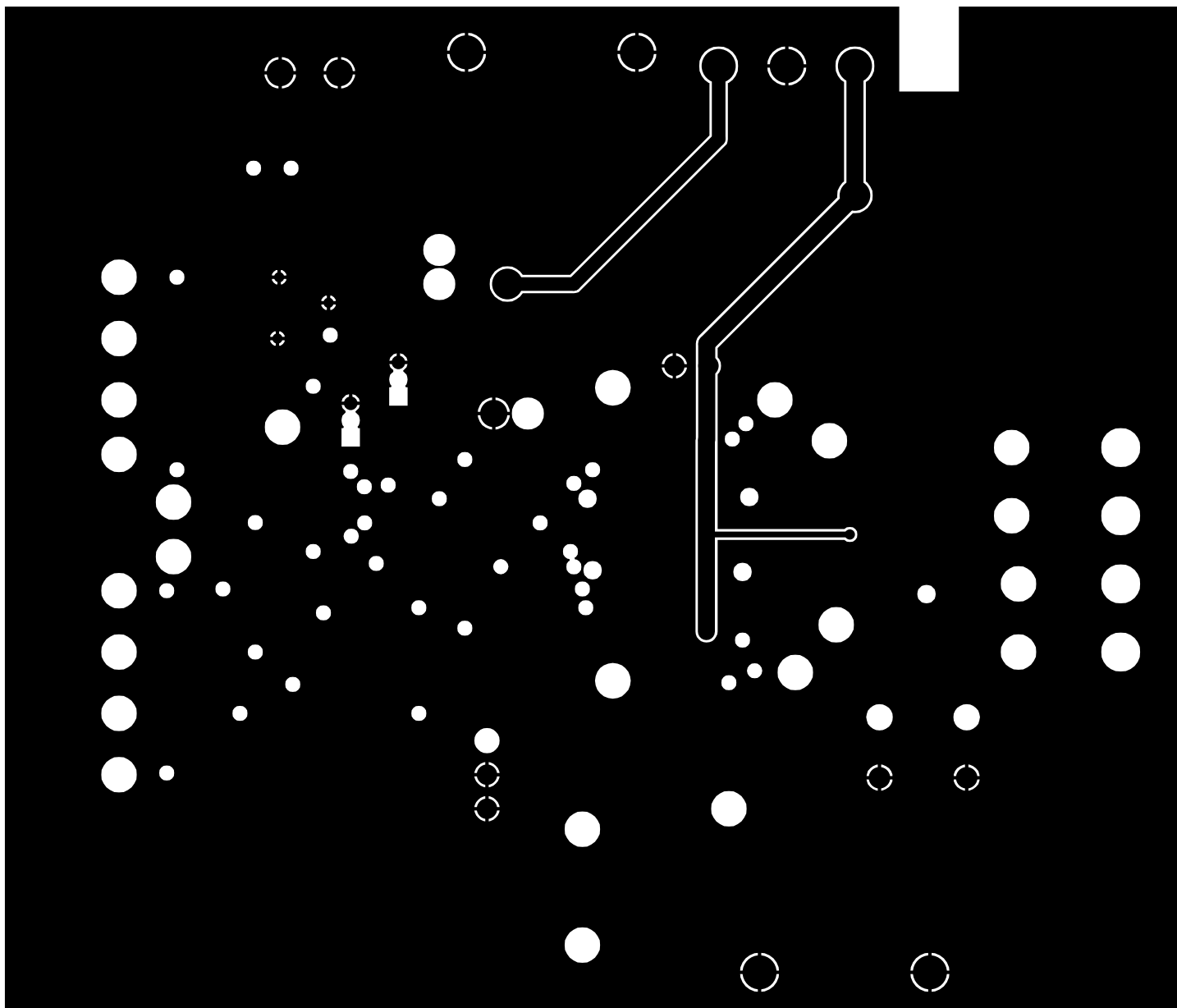
LAYOUT

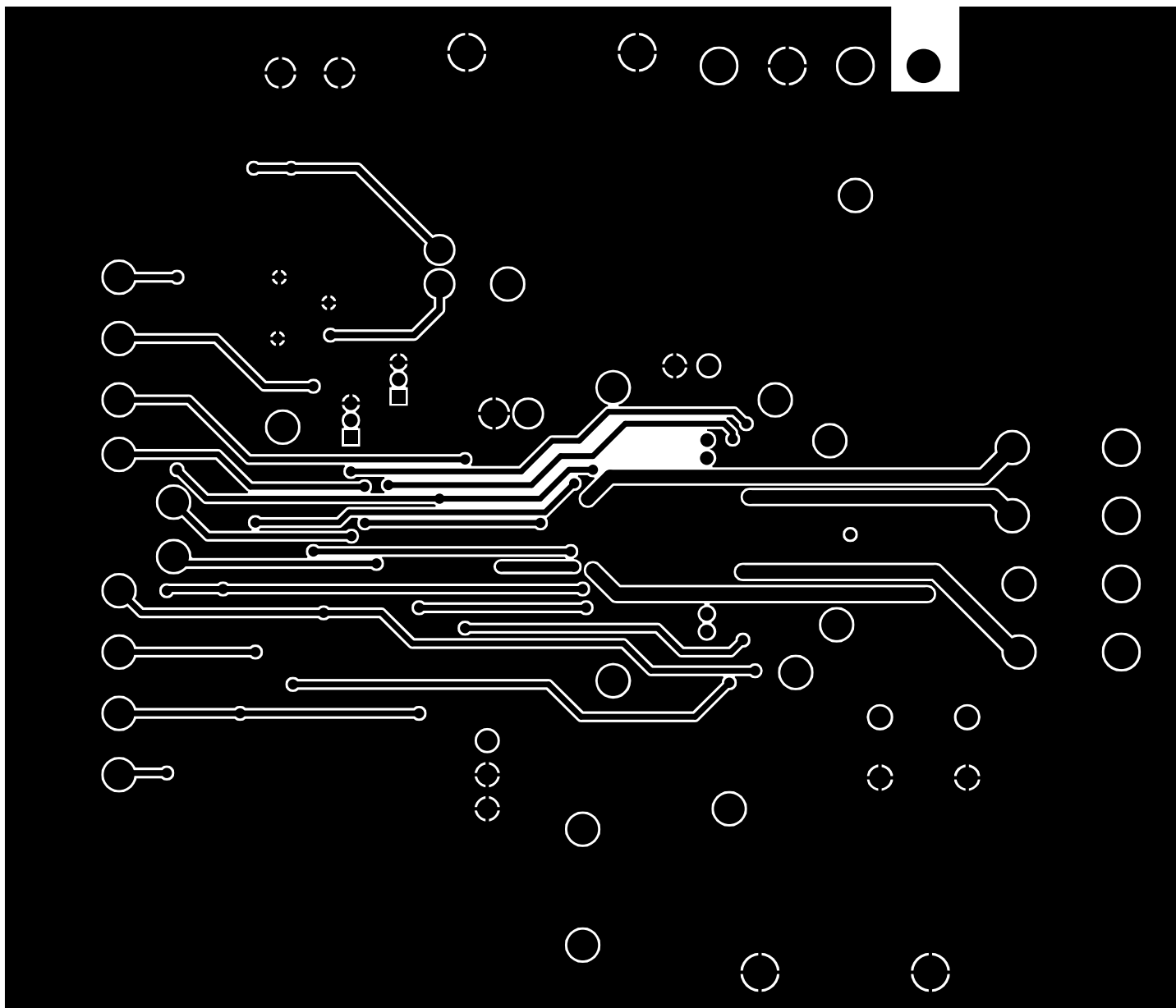


LAYOUT









BILL OF MATERIALS

Item	Quantity	Designator	value	Description	PartType	Footprint
1	4	C1, C4, C5, C10	0.1uF	16V Capacitor	Murata GRM219R71C104KA01D; Digikey 490-1683-1-ND	0805
2	1	C2	0.01uF	50V Capacitor	Murata GRM216R71H103KA01D; Digikey 490-1664-1-ND	0805
3	1	C3	4.7uF	16V Capacitor	Taiyo Yuden EMK325B7475KN-T; Digikey 587-1392-1-ND	1210
4	2	C6, C7	0.1uF	50V Capacitor	TDK C2012X7R1H104K; Digikey 445-1349-1-ND	0805
5	1	C8	0.22uF	25V Capacitor	TDK C2012X7R1E224K; Digikey 445-1352-1-ND	0805
6	1	C9	47uF	50V Capacitor	Panasonic ECA-1HM470; Digikey P5181-ND	cap2
7	1	CN1		USB Mini B Recepticle	JAE Electronics DX2R005HN2E700; Digikey 670-1190-1-ND	DX2R005HN2E700
8	26	CP1, CP2, DIAG, DIR, ENABLE, MS0, MS1, OAM, OAP, OBM, OBP, REF, REFIN, RESETn, SCK, SDI, SDO, SENSa, SENSB, SPARE, STEP, STRn, VBB, VCP, VDD, Vreg		Large Test Point	Keystone Electronics 5010; Digikey 5010K-ND	PAD 57 125 TP HB
9	4			Bumpon Foot	3M SJ-5303 (CLEAR); Digikey SJ5303-7-ND	Bumpon Foot
10	2	J1, J2		4-Pin Screw Down Terminal Block	On Shore ED120/4DS; Digikey ED2227-ND	4-pin screw down connector
11	2	JMP1, JMP2		Cut pins from 50-pin strip	Samtec TSW-150-07-T-S; Digikey SAM1035-50-ND	2-pos. shunt
12	1	L1		Ferrite Bead	Laird MI0805K400R-10; Digikey 240-2389-1-ND	0805
13	1	LED1		Red Surface-mount LED	Lite-On LTST-C150CKT; Digikey 160-1167-1-ND	1206 LED
14	1	P1	10k	1/2W Potentiometer	Bourns 3299W-103LF; Digikey 3299W-103LF-ND	Through-hole Trimpot
15	2	Q1, Q2		60V 270mA N-FET	Diodes ZVN3306A; Digikey ZVN3306A-ND	TO-92 Compatible
16	2	R1, R2	0.082	1/4W Resistor	Rohm MCR18EZHF5R082; Digikey RHM.082RCT-ND	1206
17	1	R3	15k	1/8W Resistor	Panasonic ERJ-6GEYJ153V; Digikey P15KACT-ND	0805
18	7	R4, R6, R7, R8, R9, R10, R11	2k	1/8W Resistor	Panasonic ERJ-6GEYJ202V; Digikey P2.0KACT-ND	0805
19	1	R5	51k	1/8W Resistor	Yageo RC0805FR-0751KL; Digikey 311-51.0KCRCT-ND	0805
20	1	R14	30k	1/8W Resistor	Panasonic ERJ-6GEYJ303V; Digikey P30KACT-ND	0805
21	1	S1		Tactile Switch	APEM MJTP1230; Digikey 679-2428-ND	MJTP1230
22	1	SWB1		6-Position SPST Switches	C&K Components SDA06H0SBR; Digikey CKN9495CT-ND	SDA06H0SB
23	1	U1		Automotive, Programmable Stepper Driver	A4979xLP-T	28LP
24	1	U2		USB FIFO IC	FTDI FT245RL-REEL; Mouser 895-FT245RL	28LP no slug
25	1			pcb	85-0569-001 Rev. 2	
26	2			Shunts for JMP1 and JMP2	3M 969102-0000-DA; Digikey 3M9580-ND	
27	2	W1, W2		22 Gauge Buss Wire (300mils above pcb)		Scope Ground

Revision History

Number	Date	Description
–	September 6, 2016	Initial release

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