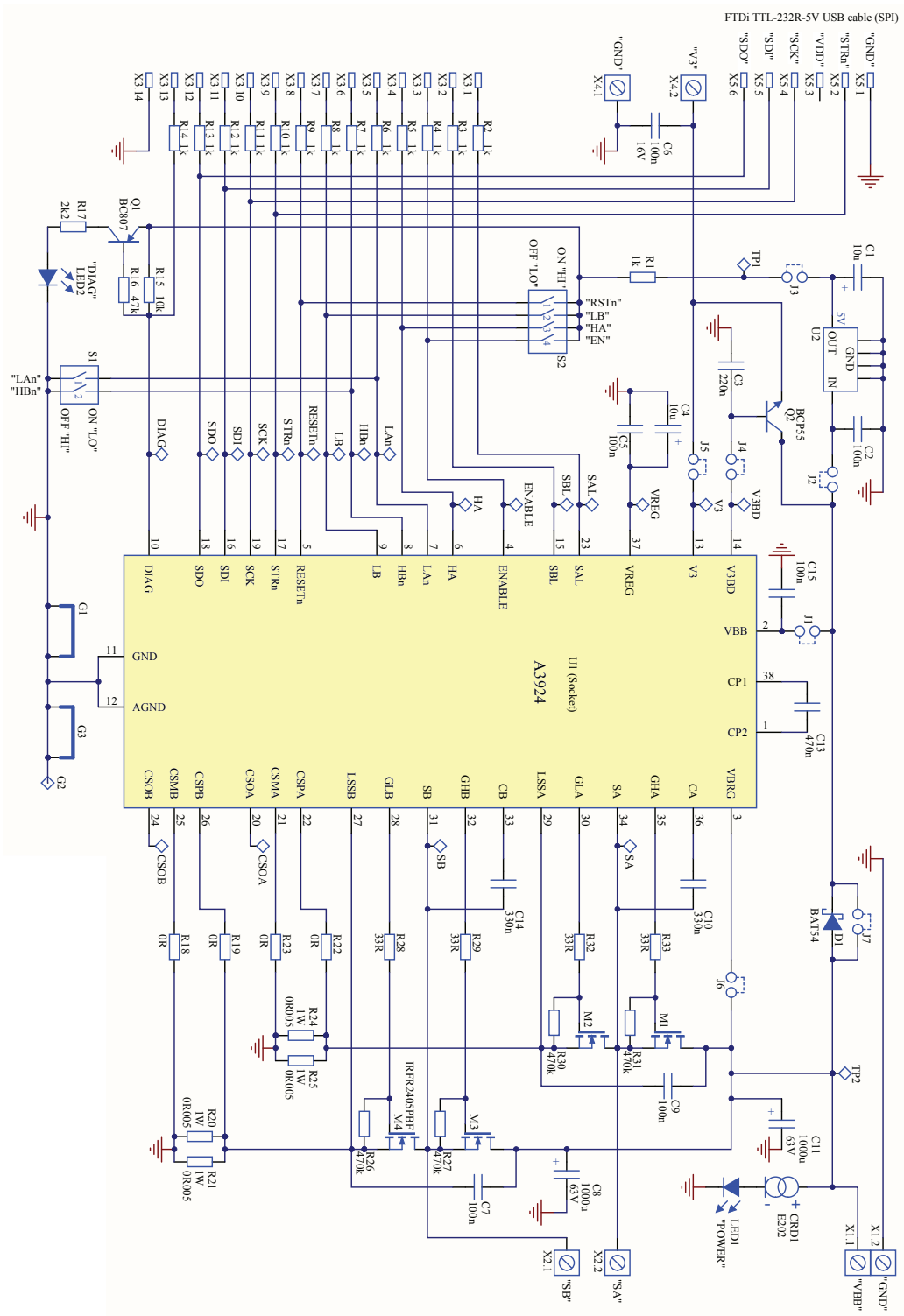
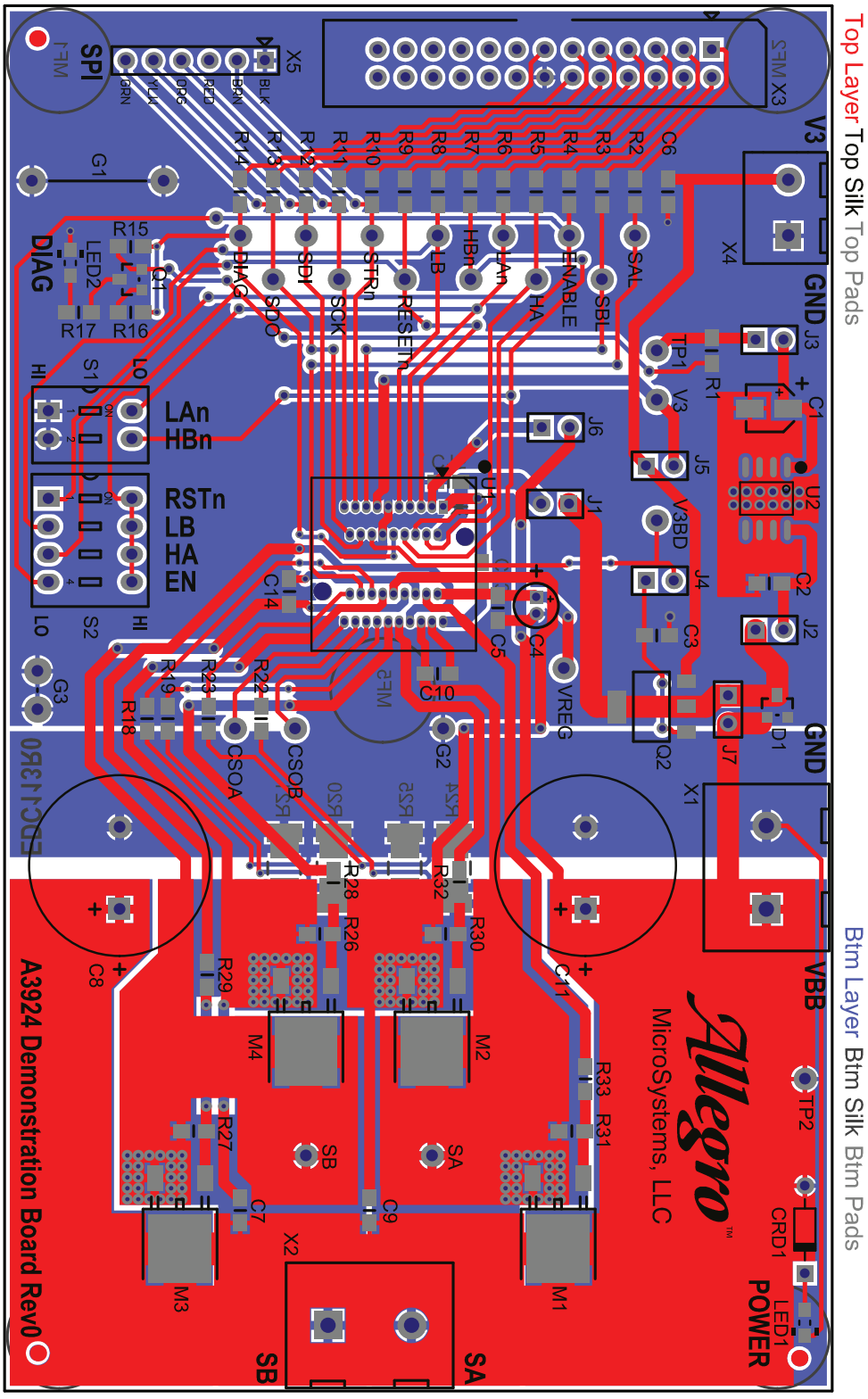
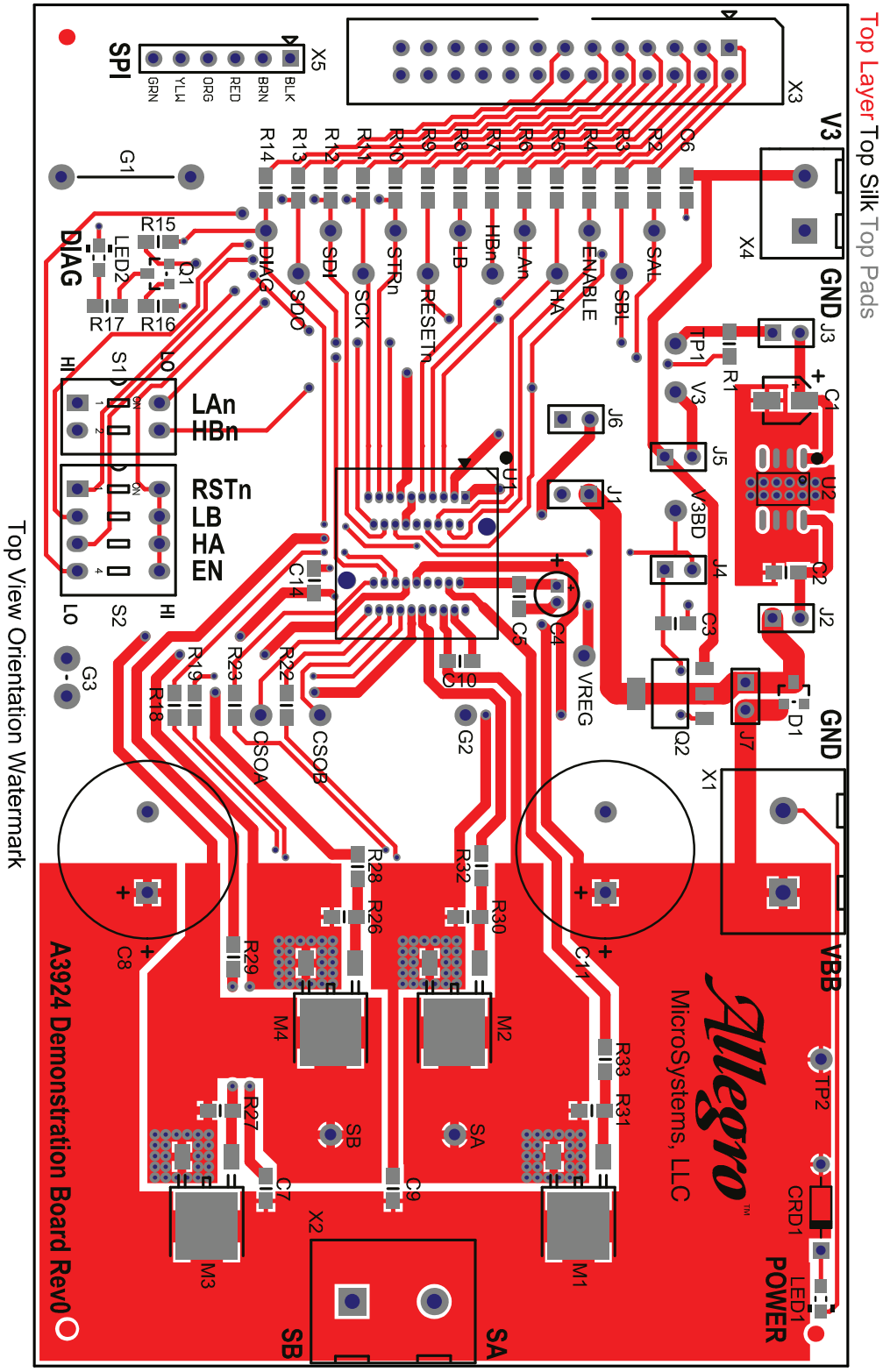
Demo Board Schematic/Layout

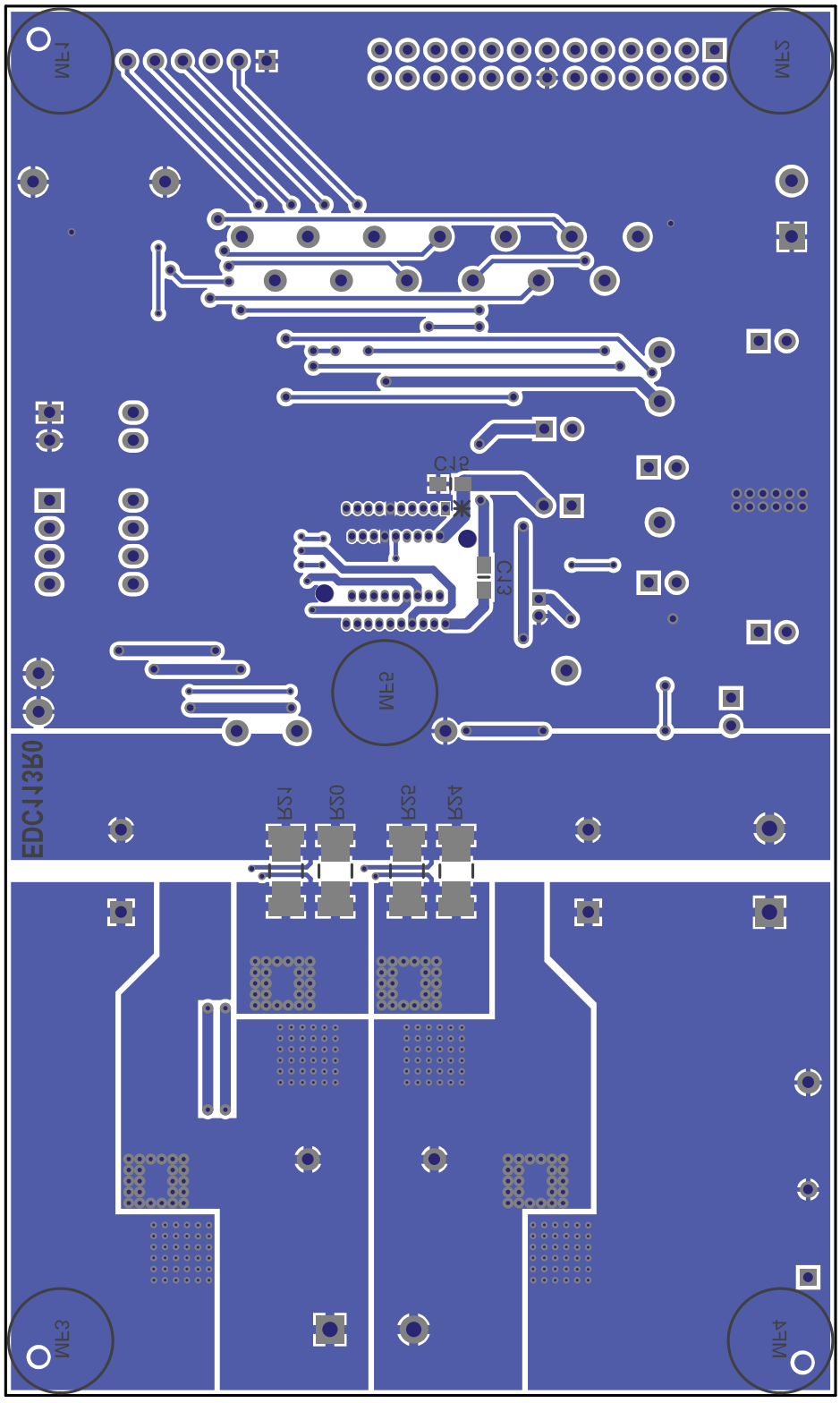
SCHEMATIC

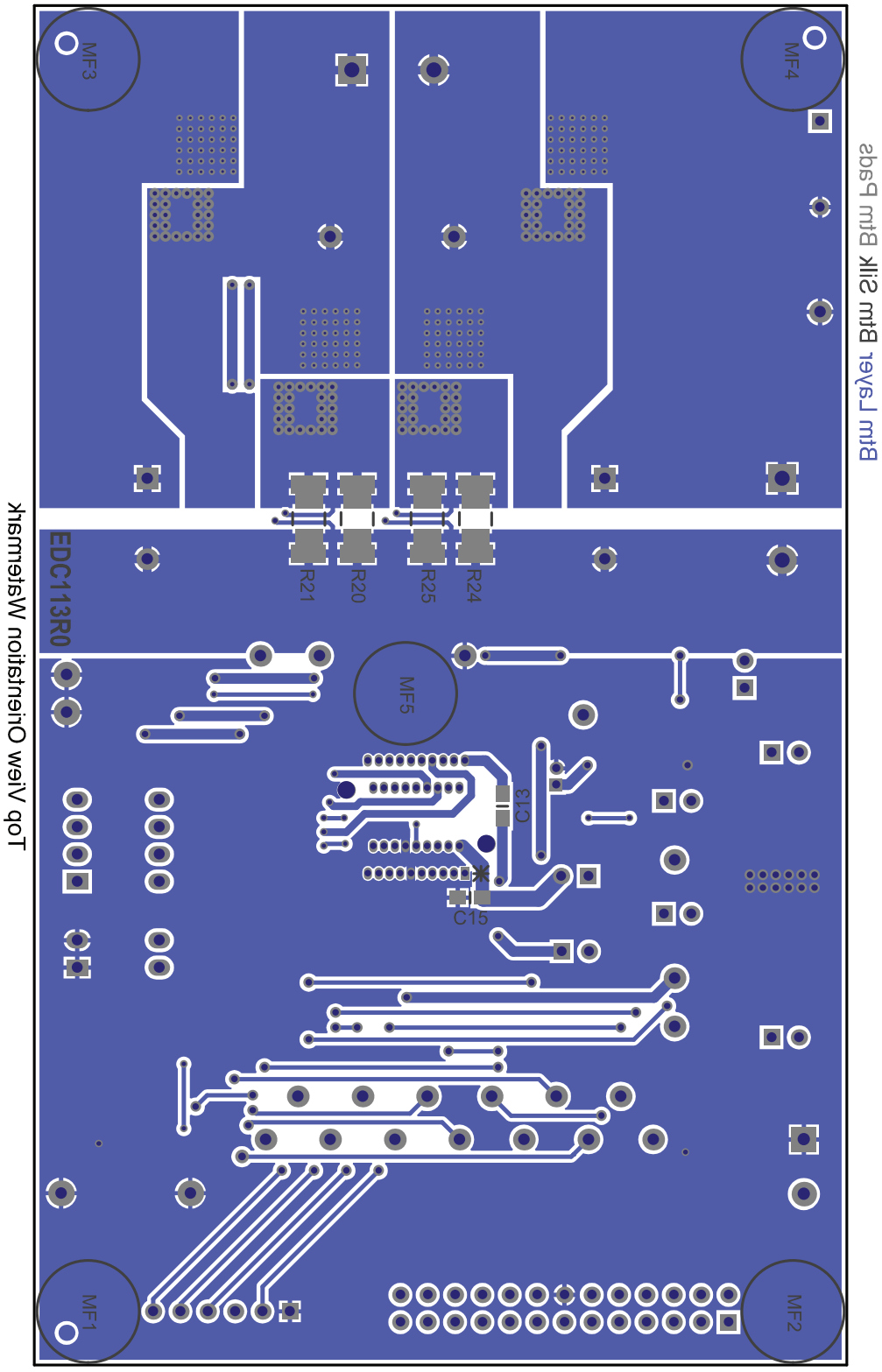


LAYOUT


Top Layer Top Silk Top Pads
Top View Orientation Watermark
Btm Layer Btm Silk Btm Pads
A3924 Demonstration Board Rev0
MicroSystems, LLC
SPI
DIAG
LAn
HBn
RSTn
LB
HA
EN
V3
GND
VBB
POWER
SA
SB


Top Layer Top Silk Top Pads
Top View Orientation Watermark
A3924 Demonstration Board Rev0
MicroSystems, LLC
SPI
DIAG
LAn
HBn
RSTn
LB
HA
EN
V3
GND
VBB
POWER
SA
SB
VREG
CSOA
CSOB


Top View Orientation Watermark
Btm Layer Btm Silk Btm Pads


Top View Orientation Watermark
Btm Layer Btm Silk Btm Pads
EDC113R0
MF1
MF2
MF3
MF4
MF5
R21
R20
R25
R24
C13
C15

BILL OF MATERIALS

Designator	Value	Min Rating	Tol	Part Number	Footprint	Description	RS #1	Farnell #1
C1	10u	25V	20%	EEEFP1E100AR	SM : Case B	Capacitor : Alu Electrolytic SMT	568-711	1539481
C2, C7, C9, C15	100n	63V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	698-3361	1740681
C3	220n	16V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	723-6114	\
C4	10u	25V	20%	\	TH : 4mm Dia, 1.5mm Pitch	Capacitor : Alu Electrolytic Radial	707-5676	9452486
C5	100n	25V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	264-4416	2070445
C6	100n	16V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	264-4416	2070445
C8, C11	1000u	63V	20%	\	TH : 16mm D, 25mm H, 7.5mm P	Capacitor : Alu Electrolytic Radial	684-2087	1834177
C10, C14	330n	25V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	766-1059	1828951
C13	470n	25V	X7R	\	SM : 0805	Capacitor : Ceramic Chip	723-6118	\
CRD1	\	\	\	E202	TH : 1.8x3.9mm Body	Diode : Current Regulation, 100V, 2mA	RapidOnline 47-2602	
CSOA, CSOB, DIAG, ENABLE, HA, HBn, LAn, LB, RESETn, SA, SAL, SB, SBL, SCK, SDI, SDO, STRn, TP1, TP2, V3, V3BD, VREG	\	\	\	\	TH : 1mm Dia Hole	Test Point : Test Terminal, 1mm, Red	262-2185	8731144
D1	\	\	\	BAT54	SM : SOT23	Diode : Schottky, 30V, 0.2A	436-7818	1081190
G1	\	\	\	\	TH : 12mm Pitch, 20swg	Ground Bar : Tinned Copper Wire	355-063	\
G2	\	\	\	\	TH : 1mm Dia Hole	Test Point : Test Terminal, 1mm, Black	262-2179	8731128
G3	\	\	\	\	TH : 3.5mm Pitch, 20swg	Ground Bar : Tinned Copper Wire	355-063	\
J1, J2, J3, J4, J5, J6, J7	\	\	\	\	TH : SIL2, 2.54mm Pitch, 1x2	Jumper Header : Male 2-pin	251-8086	\
LED1, LED2	\	\	\	SML-211UT	SM : Proprietary 0805	LED : Chipled, 2pin, Red	700-7907	1685056
M1, M2, M3, M4	\	\	\	IRFR2405PBF	SM : TO-252 (DPAK)	Mosfet : N Channel, 56A, 55V	543-2222	8649723
MF1, MF2, MF3, MF4, MF5	\	\	\	\	SM : 9.5-10.2mm Dia, 3.3-3.8mm H	Mount : Rubber Foot	104-1721	1165068
PCB	\	\	\	EDC113R0	FR4, 2oz Cu, 2 Layer	PCB : A3924 Demo Board	\	\
Q1	\	\	\	BC807	SM : SOT23	Transistor : PNP, 45V, 0.5A	436-7896	1081221
Q2	\	\	\	BCP55	SM : SOT223	Transistor : NPN, 60V, 1.5A	484-5144	8734852
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14	1k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0427	2078954
R15	10k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	740-8975	2073607
R16	47k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0641	\
R17	2k2	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0477	\
R18, R19, R22, R23	0R	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0146	2057661
R20, R21, R24, R25	0R005	1W	1%	\	SM : 1206 or 1210 or 2010 or 2512	Resistor : Ceramic Chip	567-039	2332287
R26, R27, R30, R31	470k	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0786	2074471
R28, R29, R32, R33	33R	0.125W	1%	\	SM : 0805	Resistor : Ceramic Chip	223-0225	9237305
S1	\	\	\	\	TH : 2.54mm (100mils) Pitch	Switch : DIL, 2-way, Raised Actuator	\	9479031
S2	\	\	\	\	TH : 2.54mm (100mils) Pitch	Switch : DIL, 4-way, Raised Actuator	690-3567	9479040
U1 (Device)	\	\	\	A3924	SM : eTSSOP38	Device : Allegro Motor Driver	\	\
U1 (Socket)	\	\	\	656J0382212	TH : TSSOP38 skt	Socket : Sensata (TSSOP38)	\	\
U2	\	\	\	LM2936HVMA-5.0	SM : SOIC8	Device : Voltage Regulator 5V (Vin <60V)	535-8843	7614240
X1, X2	\	\	\	\	TH : 7.62mm (300mils) Pitch	Screw Terminal : 2-way	189-5966	1793006
X3	\	\	\	\	TH : 2.54mm Pitch, 2x13	Connector : IDC 26-way Ribbon Header	542-8835	9838287
X4	\	\	\	\	TH : 5.08mm (200mils) Pitch	Screw Terminal : 2-way	425-8720	1131855
X5	\	\	\	\	TH : 2.54mm Pitch, 1x6, SIL6	Connector : 6-way Header Unshrouded	360-6308	9733337
[ESDBAG_6x10]	\	\	\	\	\	ESD Bag : 152x254mm (6x10")	182-8821	168488
[JMP_SHORT_R]	\	\	\	\	\	Jumper Short/Shunt Link : Red	251-8531	150411

Revision History

Number	Date	Description
–	September 13, 2016	Initial release

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