

Board Name	TSW1400 Rev D
Due Date	06/22/2012
QTY	50
JOB NUMBER	117260
CUST. CONTACT	Jim Seton
KS ID	12546

- NO DEVICE MARKINGS
- CUST PROVIDED
- DNI
- SPECIAL INSTRUCTIONS
- TBD

<input checked="" type="checkbox"/> LEAD FREE PROCESS	<input checked="" type="checkbox"/> USE CUSTOMER PARTS	<input type="checkbox"/> FOLLOW CUST INSTRUCTION
<input type="checkbox"/> UNMARKED ACTIVE PARTS	<input type="checkbox"/> RETURN BARE BOARDS	<input checked="" type="checkbox"/> INSTALL HARDWARE
<input checked="" type="checkbox"/> SPECIAL INSTRUCTIONS	<input type="checkbox"/> RETURN CUSTOMER PARTS	<input checked="" type="checkbox"/> KS KITTED JOB

CERAMIC CAPACITORS

STD	0201	0402	0603	0805	1206	1210	mils
EIA	0603	1005	1608	2012	3216	3225	mm

TANTALUM CAPACITORS

STD	TANT_A	TANT_B	TANT_C	TANT_D	TANT_E	TANT_E	TANT_R	TANT_Z	mils
EIA	3.2x1.6	3.5x2.8	6.0x3.2	7.3x4.3	7.2x6.0	7.3x4.3	2.0x1.2	2.0x1.25	mm

SAME FOOTPRINT, VARIABLE HEIGHT

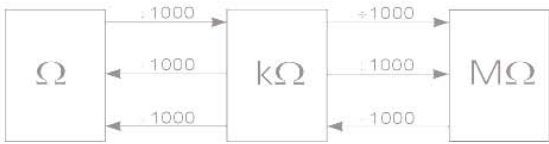
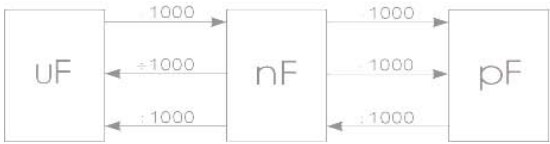
TANT_A & TANT_P

TANT_B & TANT_T

TANT_D,E,V, & X

SOLID TANTALUM CHIP CAPACITORS (ORANGE)

CASE	A	B	C	G	H	D	M	R
mm	3.7x1.8	4.0x2.8	7.1x3.2	5.2x3.65	5.2x4.6	7.5x4.3	3.3x2.7	7.2x6.0



CAPACITORS CONVERSION EXAMPLE

uF	nF	pF
0.001	1	1000
0.022	22	22000

RESISTORS CONVERSION EXAMPLE

Ω	kΩ	MΩ
1000	1k	0.001M
47000	47k	0.047M

NOTES & INSTRUCTIONS

Use Heatsink clip provided , do not use glue

Fan wire swap to RED-BLACK-WHITE see attached picture

See Assembly drawing for shunt locations

Add plastic spacer for the Banana Jacks

Place KS part 21184 on J6

For C87 LED cathode will go ground

For maximum clearance underneath install J9 & J10 as shown in the picture

Master Copy

REVIEWED
By Vaishali at 12:48 pm, Jun 18, 2012

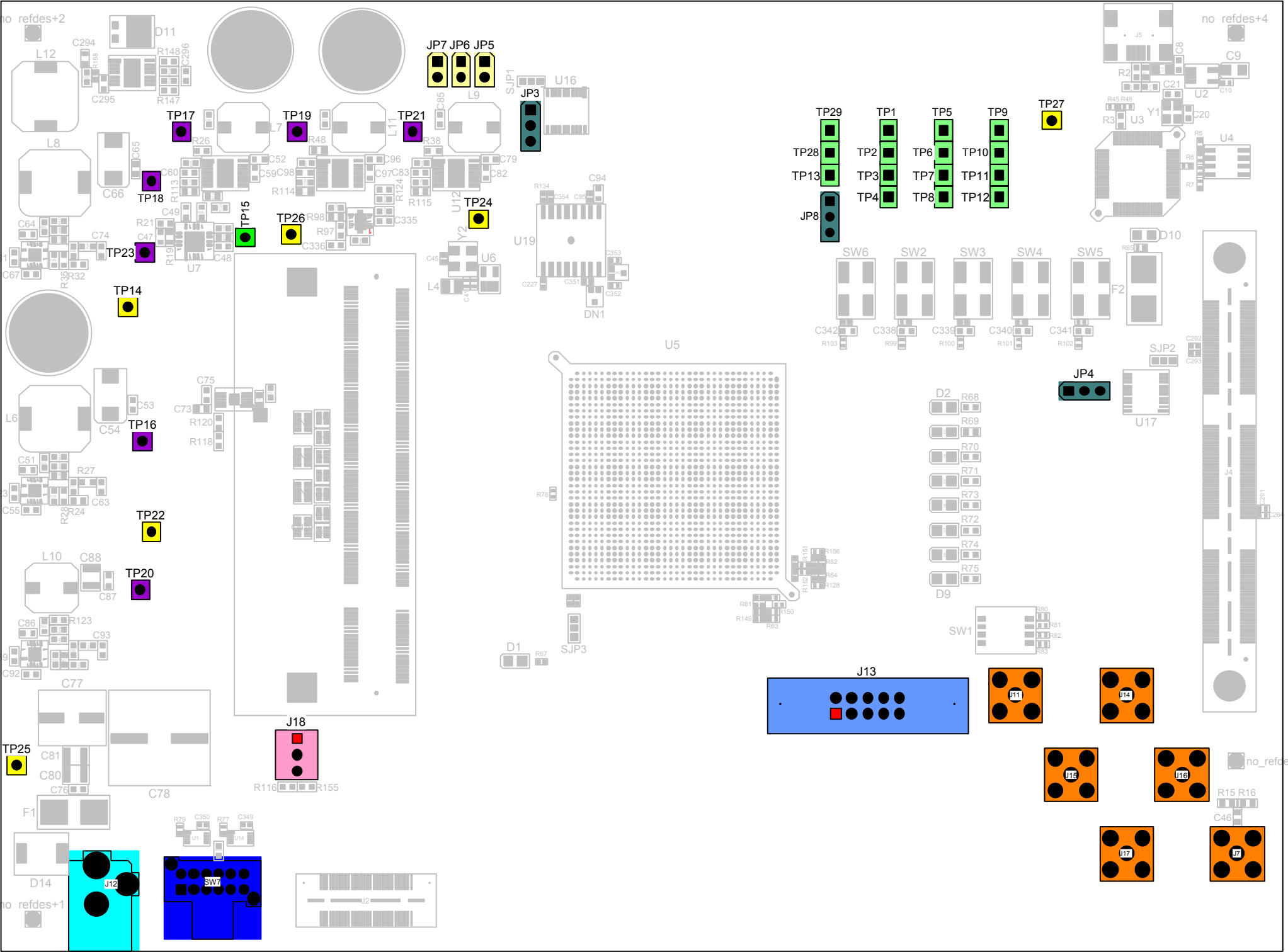
Date	01/27/2012	2/23/2012	03/14/2012	04/04/2012	06/18/2012
KS Revision No	1.1	1.1	1.1	1.1	1.1

LINE NO.	KS PART NUMBER	CUSTOMER PART NUMBER	QTY	VALUE	DESIGNATORS	PKG/ CASE	T.COEFF/ PWR	TOL	VOLT RATED	DESCRIPTION	DISTRIBUTOR	DIST P/N	MANUFACTURER	MNFR. PART #	LOT NO
1	11227	A 1	45	0.022μF	C179, C180, C181, C182, C183, C184, C185, C187, C188, C190, C191, C192, C193, C194, C195, C196, C205, C206, C207, C208, C209, C210, C211, C212, C213, C214, C215, C216, C217, C219, C220, C221, C222, C223, C225, C226, C228, C229, C230, C231, C232, C260, C261, C262, C263	0201	X5R	10	6.3V	Capacitors	Venkel	C0201X5R6R3-223KNP	Venkel	C0201X5R6R3-223KNP	104769315
2	18461	A 1	96	0.1μF	C103, C104, C105, C106, C107, C108, C110, C111, C112, C113, C118, C119, C120, C121, C122, C123, C125, C126, C127, C128, C129, C130, C131, C132, C133, C135, C136, C137, C138, C140, C141, C143, C157, C158, C159, C160, C161, C162, C164, C165, C186, C189, C218, C224, C233, C234, C235, C236, C237, C238, C239, C240, C241, C242, C243, C244, C245, C246, C247, C248, C249, C250, C251, C252, C253, C254, C255, C257, C258, C259, C265, C266, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C280, C281, C282, C283, C284, C285, C286, C287, C288, C289, C290	0201	X5R	10	10V	Capacitors	Mouser	81-GRM033R61A104KE5D	Taiyo Yuden	LMK063BJ104KP-F	K10000030770
3	11116	B 1	1	0.01μF	C10	0402	X7R	10	50V	Capacitors	Digi-Key	490-4516-2-ND	Murata Electronics North Am	GRM155R71H103KA88D	K10000031385
4	12420	B 3 / B 10	23	0.1μF	C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C41, C45, C95, C227, C264, C291, C292, C293, C349, C350	0402	X7R	10	16V	Capacitors	Digi-Key	445-4952-2-ND	Tdk Corporation	C1005X7R1C104K	K10000030219
5	11321	B 2	5	0.47μF	C39, C115, C116, C197, C198	0402	X5R	10	10V	Capacitors	Mouser	81-GRM155R61A474KE5D	Murata Electronics North Am	GRM155R61A474KE15D	IA8818ES3 PTZ52
6	12900	B 4	8	1.0μF	C38, C40, C199, C200, C201, C202, C203, C204	0402	X5R	10	10V	Capacitors	Digi-Key	587-1454-2-ND	Taiyo Yuden	LMK105BJ105KV-F	K10000023248
7	11478	B 2	4	10pF	C351, C352, C353, C354	0402	C0G	5	50V	Capacitors	Digi-Key	311-1014-2-ND	Yageo America	CC0402JRNPO9BN100	K10000020285
8	23005	B 12	3	2.2μF	C328, C329, C330	0402	X5R	10	10V	Capacitors	Digi-Key	445-7392-2-ND	Murata Electronics North Am	C1005X5R1A225K	K10000030326
9	11652	C 3	1	0.022μF	C93	0603	X7R	10	100V	Capacitors	Digi-Key	GRM188R72A223KAC4D	Murata Electronics North Am	GRM188R72A223KAC4D	K10000028062
10	20387	C 14	1	0.027μF	C296	0603	X7R	10	50V	Capacitors	Digi-Key	478-1232-1-ND	Avx Corporation	06035C273KAT2A	K10000022059
11	11301	C 2/C 10 /COF	28	0.1μF	C1, C5, C13, C14, C15, C16, C17, C18, C19, C46, C49, C51, C53, C59, C61, C64, C65, C75, C82, C84, C86, C97, C99, C339, C340, C341, C342, C338	0603	X7R	10	50V	Capacitors	Digi-Key	490-1519-2-ND	Murata Electronics North Am	GRM188R71H104KA93D	K10000032229
13	11068	C 1/C 10	10	1.0μF	C47, C48, C50, C60, C76, C83, C98, C294, C334, C335	0603	X7R	10	16V	Capacitors	Digi-Key	445-1604-2-ND	Tdk Corporation	C1608X7R1C105K	K10000031620
14	11208	C 1/C 12	23	10μF	C3, C8, C52, C55, C56, C67, C68, C79, C96, C102, C117, C124, C139, C149, C150, C151, C152, C153, C154, C155, C163, C295, C336	0603	X5R	20	6.3V	Capacitors	Digi-Key	445-4112-2-ND	Panasonic	ECJ-1VB0J106M	K10000031814
15	11006	C 1	1	1200pF	C90	0603	X7R	10	100V	Capacitors	Digi-Key	490-1474-2-ND	Murata Electronics North Am	GRM188R72A122KA01D	IA5031E10 PT206
16	11230	C 1	2	1500pF	C63, C74	0603	X7R	10	100V	Capacitors	Venkel	C0603X7R101-152KNE	Venkel	C0603X7R101-152KNE	AS34T7L
17	23382	C 15	3	18000PF	C58, C70, C91	0603	X7R	10	50V	Capacitors	Digi-Key	490-1516-2-ND	Panasonic	GRM188R71H183KA01D	K10000030841
18	12509	C 4	4	2.2μF	C37, C94, C134, C156	0603	X7R	10	10V	Capacitors	Digi-Key	445-5958-2-ND	Murata Electronics North Am	GRM188R71A225KE15D	K10000031626
19	16585	C 9 / C 15	9	22μF	C62, C71, C72, C85, C100, C331, C332, C333, C92	0603	X5R	20	4V	Capacitors	Onlinecomponents	AMK107BJ226MA-T	Taiyo Yuden	AMK107BJ226MA-T	K10000030811
21	19292	C 12	2	27pF	C20, C21	0603	C0G	5	250V	Capacitors	Digi-Key	490-4863-1-ND	Murata Electronics North Am	ERB1885C2E270JDX5D	K10000018160

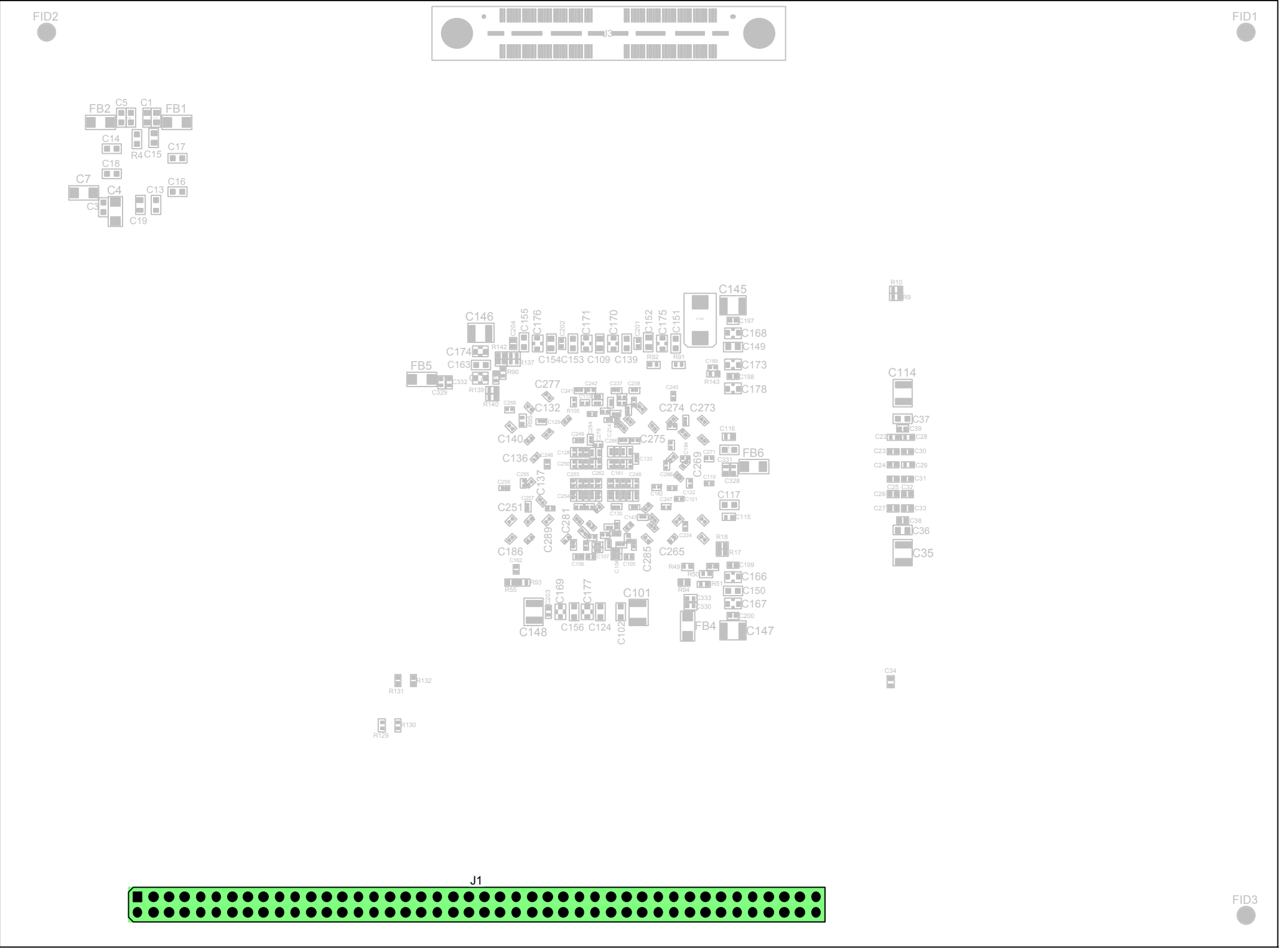
LINE NO.	KS PART NUMBER	CUSTOMER PART NUMBER	QTY	VALUE	DESIGNATORS	PKG/ CASE	T.COEFF/ PWR	TOL	VOLT RATED	DESCRIPTION	DISTRIBUTOR	DIST P/N	MANUFACTURER	MNFR. PART #	LOT NO
22	11737	C 3 / C 12	2	330pF	C57, C69	0603	C0G	5	100V	Capacitors	Mouser	810-C1608C0G2A331J	Tdk Corporation	C1608C0G2A331J	K10000028906
23	11975	C 4	1	4.7pF	C355	0603	C0G	5	100V	Capacitors	Venkel	C0603COG101-4R7JNE	Venkel	C0603COG101-4R7JNE	ASACTAY
24	17214	C 9/CORNER	5	4.7µF	C2, C6, C36, C73, C109	0603	X5R	10	10V	Capacitors	Digi-Key	445-5170-2-ND	Kemet	C0603C475K8PACTU	K10000030809
25	19361	C 15	6	10000pF - X2Y	C173, C174, C175, C176, C177, C178	0603 - 4	X7R	20	50V	Capacitors	Digi-Key	709-1008-1-ND	Johanson Dielectrics Inc	500X14W103MV4T	K10000030839
26	19359	C 12	5	0.1µF - X2Y	C166, C167, C168, C169, C170	0603 - 4 Termination	X7R	20	10V	Capacitors	Digi-Key	709-1101-1-ND	Johanson Dielectrics Inc	100X14W104MV4T	K10000030417
27	19360	C 12	2	0.22µF - X2Y	C171, C172	0603 - 4 Termination	X5R	20	16V	Capacitors	Digi-Key	709-1331-1-ND	Johanson Dielectrics Inc	160X14X224MV4T	K10000018505
28	12451	E 2	2	100µF	C4, C7	1206	X5R	20	6.3V	Capacitors	Mouser	80-C1206C107M9P	Venkel	C1206X5R6R3-107MNE	K10000026659
29	22352	F 6	6	100µF	C35, C88, C145, C146, C147, C148	1210	X5R	20	6.3V	Capacitors	Tti	GRM32ER60J107ME20L	Murata Electronics North Am	GRM32ER60J107ME20L	K10000028140
30	11274	F 1	2	10µF	C80, C81	1210	X7R	20	16V	Capacitors	Venkel	C1210X7R160-106MNE	Venkel	C1210X7R160-106MNE	KT7MK3A
31	13036	F 2 / F 4	2	22µF	C101, C114	1210	X7R	10	16V	Capacitors	Digi-Key	490-4524-2-ND	Murata Electronics North Am	GRM32ER71C226KE18L	K10000026752
32	13112	H 4	1	4.7µF	C9	3216-18 (EIA)	125°C	20	25V	Capacitors	Digi-Key	399-4630-2-ND	Kemet	T491A475M025AT	K10000024185
33	19358	H 9	1	330µF	C144	7343-15 (EIA)		20	6.3V	Capacitors	Digi-Key	399-4052-2-ND	Kemet	T520D337M006ATE015	K10000031991
34	19319	H 9	2	470µF	C54, C66	7343-43 (EIA)	125°C	10	10V	Capacitors	Digi-Key	495-1537-2-ND	Kemet	B45197A2477K509	K10000018500
35	19318	I 2	1	680µF	C78	D12.5 H13.5	105°C	20	35V	Capacitors	Digi-Key	PCE3465CT-ND	Panasonic - Ecg	EEV-FK1V681Q	K10000030852
36	19357	H 9	1	47µF	C77	D8 H6.2	105°C	20	35V	Capacitors	Digi-Key	PCE4247CT-ND	Panasonic - Ecg	EEE-HA1V470UP	K10000030436
37	12715	L 1	4	100	R54, R56, R104, R105	0201	1/20W	1		Resistors	Digi-Key	P100ABTR-ND	Panasonic - Ecg	ERJ-1GEF1000C	7062401101
38	11074	M 1	20	0.0 (Zero Ohm)	R61, R62, R63, R64, R67, R89, R90, R95,R99, R100, R101, R102,R137, R140, R142, R143, R149,R150,R151,R152	0402	1/10W	5		Resistors	Digi-Key	311-0.0JRTR-ND	Panasonic - Ecg	ERJ-2GE0R00X	K10000031387
39	11175	M 2	14	1.00K	R52, R55, R65, R80, R81, R82, R83, R85, R86, R87, R103, R144, R158, R133	0402	1/16W	1		Resistors	Digi-Key	541-1.00KLTR-ND	Vishay/Dale	CRCW04021K00FKED	K10000031757
40	14220	M 14 / M 23	11	10.0K	R5, R6, R7, R9, R10, R45, R50, R51, R53, R91, R92	0402	1/16W	1		Resistors	Digi-Key	311-10.0KLRRTR-ND	Rohm	MCR01MZPF1002	K10000030328
41	11242	M 2	1	100	R76	0402	±100ppm/°C	1	1/16W	Resistors	Digi-Key	311-100LRTR-ND	Panasonic - Ecg	ERJ-2RKF1000X	K10000027674
42	20797	M 23	2	2.00K	R93, R94	0402	1/10W	1	50V	Resistors	Digi-Key	P2.00KLTR-ND	Panasonic - Ecg	ERJ-2RKF2001X	K10000031744
43	11981	M 5	1	2.21K	R8	0402	0.063W	1	50V	Resistors	Digi-Key	311-2.21KLRRTR-ND	Yageo America	RC0402FR-072K21L	K10000024952
44	14344	M 15	1	24.9	R134	0402	1/16W	1		Resistors	Digi-Key	P24.9LTR-ND	Panasonic - Ecg	ERJ-2RKF24R9X	8110731701
45	19742	RDS-RES-3	1	4.70K	R46	0402	1/16W	1		Resistors	Digi-Key	P4.70KLTR-ND	Panasonic - Ecg	ERJ-2RKF4701X	K10000020681
46	11245	M 2	2	4.75K	R77, R79	0402	1/16W	1		Resistors	Digi-Key	P4.75KLTR-ND	Panasonic - Ecg	ERJ-2RKF4751X	K10000020349
47	12256	M 6	2	49.9	R17, R18	0402	1/16W	0.1	75V	Resistors	Mouser	754-RG1005P-49R9-BT5	Susumu Co Ltd	RG1005P-49R9-B-T5	K10000021075
48	23397	M 27	1	680	R49	0402	1/32W	5		Resistors	Digi-Key	P680CLCT-ND	Panasonic - Ecg	ERA-W27J681X	K10000030847
49	11017	N 1	10	0.0 (Zero Ohm)	R115, R116, R117, R118, R119, R121, R122, R123, R124, R154	0603	1/10W	5		Resistors	Digi-Key	311-0.0GRTR-ND	Panasonic - Ecg	ERJ-3GEY0R00V	K10000030468
50	11017-Shunt	N 1	3	0.0 (Zero Ohm)	SJP1, SJP2, SJP3	0603	1/10W	5		Resistors	Digi-Key	311-0.0GRTR-ND	Panasonic - Ecg	ERJ-3GEY0R00V	K10000030468
51	11254	N 2 / N 37	1	1.00K	R3	0603	1/16W	1		Resistors	Digi-Key	311-1.00KHRTR-ND	Yageo America	RC0603FR-071KL	K10000031925
52	18319	N 35	1	1.24K	R24	0603	1/10W	1	50V	Resistors	Digi-Key	P1.24KHTR-ND	Panasonic - Ecg	ERJ-3EKF1241V	0020280902
53	12861	N 17	1	1.27K	R98	0603	1/10W	1	75V	Resistors	Venkel	CR0603-10W-1271FT	Venkel	CR0603-10W-1271FT	671860714
54	23392	N 47	1	1.54K	R41	0603	1/10W	1		Resistors	Digi-Key	P1.54KHTR-ND	Panasonic - Ecg	ERJ-3EKF1541V	K10000030846
55	11336	N 4 / N 44	1	10	R1	0603	±100ppm/°C	1	1/10W	Resistors	Digi-Key	P10.0HTR-ND	Panasonic - Ecg	ERJ-3EKF10R0V	K10000031376
56	12012	N 9 / N 38	14	10.0K	R19, R22, R25, R26, R28, R35, R37, R42, R47, R113, R114, R125, R146, R147	0603	1/10W	1		Resistors	Digi-Key	311-10.0KHRTR-ND	Venkel	CR0603-10W-1002FT	K10000031926
57	11210	N 2 / N 38	2	100	R15, R16	0603	±100ppm/°C	1	1/10W	Resistors	Digi-Key	311-100HRTR-ND	Panasonic - Ecg	ERJ-3EKF1000V	K10000032236
58	11127	N1/N38	4	100K	R20, R23, R31, R39	0603	1/16W	1		Resistors	Digi-Key	311-100KHRTR-ND	Yageo America	RC0603FR-07100KL	K10000032237

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59	11338	N 4	1	12.1K	R4	0603	1/10W	1	50V	Resistors	Digi-Key	P12.1KHTR-ND	Panasonic - Ecg	ERJ-3EKF1212V	K10000020594
60	14300	N 24	1	12.4K	R32	0603	1/10W	1	150V	Resistors	Digi-Key	P12.4KHTR-ND	Panasonic - Ecg	ERJ-3EKF1242V	8100742105
61	23393	N 47	8	165	R68, R69, R70, R71, R72, R73, R74, R75	0603	1/10W	1		Resistors	Digi-Key	P165HTR-ND	Panasonic - Ecg	ERJ-3EKF1650V	K10000030838
62	11332	N 3	2	2.49K	R27, R34	0603	1/10W	1	50V	Resistors	Digi-Key	P2.49KHTR-ND	Panasonic - Ecg	ERJ-3EKF2491V	9040884903
63	13803	N 20	1	21.5K	R40	0603	1/16W	0.5	75V	Resistors	Digi-Key	RR08P21.5KDCT-ND	Susumu Co Ltd	RR0816P-2152-D-33C	K10000020872
64	13586	N 20	1	26.7K	R21	0603	1/10W	1		Resistors	Digi-Key	P26.7KHTR-ND	Panasonic - Ecg	ERJ-3EKF2672V	8050956004
65	19867	N 40	1	3.57K	R97	0603	1/10W	1		Resistors	Digi-Key	P3.57KHTR-ND	Panasonic - Ecg	ERJ-3EKF3571V	K10000020783
66	11345	N 4/N 42	1	30.1K	R48	0603	1/10W	1	50V	Resistors	Digi-Key	311-30.1KHRTR-ND	Yageo America	RC0603FR-0730K1L	K10000025537
67	11336	N 4 / N 44	1	10	R2	0603	±100ppm/°C	1	1/10W	Resistors	Digi-Key	P10.0HTR-ND	Yageo America	ERJ-3EKF10R0V	K10000028099
68	19366	N 38	1	34.0K	R38	0603	1/10W	1		Resistors	Digi-Key	311-34.0KHRTR-ND	Yageo America	RC0603FR-0734KL	K10000018514
69	18798	N 36	1	38.3K	R145	0603	1/10W	1		Resistors	Digi-Key	311-38.3KHRTR-ND	Panasonic - Ecg	ERJ-3EKF3832V	K10000016629
70	11258	N 3	1	4.75K	R120	0603	1/16W	1		Resistors	Mouser	603-RC0603FR-074K75L	Yageo America	RC0603FR-074K75L	K10000029471
71	18380	N 35	1	80.6K	R148	0603	1/10W	1		Resistors	Digi-Key	P80.6KHTR-ND	Panasonic - Ecg	ERJ-3EKF8062V	K10000019539
72	19322	N 39	7	56	RN8, RN9, RN12, RN13, RN18, RN19, RN24	0603 x 4	62.5mW	5		Resistors	Digi-Key	YC124J-56CT-ND	Yageo	YC124-JR-0756RL	K10000018515
73	19320	X 7	4	0.1µF	CN1, CN4, CN7, CN10	0612	X7R	10	16V	Filters	Mouser	581-W3A4YC104KAT2A	Avx Corporation	W3A4YC104KAT2A	K10000018707
74	13589	X 4	1	1000	L3	0805	200mA			Filters	Digi-Key	490-1041-1-ND	Murata Electronics North Am	BLM21AG102SN1D	K10000030242
75	12017	X 2	1	330	L4	0805	2.5A			Filters	Digi-Key	445-1569-1-ND	Tdk Corporation	MPZ2012S331A	K10000026773
76	11214	X 1	5	68	FB1, FB2, FB4, FB5, FB6	1206	3A			Filters	Digi-Key	P10437TR-ND	Panasonic - Ecg	EXC-ML32A680U	K10000024250
77	15684	AE 25	1	B540C	D14	DO-214AB (SMC)	5 A		40V	Discrete Semiconductor Products	Digi-Key	B540C-FDICT-ND	Diodes Inc	B540C-13-F	K10000031997
78	11409	AE 2	2	Dual - Common Cathode	DN1, DN2	SOT-323-3	200mA		30V	Discrete Semiconductor Products	Digi-Key	568-1613-1-ND	Nxp Semiconductors	BAT54CW T/R	K10000001322
79	23388	AE 27	1	SS3P6L-M3/86A	D11	TO-277A (SMPC)	3A		60V	Discrete Semiconductor Products	Digi-Key	SS3P6L-M3/86AGICT-ND	Vishay/General Semiconduct	SS3P6L-M3/86A	K10000030844
80	19317	Y 25	2	1.5µH	L6, L8					Inductors_Coils_Chokes	Coilcraft	MSS1048-152NL	Coilcraft	MSS1048-152NL	K10000030416
81	17742	Y 18	1	10µH	L12	10mm x 10.2 mm x 3.8mm		20		Inductors_Coils_Chokes	Coilcraft	MSS1038-103NL	Coilcraft	MSS1038-103NL	112109T11660R
82	19363	Y 29	4	2.2µH	L7, L9, L10, L11	SMD	4.02A	20		Inductors_Coils_Chokes	Digi-Key	732-1173-1-ND	Wurth Electronics Inc	7447789002	K10000030840
83	12703	Z 3	9	LED - Green Clear	D1, D2, D3, D4, D5, D6, D7, D8, D9	0805	35mcd	20	2V	Optoelectronics	Digi-Key	160-1414-2-ND	Lite-On Inc	LTST-C-170KGKT	K10000024794
84	11986	Z 3	1	LED-Green Diffused	C87	0805	10mA	0.65	2.03V	Optoelectronics	Digi-Key	P11501CT-ND	Panasonic - Ssg	LNJ306G5PUX	K10000030843
85	11986	Z 3	1	LED - Green Diffused	D10	0805	10mA	0.65	2.03V	Optoelectronics	Digi-Key	P11501CT-ND	Panasonic - Ssg	LNJ306G5PUX	K10000030843
86	25205		1	TPS51100DGQ	U11	10-MSOP				Integrated Circuits	Texas Instruments	TPS51100DGQ	Texas Instruments	TPS51100DGQ	K10000031013
87	19181	U 104	1	TPS74701DRC	U18	10-SON	500mA		Adj	Integrated Circuits	Texas Instruments	TPS74701DRCR	Texas Instruments	TPS74701DRC	K10000031020
88	19325	U 152	1	EP4SGX70HF35C3N	U5	1152-FBGA	0°C to +85°C		1.8V	Integrated Circuits	Texas Instruments	EP4SGX70HF35C2N	Altera	EP4SGX70HF35C3N	K10000030938
89	25204		3	TPS54325PWP	U9, U12, U15	14-HTSSOP	3A		Adj	Integrated Circuits	Texas Instruments	TPS54325PWPR	Texas Instruments	TPS54325PWP	K10000031019
90	18289	U 95	3	TPS54620RGY	U8, U10, U13	14-QFN	6A		ADJ	Integrated Circuits	Texas Instruments	TPS54620RGYR	Texas Instruments	TPS54620RGY	K10000031022
91	25206		1	TPS61175PWP	U20	14HTSSOP				Integrated Circuits	Texas Instruments	TPS61175PWPR	Texas Instruments	TPS61175PWP	K10000031021
92	13424	Ebay IC 11	1	EPCS64SI16N	U19	16-SOIC			3.3V	Integrated Circuits	Digi-Key	544-1380-5-ND	Altera	EPCS64SI16N	K10000005788
93	19665	U 117	1	TPS74401RGW	U7	20-HVQFN	3A		Adj	Integrated Circuits	Texas Instruments	TPS74401RGW	Texas Instruments	TPS74401RGW	K10000027604
94	19687	U 116	2	TXB0108PWR	U16, U17	20-TSSOP				Integrated Circuits	Texas Instruments	TXB0108PWR	Texas Instruments	TXB0108PWR	K10000031015
95	19332	U 152	1	FT4232HL	U3	64-LQFP			3.0 V ~ 3.6	Integrated Circuits	Digi-Key	768-1026-1-ND	Parallax	FT4232HL	K10000030849
96	19331	U 112	1	93LC46BT-I/SN	U4	8-SOIC			2.5V ~ 5.5V	Integrated Circuits	Digi-Key	93LC46BT-I/SNCT-ND	Microchip Technology	93LC46BT-I/SN	K10000030446
97	23395		1	SN65LVDS1DBVR	U6	SOT-23-5				Integrated Circuits			Texas Instruments	SN65LVDS1DBVR	K10000031215
98	24251	U 156	1	TPS76933DBVT	U2	SOT-23-5	1A		3.3V	Integrated Circuits	Texas Instruments	TPS76933DBVT	Texas Instruments	TPS76933DBVT	K10000031017
99	25200		2	SN74LVC3G07DCU	U1, U14	VSSOP_8				Integrated Circuits	Texas Instruments	SN74LVC3G07DCU	Texas Instruments	SN74LVC3G07DCU	K10000031016

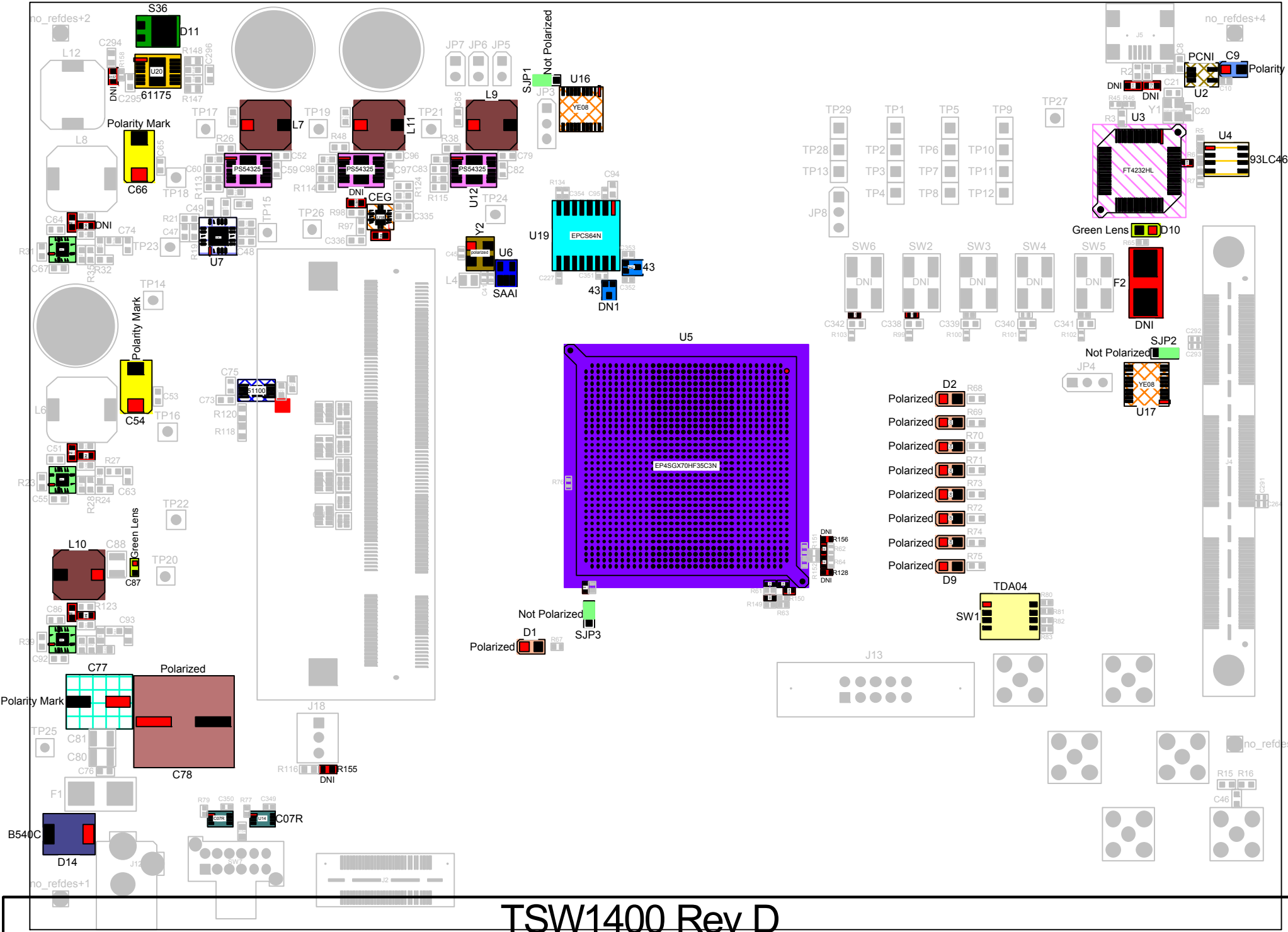
LINE NO.	KS PART NUMBER	CUSTOMER PART NUMBER	QTY	VALUE	DESIGNATORS	PKG/ CASE	T.COEFF/ PWR	TOL	VOLT RATED	DESCRIPTION	DISTRIBUTOR	DIST P/N	MANUFACTURER	MNFR. PART #	LOT NO
100	21184	AL 15	1	DDR2 SDRAM MODULE	PLACE_ON_J6	200pin - SODIMM			1.8V	Memory Cards, Modules	Avnet Electronics	MT8HTF12864HZ-800H1	Micron	MT8HTF12864HZ-800	K10000030748
101	18253	AA 4	1	4A	F1	9.73mm x 5.03mm x 3.81mm			125V	Over Voltage_Over Current Devices	Mouser	576-0154004.DRT	Littelfuse Inc	0154004.DRT	K10000030445
102	11516	AF 1 / LB 12	1	4 SPST	SW1	4 pos	0.025A		24VDC	Switches	Mouser	611-TDA04H0SB1R	Itt Cannon - C&K	TDA04H0SB1R	K10000031490
103	11805	AF 1	5	PB SPST-NO Off-Mom	SW2, SW3, SW4, SW5, SW6	6.38mm x 6.22mm	1VA	300	32VAC/DC	Switches	Digi-Key	KT11P3JM34LFS	Itt Industries/C&K Div	KT11P3JM34LFS	K10000026794
104	13968	AF 9	1	1 - 4PDT On-On R/A	SW7	T/H R/A	0.2A		30VDC	Switches	Digi-Key	EG1914-ND	E-Switch	EG4208	K10000032202
105	20684	W 11	1	100.000 MHz	Y2	3.00 X 5.00 mm				Crystals	Onlinecomponents	SM5545TEV-100.0M-T250	Pletronics	SM5545TEV-100.0MHz	K10000030850
106	19365	W 1	1	12MHZ	Y1	4-SMD 3.2mm x 2.5mm	10 pF	10		Crystals	Digi-Key	535-10283-1-ND	Abracon Corporation	ABM8G-12.000MHZ-B4Y-T	K10000018566
107	11047	AH 1	6	Test Loop - Black	TP14, TP22, TP24, TP25, TP26, TP27	0.040				Test Equipment	Heilind Electronics	5001	Keystone Electronics	5001	K10000030812
108	12926	AH 4	7	Test Loop - Red	TP16, TP17, TP18, TP19, TP20, TP21, TP22	0.040				Test Equipment	Heilind Electronics	5000	Keystone Electronic	5000	K10000029711
109	11048	AH 1	1	Test Loop - White	TP15	0.040				Test Equipment	Heilind Electronics	5002	Keystone Electronics	5002	K10000029292
110	23390	AM 82	1	120POS	J3	0.020" (0.50mm)				Connectors	Samtec	QSH-060-01-L-D-A-RT1	Samtec Inc	QSH-060-01-L-D-A-RT1	K10000030830
111	23391	AM 82	1	120POS	J4	0.020" (0.50mm)				Connectors	Samtec	QSH-090-01-L-D-A-RT1	Samtec Inc	QSH-090-01-L-D-A-RT1	K10000031278
112	14329	AM 39	1	2 X 30	J2	0.020" (0.50mm)				Connectors	Samtec	QSH-030-01-L-D-A	Samtec	QSH-030-01-L-D-A	K10000030893
113	11087-3	AM 2	3	1 X 3	JP3, JP4, JP8	0.1"	High Temp			Connectors	Samtec	HTSW-150-07-G-S	Samtec	HTSW-150-07-G-S	K10000031930
114	11087-2	AM 2	3	1 X 2	JP5, JP6, JP7	0.1"	High Temp			Connectors	Samtec	HTSW-150-07-G-S	Samtec	HTSW-150-07-G-S	K10000031930
115	11087-1	AM 2	15	1 X 1	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP28, TP29	0.1"	High Temp			Connectors	Samtec	HTSW-150-07-G-S	Samtec	HTSW-150-07-G-S	K10000031930
116	11649-3	AM 12	1	1 X 3	J18	0.1" SP				Connectors	Heilind Electronics	22-23-2031	Molex/Waldom Electronics C	22-23-2031	K10000025894
117	19153	AM 69	1	SSQ-144-01-G-D	J1	0.1" X 0.1"				Connectors	Samtec	SSQ-144-01-G-D	Samtec	SSQ-144-01-G-D	K10000031185
118	19367	AM 78	1	2 X 5 Shrouded	J13	0.100"				Connectors	Digi-Key	AHS10H-ND	Tyco Electronics	5102153-1	K10000030837
119	11042	AM 1	1	Power Jack	J12	2.1mm X 5.5mm				Connectors	Digi-Key	CP-002AH-ND	Cui Inc	PJ-002AH	K10000031928
120	17972	AM84	1	Banana Jack - Black	J9	16mm				Connectors	Allied Electronics	70020788	Alectron	ST-351B BLACK	K10000029239
47	17971	AM 84	2	Banana Jack RED	J8,J10	16 mm				Connectors	Allied Electronics	ST-351A RED	Alectron	ST-351A RED	K10000030624
122	11759	AM 14	6	142-0701-201	J7, J11, J14, J15, J16, J17	RF SMA				Connectors	Heilind Electronics	142-0701-201	Emerson Network Pwr Conn	142-0701-201	K10000031503
123	14289	AM 38 / BB 1	1	USB - Mini AB type	J5	SMT				Connectors	Samtec	MUSB-05-S-AB-SM-A	Jae Electronics	DX3R005HN2E700	K10000026177
124	19368	BB 57	1	1473005-4	J6	Socket DDR2 - 200 Pos				Connectors	Mouser	571-1473005-4	Tyco Electronics / Amp	1473005-4	K10000030848
125	14560	HW / CORNE	6	Shunt	NOTE	0.1" SP				Hardware	Mouser	151-8000-E	Kobiconn	151-8000-E	K10000030810
126	23912		1		Z_FANHEATSINK		0°C to +85°C		1.8V	Thermal Management	Texas Instruments	EP4SGX70HF35C2N	Radian Heatsinks	FB35+K52B+T710	
127	24326		4	0.75" - Aluminum	Standoffs	4-40 Hex - F/F				Hardware	Mouser	534-2204	Keystone Electronics	2204	K10000032131
128	12505	AL 5 / HARDV	4	0.375"- Stainless Steel	Screws	4-40 Phillips Panhead				Hardware	D.B. Roberts	PMSSS 440 0038 PH	Building Fasteners	PMSSS 440 0038 PH	K10000024178
129	DNI	DNI	3	DNI	C11, C12, C337	DNI	DNI	DNI	DNI	Undefined Category	DNI	DNI	DNI	DNI	DNI
130	DNI-2	DNI	1	DNI	F2	DNI	DNI	DNI	DNI	Undefined Category	DNI	DNI	DNI	DNI	DNI
131	DNI-3	DNI	30	DNI	R66, R29, R33, R30, R36, R43, R44, R84, R88, R57, R58, R59, R60, R126, R127, R128, R138, R156, R96, R129, R130, R131, R132, R139, R141, R135, R136, R155, R153, R157	DNI	DNI	DNI	DNI	Undefined Category	DNI	DNI	DNI	DNI	DNI



TSW1400 Rev D				
KS-T/H-TOP				
Color	Part Number	Quantity	Reference	Description
	11087-1	15	TP1-TP13, TP28-TP29	Connectors 0.1" 1 X 1
	11087-2	3	JP5-JP7	Connectors 0.1" 1 X 2
	11087-3	3	JP3-JP4, JP8	Connectors 0.1" 1 X 3
	11649-3	1	J18	Connectors 0.1" SP 1 X 3
	19367	1	J13	Connectors 0.100" 2 X 5 Shrouded
	11042	1	J12	Connectors 2.1mm X 5.5mm Power Jack
	11759	6	J7, J11, J14-J17	Connectors RF SMA 142-0701-201
	13968	1	SW7	Switches T/H R/A 1 - 4PDT On-On R/A
	11047	6	TP14, TP22, TP24-TP27	Test Equipment 0.040 Test Loop - Black
	12926	7	TP16-TP21, TP23	Test Equipment 0.040 Test Loop - Red
	11048	1	TP15	Test Equipment 0.040 Test Loop - White
Company Proprietary Documentation				



TSW1400 Rev D				
KS-T/H-BOTTOM				
Color	Part Number	Quantity	Reference	Description
	19153	1	J1	Connectors 0.1" X 0.1" SSQ-144-01-G-D
Company Proprietary Documentation				



TSW1400 Rev D

KS-QC-TOP

Color	Part Number	Quantity	Reference	Description	Part Marking
	11409	2	DN1-DN2	Discrete Semiconductor Products SOT-323-3 Dual - Common Cathode	43
	11516	1	SW1	Switches 4 pos 4 SPST	TDA04
	11986	2	C87, D10	Optoelectronics 0805 LED-Green Diffused	Green Lens
	12703	9	D1-D9	Optoelectronics 0805 LED - Green Clear	Polarized
	13112	1	C9	Capacitors 3216-18 (EIA) 4.7uF	Polarity Mark
	13424	1	U19	Integrated Circuits 16-SOIC EPCS64SI16N	EPCS64N
	15684	1	D14	Discrete Semiconductor Products DO-214AB (SMC) B540C	B540C
	19318	1	C78	Capacitors D12.5 H13.5 680uF	Polarized
	19319	2	C54, C66	Capacitors 7343-43 (EIA) 470uF	Polarity Mark
	19325	1	U5	Integrated Circuits 1152-FBGA EP4SGX70HF35C3N	EP4SGX70HF35C3N
	19331	1	U4	Integrated Circuits 8-SOIC 93LC46BT-I/SN	93LC46B
	19357	1	C77	Capacitors D8 H6.2 47uF	Polarity Mark
	20684	1	Y2	Crystals 3.00 X 5.00 mm 100.000 MHz	polarized
	23388	1	D11	Discrete Semiconductor Products TO-277A (SMPC) SS3P6L-M3/86A	S36
	23395	1	U6	Integrated Circuits SOT-23-5 SN65LVDS1DBVR	SAAI
	11017-Shunt	3	SJP1-SJP3	Resistors 0603 0.0 (Zero Ohm)	Not Polarized
	19363	4	L7, L9-L11	Inductors_Coils_Chokes SMD 2.2uH	
	25200	2	U1, U14	Integrated Circuits VSSOP_8 SN74LVC3G07DCU	C07R
	19332	1	U3	Integrated Circuits 64-LQFP FT4232HL	FT4232HL
	19181	1	U18	Integrated Circuits 10-SON TPS74701DRC	CEG
	19687	2	U16-U17	Integrated Circuits 20-TSSOP TXB0108PWR	YE08
	25205	1	U11	Integrated Circuits 10-MSOP TPS51100DGQ	51100
	25206	1	U20	Integrated Circuits 14HTSSOP TPS61175PWP	61175
	25204	3	U9, U12, U15	Integrated Circuits 14-HTSSOP TPS54325PWP	PS54325
	18289	3	U8, U10, U13	Integrated Circuits 14-QFN TPS54620RGY	54620
	19665	1	U7	Integrated Circuits 20-HVQFN TPS74401RGW	TPS74401
	24251	1	U2	Integrated Circuits SOT-23-5 TPS76933DBVT	PCNI
	DNI	3	C11-C12, C337	Undefined Category DNI DNI	DNI
	DNI-2	1	F2	Undefined Category DNI DNI	DNI
	DNI-3	21	R29-R30, R33, R36, R43-R44, R57-R60, R66, R84, R88, R96, R126-R128, R153, R155-R157	Undefined Category DNI DNI	DNI

Hi Paul

Please pass this on to the board shop.

Place a Led PN# P494CT-ND in the C87 location. The cathode will go to ground. I will provide 100 pieces.

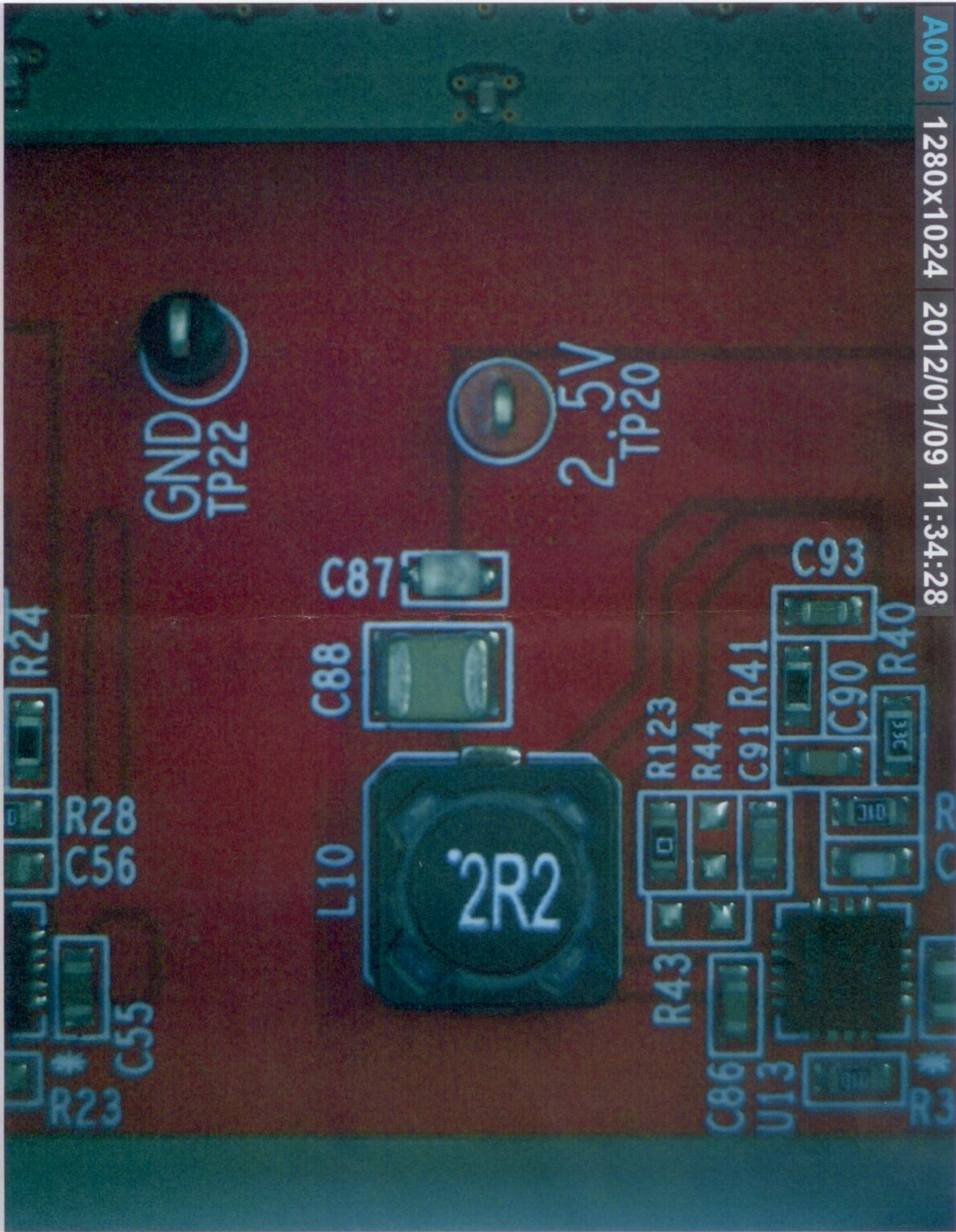
Rewire the Fan PIN 1 = RED, PIN 2 = BLACK, PIN 3 = WHITE

Ty wrap the fan wires to create a small loop.

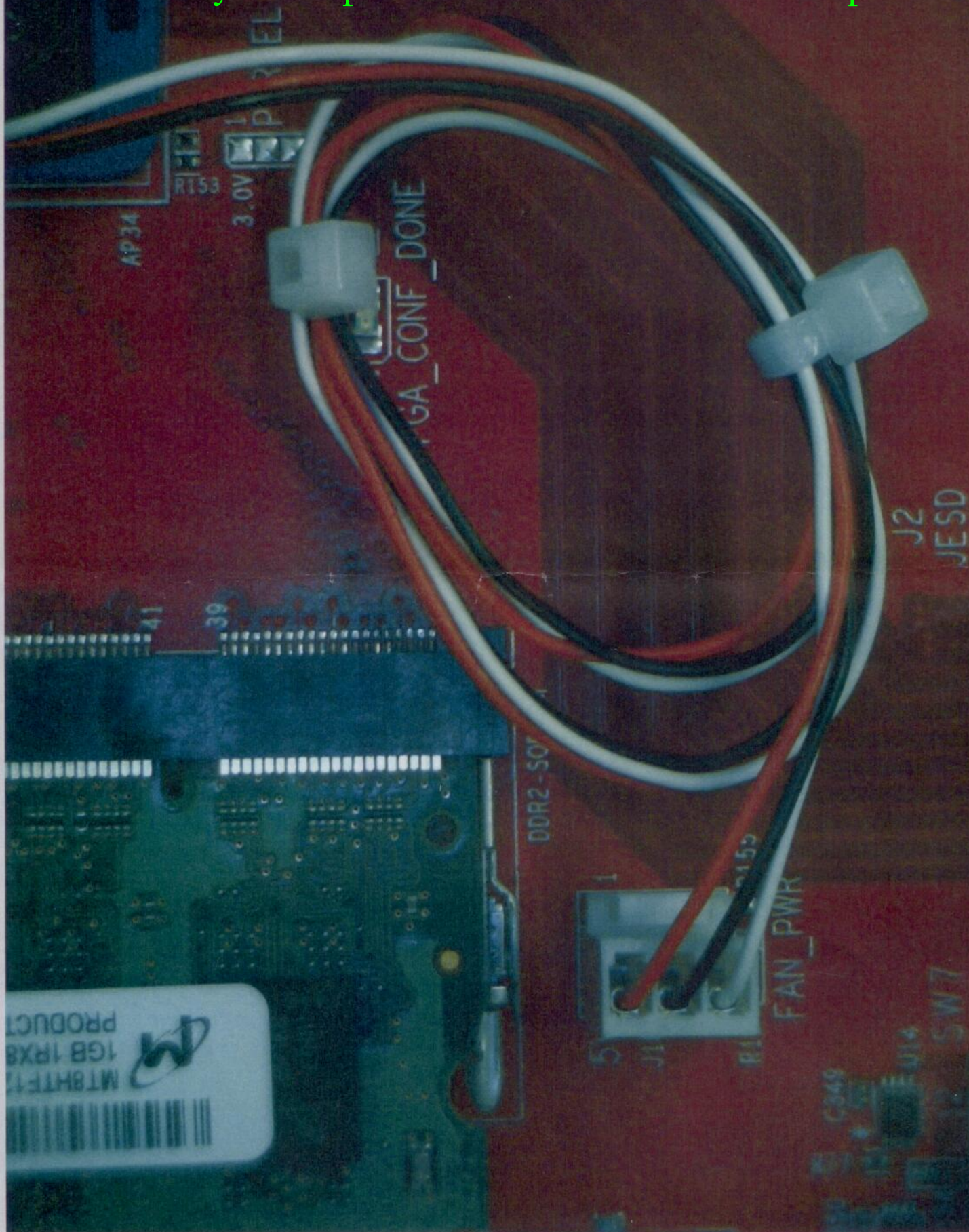
See the attachment for pictures.

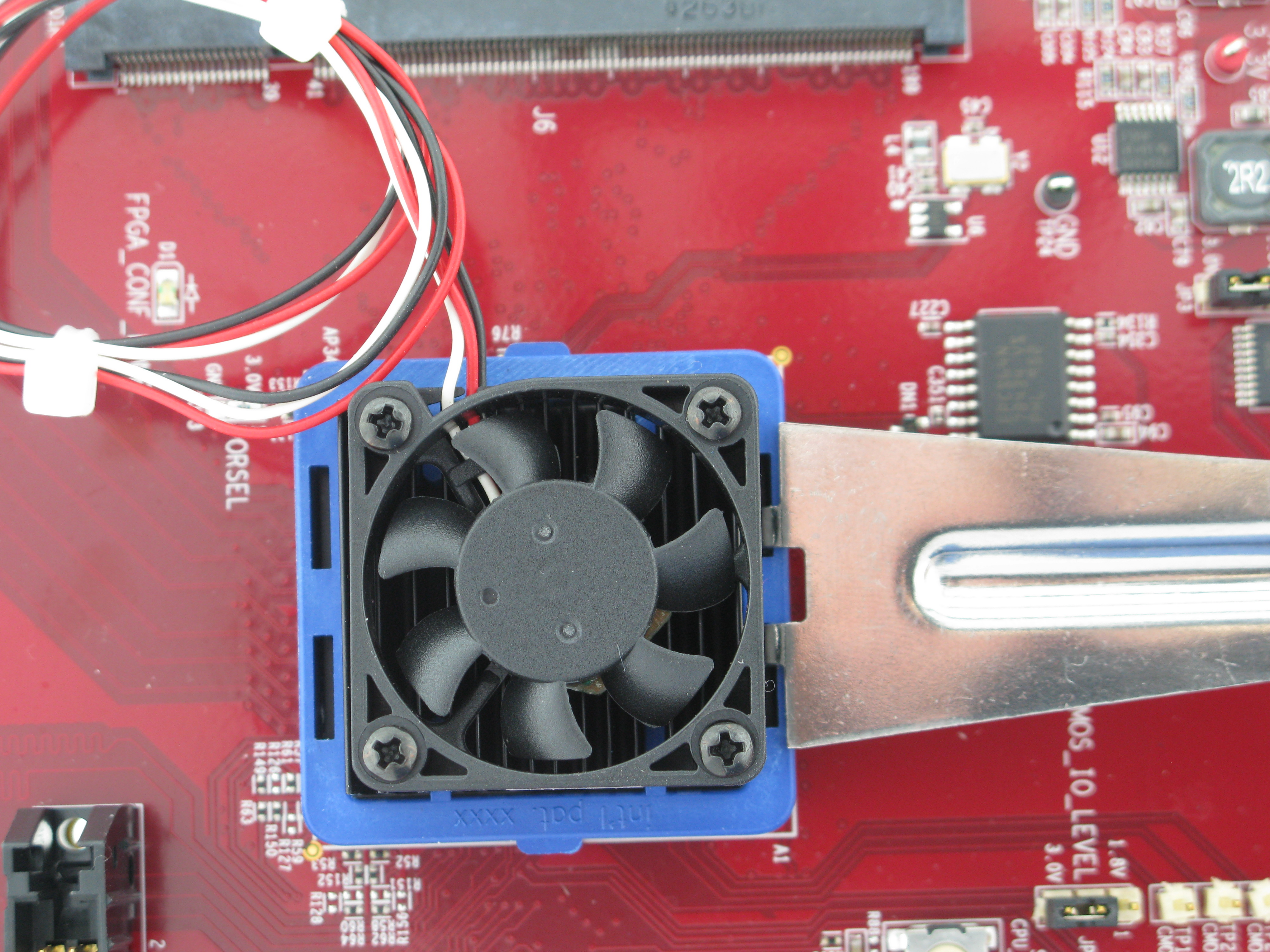
Ron Treisch

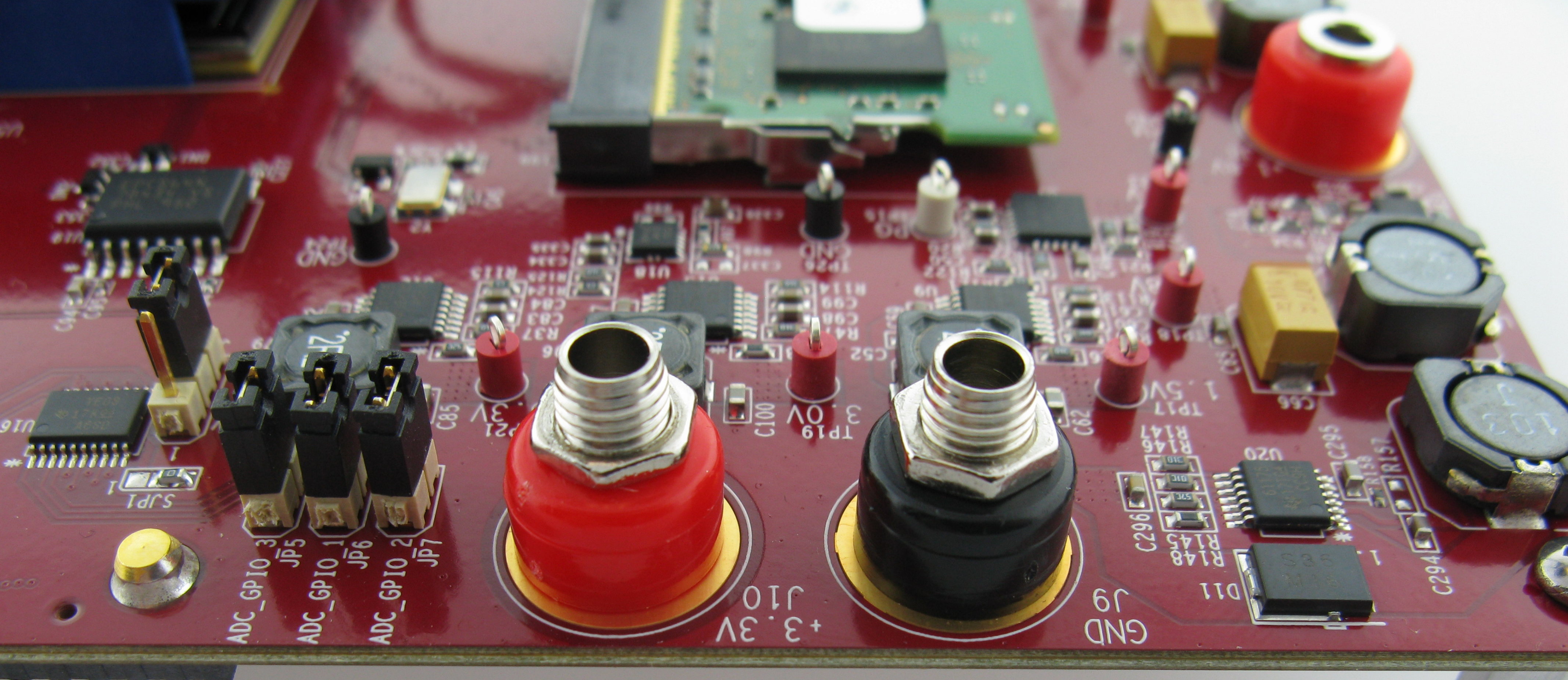
HPA/HSP Data Converters
Texas Instruments Inc. Dallas, Tx.
Office-(214) 480-1903
r-treisch@ti.com

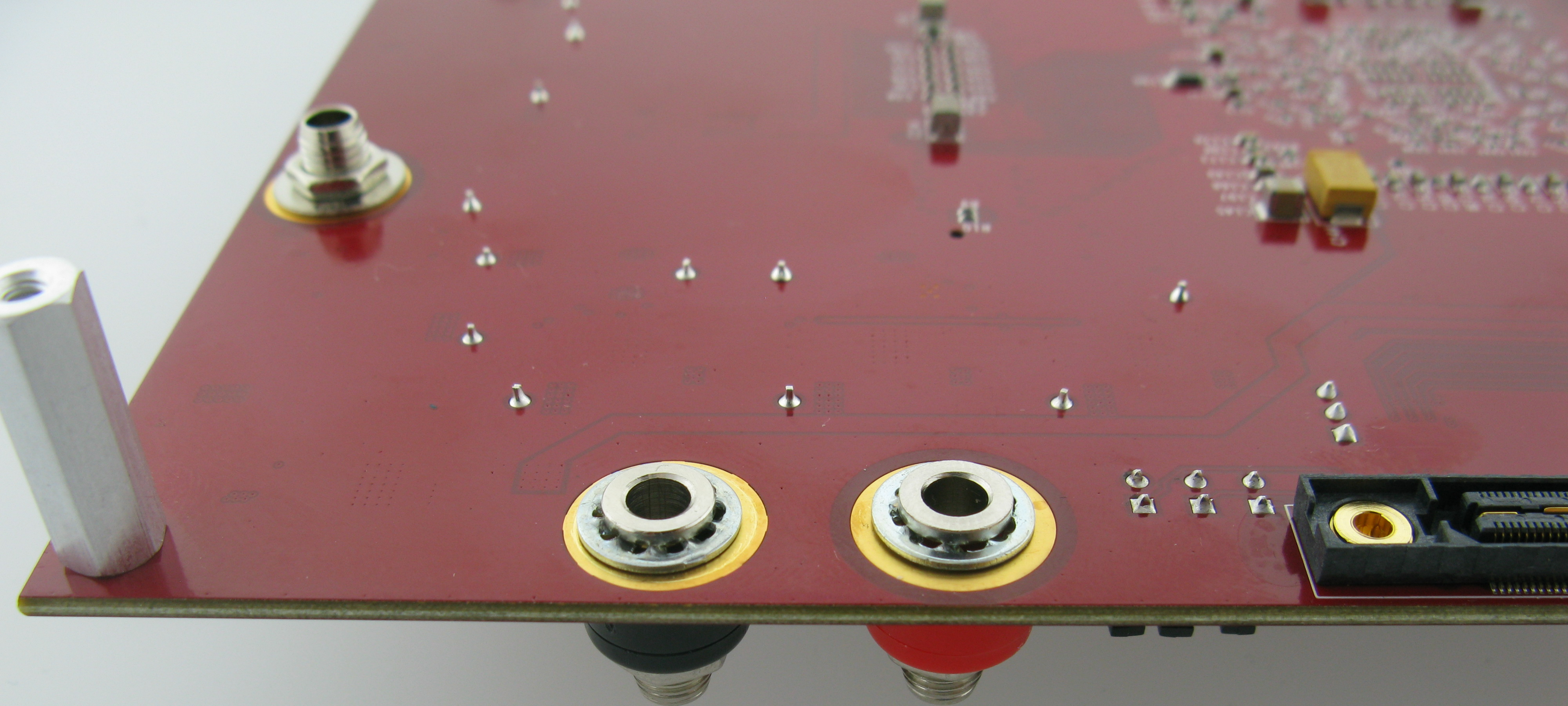


PIN1=RED PIN2=BLACK PIN3= WHITE
Try to wrap the wires to create a small loop









DATE	KS REV NUMBER	DESCRIPTION
10/18/2011	1.0	Converted original BOM to KS format
12/5/2011	1.0	Repeat of job # 115866
1/5/2012	1.1	Repeat of job # 116106
1/26/2012	1.1	Repeat of job # 116250
1/27/2012	1.1	Repeat of job # 116308
1/27/2012	1.1	Repeat of job # 116376
2/23/2012	1.1	Repeat of Job # 116372
3/14/2012	1.1	Repeat of job # 116522
4/4/2012	1.1	Split of job # 116522 (19build split into 9 & 8)
6/18/2012	1.1	Repeat of job # 116789