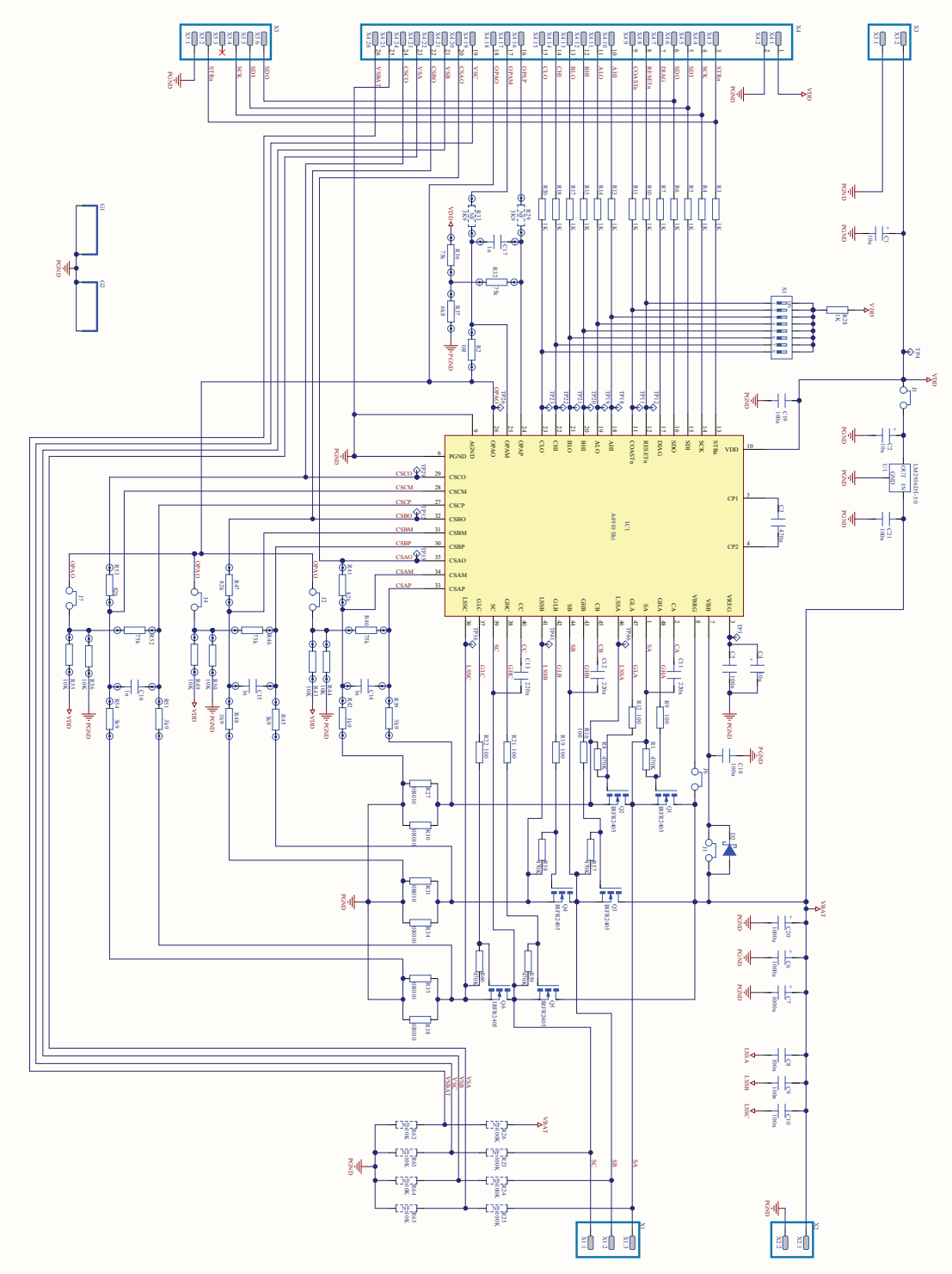
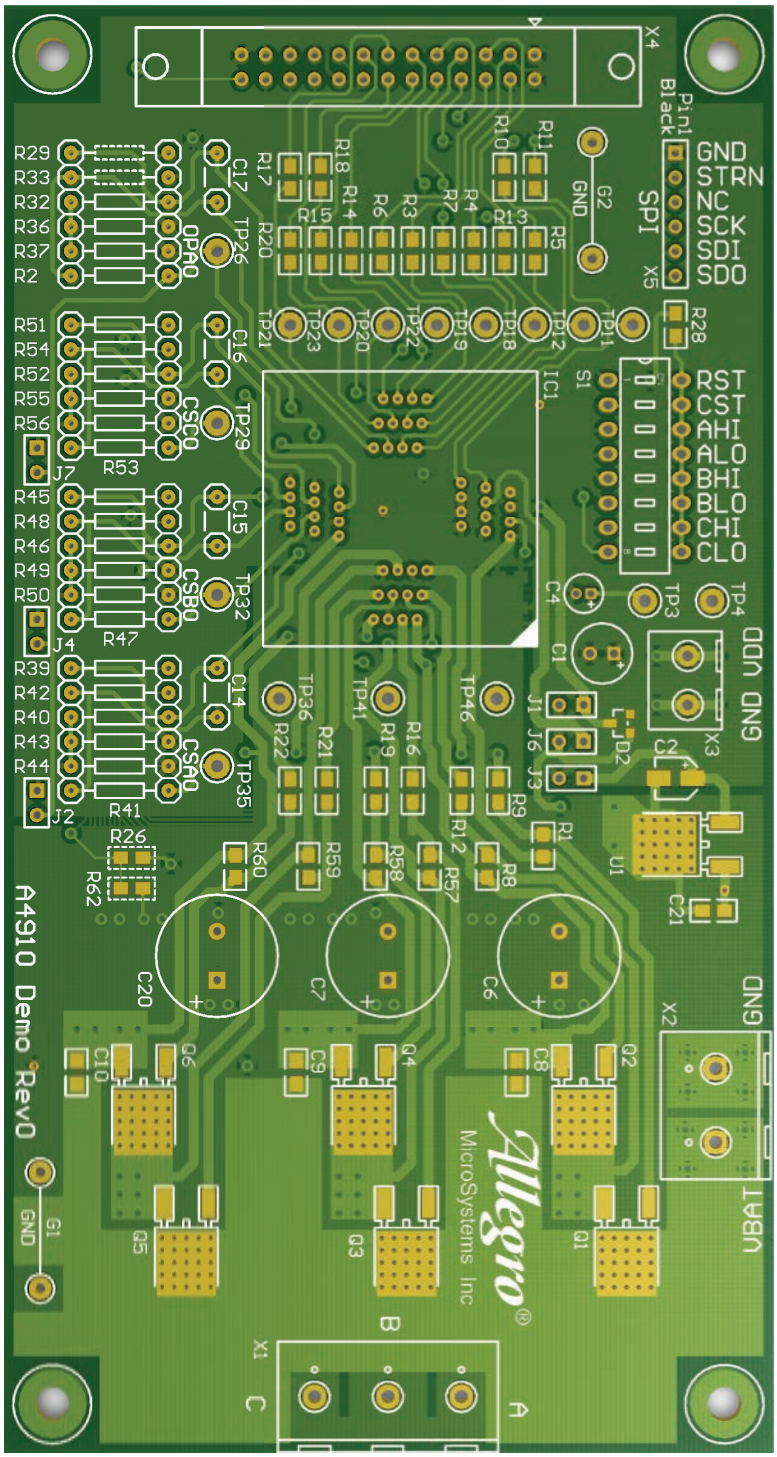
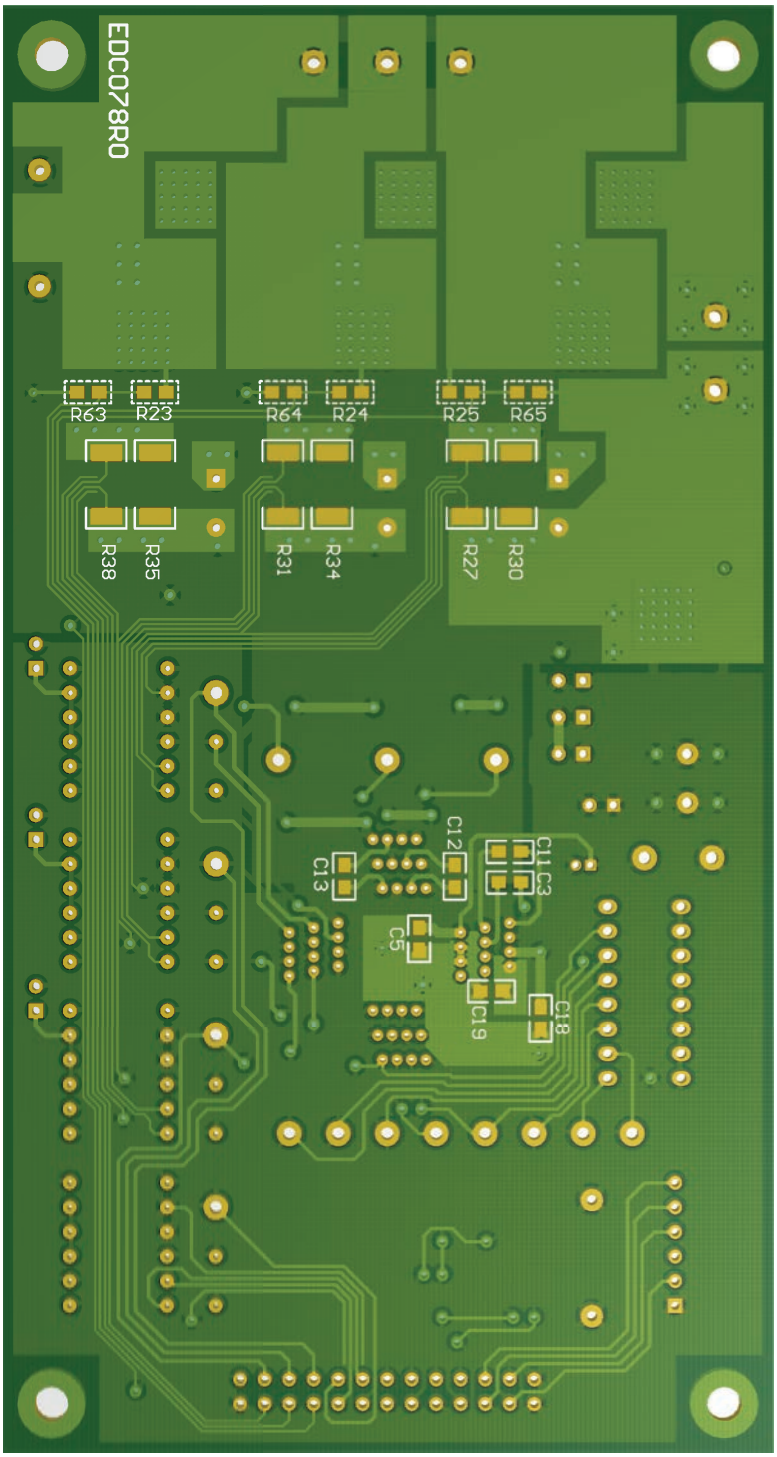
Demo Board Schematic/Layout

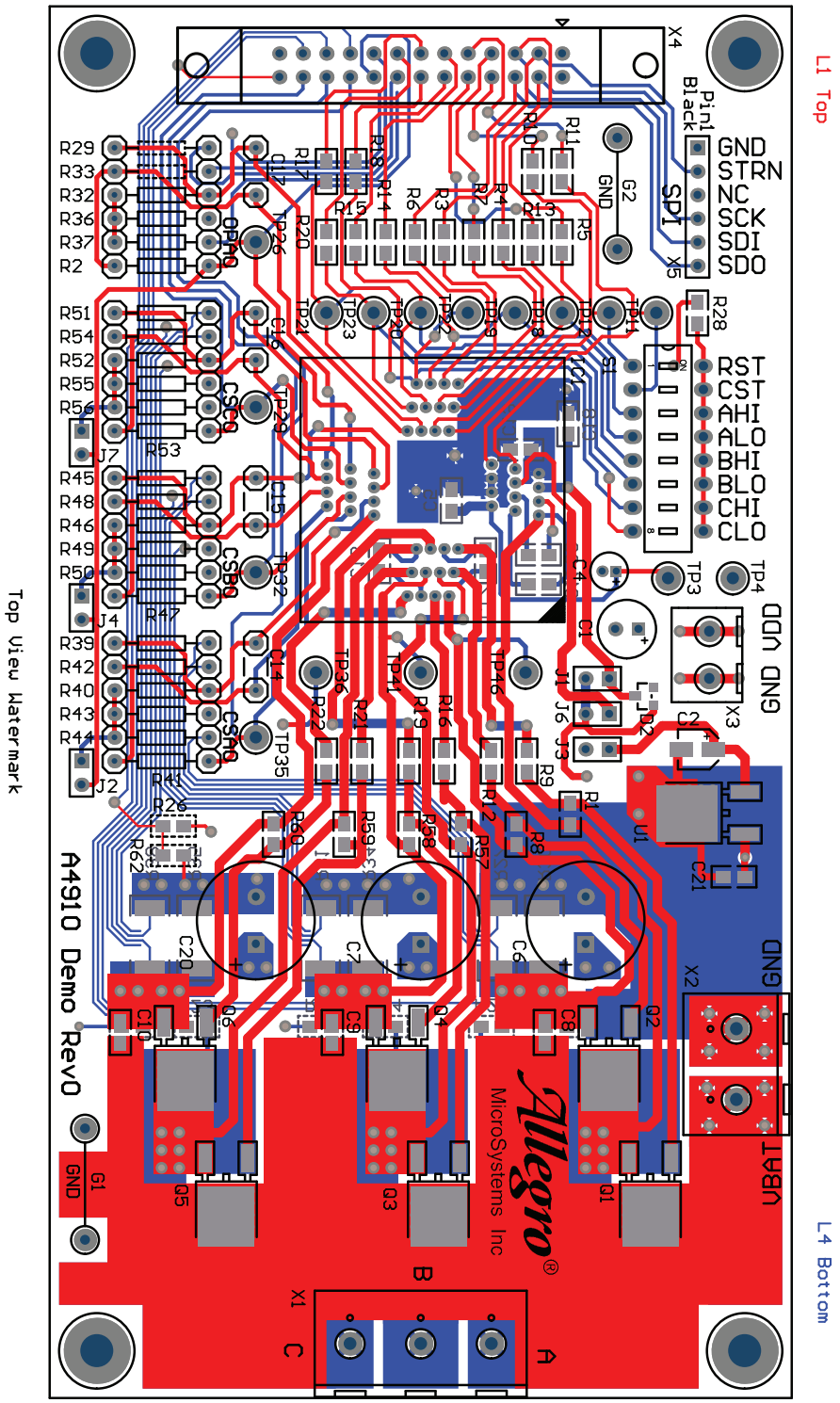
SCHEMATIC

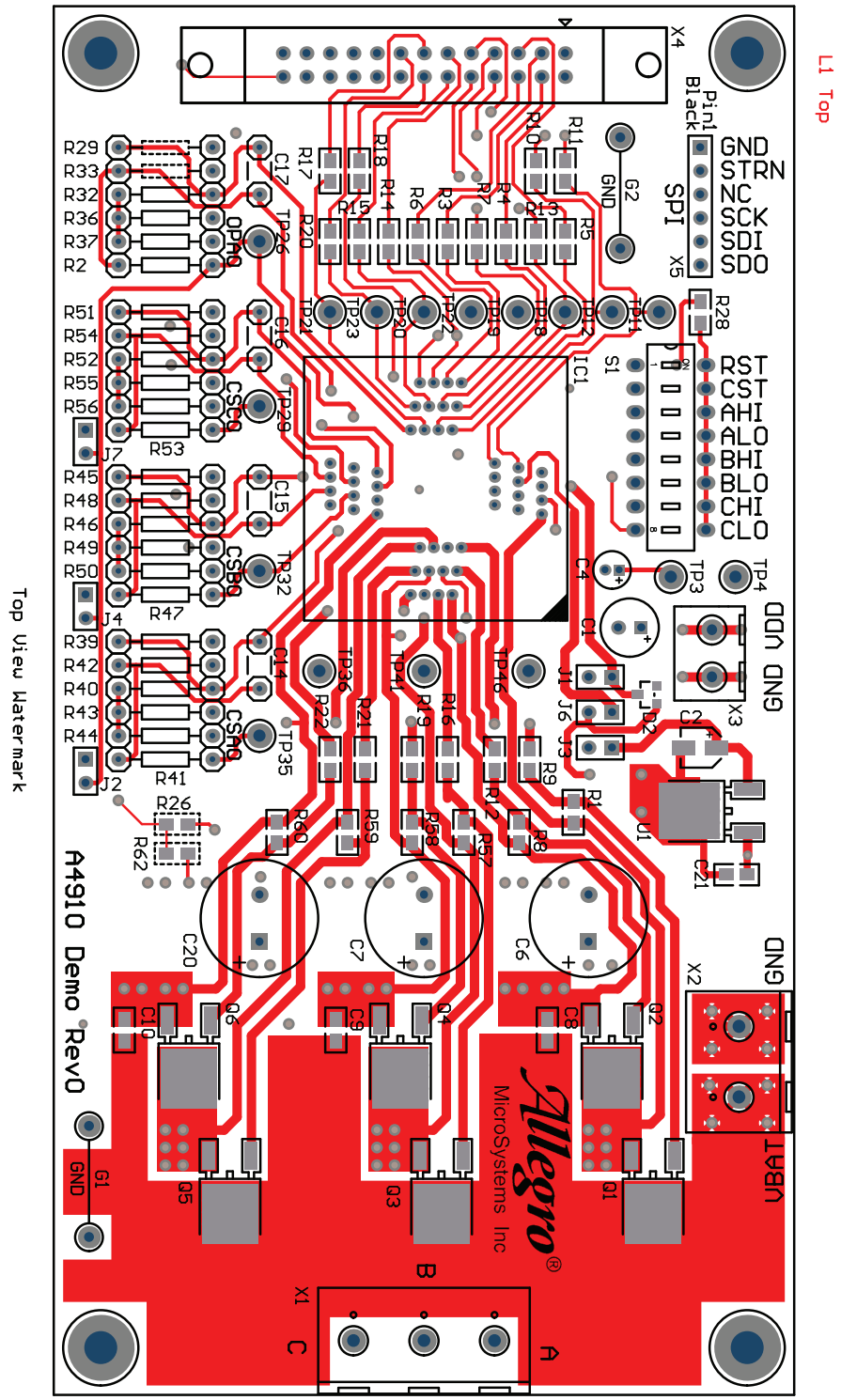


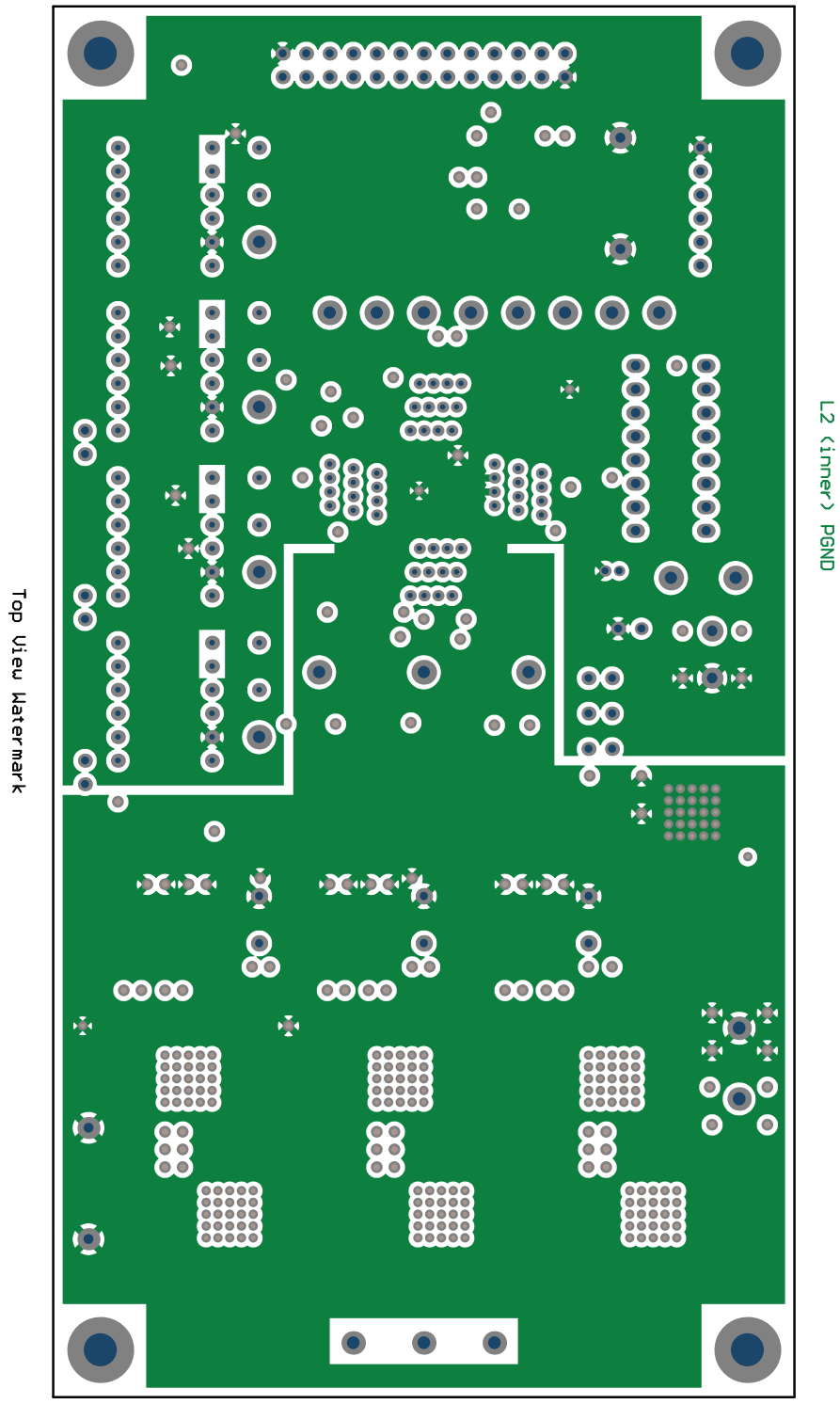
LAYOUT

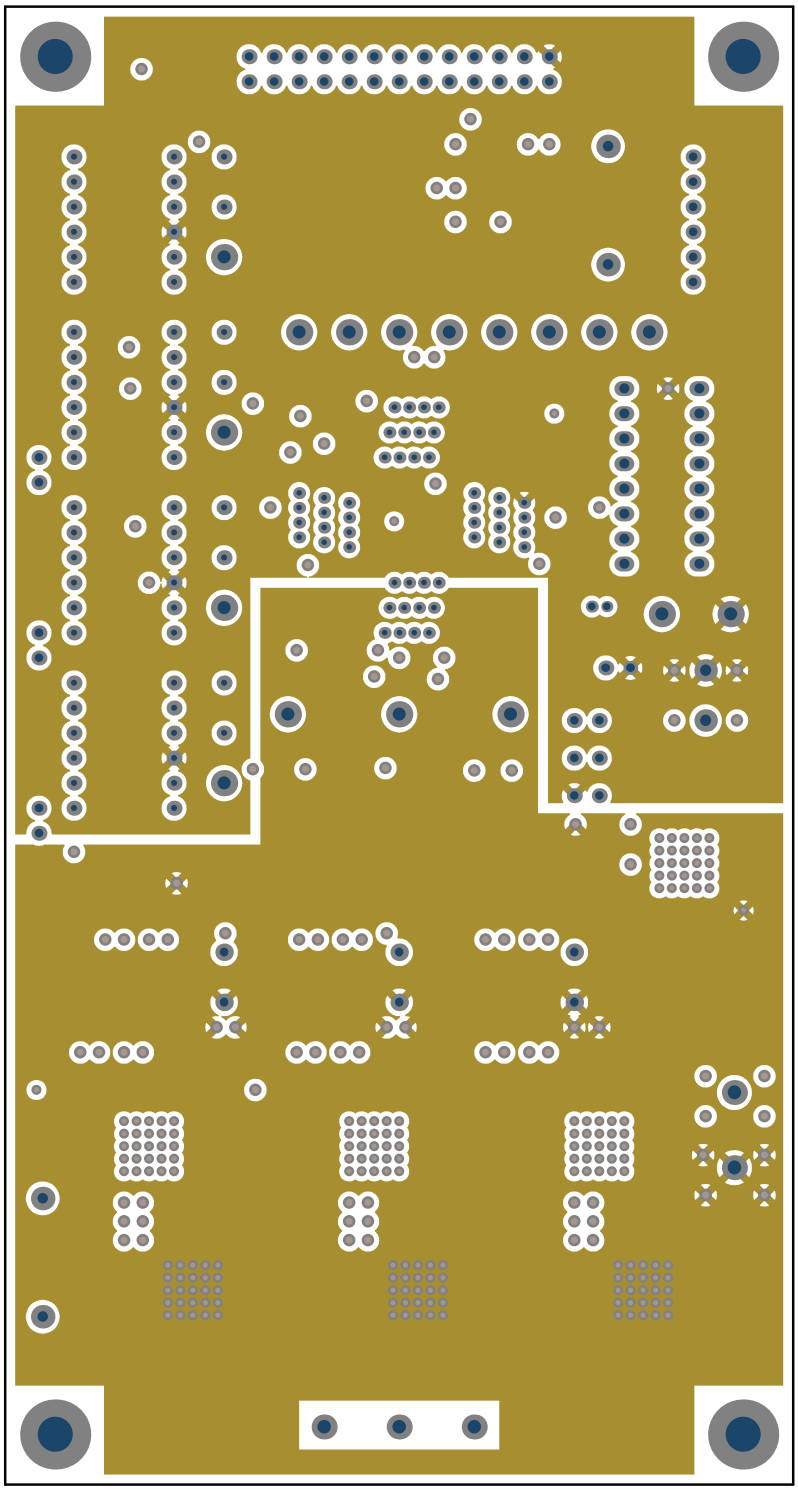

A4910 Demo RevD
GND
STRN
NC
SCK
SDI
SDO
SPI
RST
CST
AHI
ALO
BHI
BLO
CHI
CLO
GND
VDD
VBAT
Allegro
MicroSystems Inc

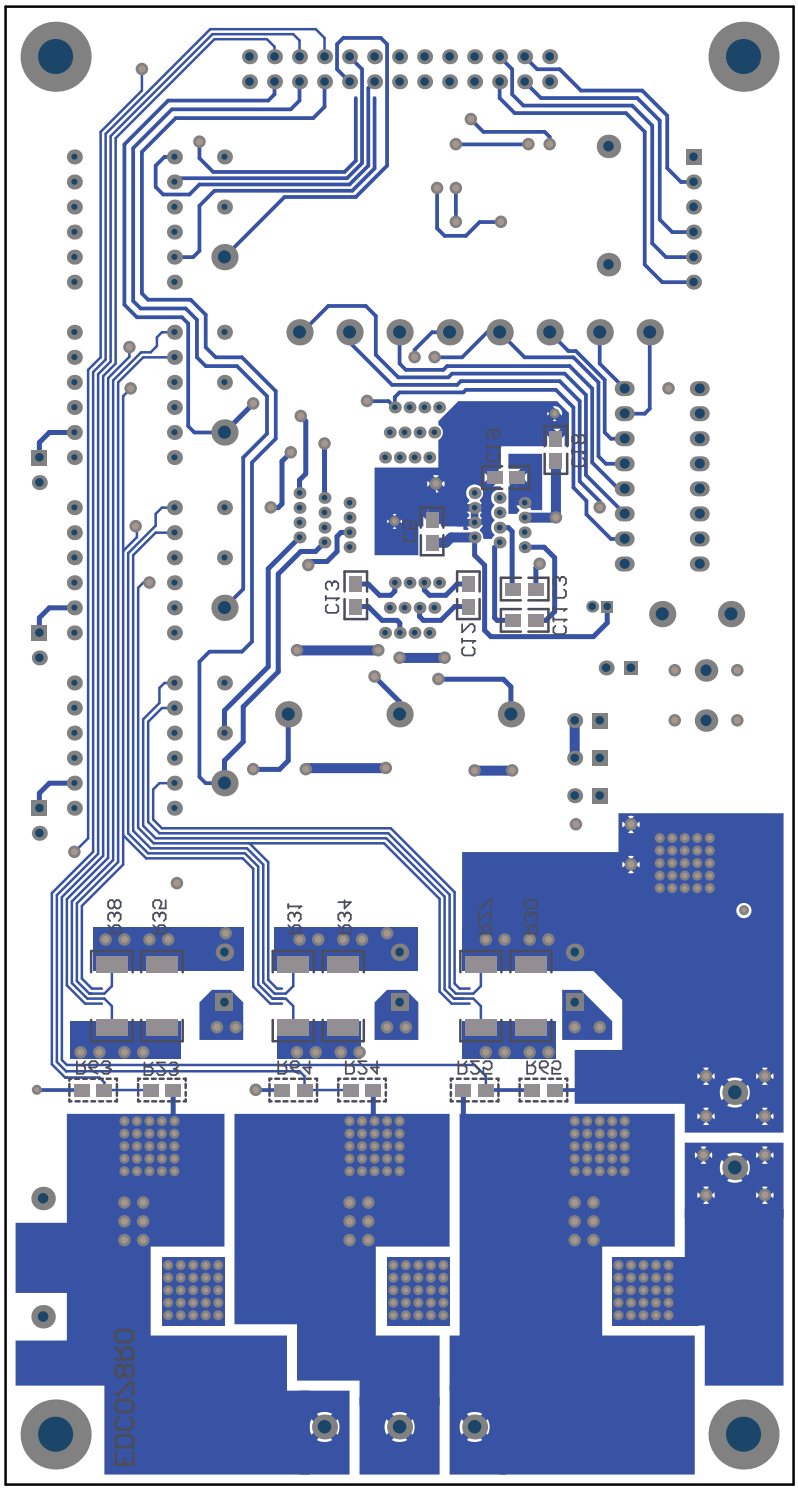

EDC078R0
R63
R23
R64
R24
R25
R65
R38
R35
R31
R34
R27
R30
C12
C11
C3
C13
C5
C19
C18

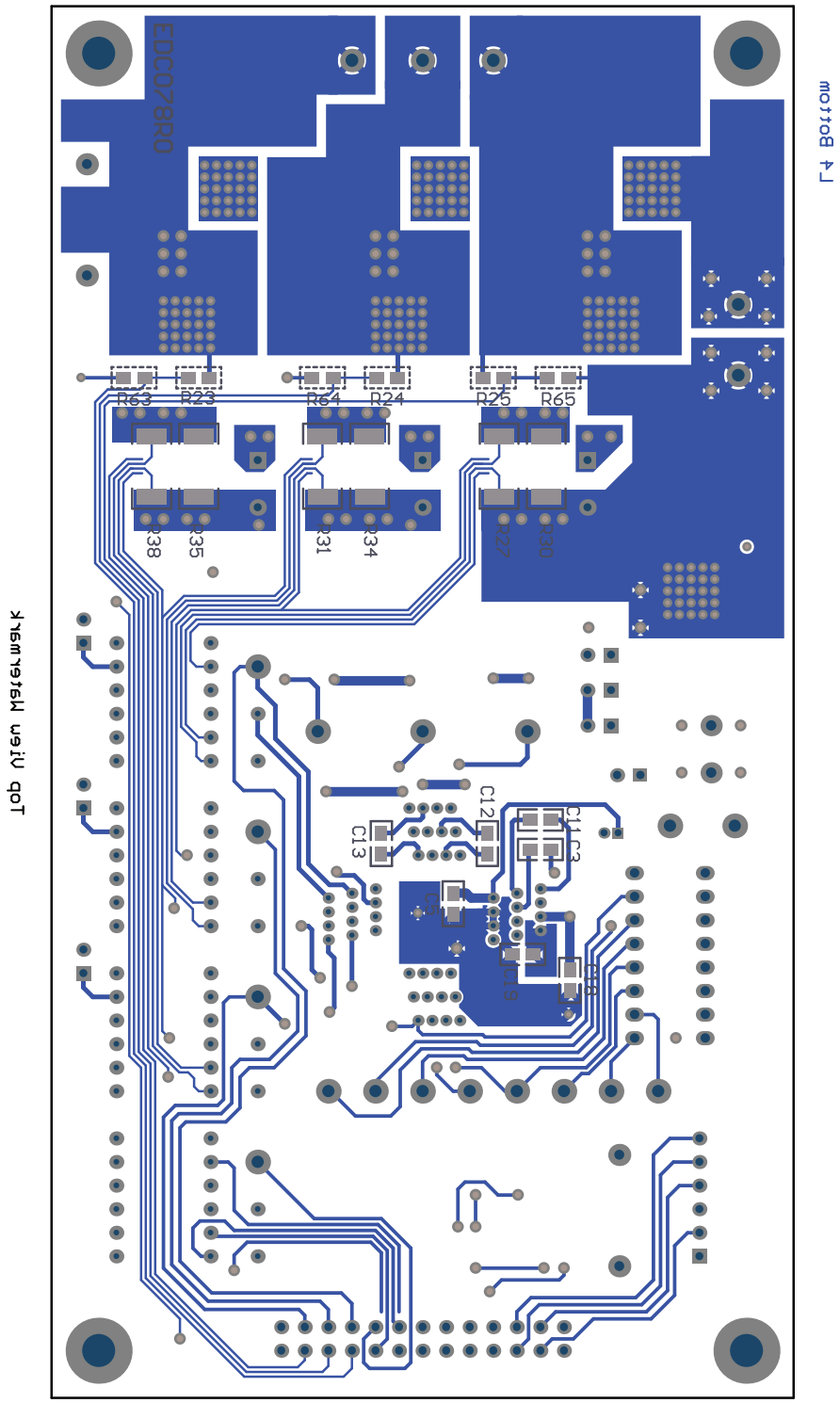

L1 Top
L4 Bottom
Top View Watermark
A4910 Demo Rev0
Allegro MicroSystems Inc
GND
STRN
NC
SCK
SDI
SDO
SPI
RST
CST
AHI
ALO
BHI
BLO
CHI
CLO
VDD
VBAT
Pin1 Black


L1 Top
Top View Watermark
A4910 Demo Rev0
Allegro MicroSystems Inc
Pin1 Black
GND
STRN
NC
SCK
SDI
SDO
SPI
RST
CST
AHI
ALO
BHI
BLO
CHI
CLO
VDD
GND
VBAT
GND


Top View Watermark
L2 (inner) PGND


Top View Watermark
L3 (inner) VDD / VBAT


Top View Watermark
L4 Bottom


EDC078R0
R63
R23
R64
R24
R25
R65
R38
R35
R31
R34
R27
R30
C12
C11
C3
C13
C10
C9
C8
C18
C19
Top Mirrored
Bottom

BILL OF MATERIALS

Designator	Skt	Value	Rating	Footprint	Description	Assy	Qty	RS #	Farnell #
C1	\	10u	16V	TH : 6.3mm Dia, 2.5mm Pitch	Capacitor : Alu Electrolytic, Radial	\	1	684-2119	\
C2	\	10u	25V	SM : B Case	Capacitor : Alu Electrolytic	\	1	**568-711**	**1539481**
C3	\	470n	50V	SM : 0805	Capacitor : Ceramic Chip, X7R	\	1	723-6118	\
C4	\	10u	25V	TH : 4mm Dia, 1.5mm Pitch	Capacitor : Alu Electrolytic, Radial	\	1	475-8848	\
C5, C8, C9, C10, C18	\	100n	50V	SM : 0805	Capacitor : Ceramic Chip, X7R	\	5	264-4416	\
C6, C7, C20	\	1000u	50V	TH : 12.5mm Dia, 5mm Pitch	Capacitor : Alu Electrolytic, Radial	\	3	365-4329	\
C11, C12, C13	\	220n	25V	SM : 0805	Capacitor : Ceramic Chip, X7R	\	3	723-6114	\
C14, C15, C16, C17	Yes	1n	25V	TH : 200mils Pitch	Capacitor : Dipped Ceramic, X7R	\	4	537-3757	\
C19, C21	\	100n	16V	SM : 0805	Capacitor : Ceramic Chip, X7R	\	2	264-4416	\
D2	\	BAT54	\	SM : SOT23	Diode : Schottky, 30V, 0.2A	\	1	**436-7818**	\
G1, G2	\	\	\	TH : 12mm Pitch, 20swg	Ground Bar : Tinned Copper Wire	\	2	355-063	\
IC1 (socket)	\	7007-048-1-07C	\	TH : Proprietry 48 Pin	Socket : LQFP48, Mfg WellsCTi	\	1	\	\
IC1 (device)	\	A4910KJP	\	SM : eLQFP48	Device : Allegro Motor Driver	DNF	0	\	\
J1, J2, J3, J4, J6, J7	\	\	\	TH : SIL2, 2.54mm Pitch, 1x2	Jumper Header : Male 2-pin	\	6	251-8086	\
PCB	\	EDC078R0	\	FR4, 2oz Cu, 4 Layer	PCB : A4910 Demonstration Board	\	1	\	\
Q1, Q2, Q3, Q4, Q5, Q6	\	IRFR2405	\	SM : TO-252, DPAK	Mosfet : N Channel, 56A, 55V	\	6	**543-2222**	\
R1, R8, R57, R58, R59, R60	\	470K	\	SM : 0805	Resistor : Ceramic Chip, 1%	\	6	223-0786	\
R2	Yes	0R	\	TH : Axial	Resistor : Axial, 1%	\	1	188-374	\
R3, R4, R5, R6, R7, R10, R11, R13, R14, R15, R17, R18, R20, R28	\	1K	\	SM : 0805	Resistor : Ceramic Chip, 1%	\	14	223-0427	\
R9, R12, R16, R19, R21, R22	\	100R	\	SM : 0805	Resistor : Ceramic Chip, 1%	\	6	223-0297	\
R23, R24, R25, R26	\	100K	\	SM : 0805	Resistor : Ceramic Chip, 1%	DNF	0	223-0691	\
R27, R30, R31, R34, R35, R38	\	0R010	\	SM : 2512	Resistor : Ceramic Chip, 1%	\	6	720-3253	\
R29, R33	Yes	3K9	\	TH : Axial	Resistor : Axial, 1%	DNF	0	148-641	\
R32, R40, R46, R52	Yes	75k	\	TH : Axial	Resistor : Axial, 1%	\	4	148-944	\
R36, R37, R43, R44, R49, R50, R55, R56	Yes	10K	\	TH : Axial	Resistor : Axial, 1%	\	8	148-736	\
R39, R42, R45, R48, R51, R54	Yes	3k9	\	TH : Axial	Resistor : Axial, 1%	\	6	148-641	\
R41, R47, R53	Yes	82k	\	TH : Axial	Resistor : Axial, 1%	\	3	148-950	\
R62, R63, R64, R65	\	10K	\	SM : 0805	Resistor : Ceramic Chip, 1%	DNF	0	223-0562	\
S1	\	\	\	TH : 2.54mm (100mils) Pitch	Switch : DIL, 8-way	\	1	690-3576	9479082
TP3, TP4, TP11, TP12, TP18, TP19, TP20, TP21, TP22, TP23, TP26, TP29, TP32, TP35, TP36, TP41, TP46	\	\	\	TH : 1.33mm Dia Hole	Test Point : Terminal, 1.3mm, Red	\	17	262-2220	\
U1	\	LM2936DT-5.0	\	SM : DPAK	Voltage Regulator : 5V	\	1	**568-711**	**1286864**
X1	\	\	\	TH : 7.62mm (300mils) Pitch	Screw Terminal : 3-way	\	1	189-5972	\
X2	\	\	\	TH : 7.62mm (300mils) Pitch	Screw Terminal : 2-way	\	1	189-5966	\
X3	\	\	\	TH : 5.08mm (200mils) Pitch	Screw Terminal : 2-way	\	1	425-8720	\
X4	\	\	\	TH : 2.54mm Pitch, 2x13	Connector : IDC 26-way Male Header	\	1	542-8835	9838287
X5	\	\	\	TH : SIL6, 2.54mm Pitch, 1x6	Connector : 6-way Male Header	\	1	360-6308	9733337
\	\	\	\	SM : 9.5mm Dia	Mount : Rubber Foot	\	4	\	1165068
@Jx	\	\	\	\	Link : Jumper Short, Red	\	6	251-8531	\
@Rx / Cx	\	\	\	TH : SIL1	Socket : 1-way	\	56	267-7416	\
\	\	\	\	\	ESD bag : 152x254mm (6x10")	\	1	182-8821	\

Revision History

Number	Date	Description
–	September 7, 2016	Initial release

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