

TCS3 Safety Board BOM Rev. D

Find #	Quantity	Part Number	Description	Designator	Manufacturer	Value
1	60	C1206F105K5RACTU	Ceramic Chip Capacitor, 1uF, 50V, 10%, X7R	C1, C2, C3, C5, C18, C19, C25, C26, C27, C28, C29, C30, C31, C32, C34, C35, C40, C42, C47, C70, C78, C79, C80, C86, C88, C89, C90, C104, C105, C108, C109, C112, C114, C115, C117, C119, C121, C122, C124, C125, C126, C127, C129, C130, C131, C132, C133, C135, C136, C138, C139, C141, C144, C145, C148, C149, C150, C154, C158, C162	Kemet	1uF
2	8	C1206C223K5RACTU	Ceramic Chip Capacitor, 0.022uF, 50V, 10%, X7R	C4, C6, C7, C9, C11, C22, C61, C62	Kemet	0.022uF
3	4	C1206C683K1RACTU	Ceramic Chip Capacitor, 0.068uF, 50V, 10%, X7R	C8, C13, C66, C82	Kemet	0.068uF
4	66	C1206C104K5RACTU	Ceramic Chip Capacitor, 0.1uF, 50V, 10%, X7R	C10, C12, C15, C16, C23, C24, C33, C36, C39, C41, C43, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C67, C68, C71, C74, C75, C76, C77, C81, C83, C84, C85, C87, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, C101, C102, C103, C106, C107, C116, C118, C120, C123, C128, C134, C137, C140, C142, C143, C146, C147, C151, C152, C153, C155, C156, C160	Kemet	0.1uF
5	2	C1206C224K5RACTU	Ceramic Chip Capacitor, 0.22uF, 50V, 10%, X7R	C14, C72	Kemet	0.22uF
6	4	C1206C222K5RACTU	Ceramic Chip Capacitor, 2200pF, 50V, 5%, X7R	C17, C21, C64, C73	Kemet	2200pF
7	4	C1206C334K5RACTU	Ceramic Chip Capacitor, 0.33uF, 50V, 10%, X7R	C20, C63, C65, C69	Kemet	0.33uF
8	1	C1206C103K5RACTU	Ceramic Chip Capacitor, 0.01uF, 50V, 10%, X7R	C37	Kemet	0.01uF
9	1	TAJC106K025R	CAP TANTALUM, 10UF, 25V, 10%	C38	AVX	10uF
10	4	ECJ-4YB1E226M	Ceramic Chip Capacitor, 22uF, 25V, 20%, X5R	C44, C45, C48, C49	Panasonic	22uF
11	8	T495X107K025ZTE150	CAP TANTALUM, 100UF, 25V, 10%	C46, C50, C111, C113, C159, C161, C164, C165	Kemet	100uF
12	3	B45197A2477K509	CAP TANTALUM 470UF 10V 10%	C110, C157, C163	Kemet	470uF
13	2	LM4040DIM3-5.0/NOPB	5V Shunt Voltage Reference, 1%	D1, D8	National Semiconductor	5V

TCS3 Safety Board BOM Rev. D

14	16	RS1DB-13	RECT FAST RECOVERY 200V 1A	D2, D3, D4, D5, D6, D7, D9, D15, D16, D17, D18, D20, D21, D23, D25, D27	Diodes Inc	
15	4	SMAJ26CA	TVS 400W 26V BIDIRECT SMA	D10, D11, D12, D28	Diodes Inc.	26V
16	4	1SMA10CAT3G	TVS 400W 10V BIDIRECT SMA	D19, D22, D24, D26	ON Semiconductor	10V
17	7	LTST-C930KGKT	LED, Green, Dome, 1210 SMD	DS1, DS2, DS3, DS4, DS5, DS6, DS7	Lite-On Inc	Green
18	1	5499922-2	Header, 14-Pin, Dual row, Straight, Latch, Shroud	J1	Tyco	
19	1	22-23-2051	Header, 5 position, single row, male, straight	J2	Molex/Waldom	
20	2	1-5499923-0	Header, 50-Pin, Dual Row, Shrouded, Straight, Male, Shroud	J3, J4	Tyco	
21	1	5499922-3	Header, 16-Pin, Dual row, Straight, Latch, Shroud	J5	Tyco	
22	1	87831-1420	Header, 14-Pin, Dual row, Straight, Shroud	J6	Molex/Waldom Electronics Corp.	
23	2	8532-46LTR	Inductor, 5.6mH, 180mA, 15%	L1, L3	API Delevan Inc	5.6mH
24	1	ZJYS51R5-M4PAT-01	Inductor, CM, 4 terminal, 500mA	L2	TDK	
25	3	8532-38LTR	Inductor, 1.2mH, 370mA, 15%	L5, L6, L9	API Delevan Inc	1.2mH
26	2	50105C	Inductor, CM, 1mH, 700mA, 50%	L7, L8	muRata	1mH
27	2	MMBT3906	PNP Switching Transistor	Q1, Q2	Fairchild Semiconductor	
28	1	MMBT3904	NPN Switching Transistor	Q3	Fairchild Semiconductor	
29	79	ERJ-8ENF1002V	Thick Film Chip Resistor, 10k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R2, R6, R7, R26, R47, R51, R53, R56, R57, R58, R59, R60, R61, R64, R69, R76, R77, R85, R88, R90, R99, R106, R113, R117, R128, R129, R130, R132, R134, R135, R136, R142, R143, R146, R156, R158, R170, R171, R175, R176, R181, R182, R185, R196, R204, R205, R206, R219, R239, R247, R248, R252, R266, R276, R279, R283, R287, R288, R295, R298, R308, R312, R316, R317, R322, R323, R324, R328, R337, R340, R341, R345, R354, R355, R358, R359, R361, R365, R371	Panasonic	10k

TCS3 Safety Board BOM Rev. D

30	50	ERJ-8GEY0R00V	Thick Film Chip Resistor, 0 Ohm, 1206 Size, 0.25 W	R3, R4, R8, R49, R50, R114, R148, R149, R151, R153, R154, R155, R161, R172, R173, R179, R180, R183, R184, R192, R198, R200, R201, R203, R210, R213, R227, R241, R255, R275, R285, R292, R306, R307, R318, R319, R320, R321, R327, R329, R330, R331, R332, R369, R370, R373, R374, R380, R381, R384	Panasonic	0
31	2	ERJ-8ENF2002V	Thick Film Chip Resistor, 20k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R5, R199	Panasonic	20k
32	8	ERJ-8ENF4752V	Thick Film Chip Resistor, 47.5k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R9, R10, R11, R12, R13, R14, R15, R16	Panasonic	47.5k
33	22	ERJ-8ENF4871V	Thick Film Chip Resistor, 4.87k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R17, R23, R38, R46, R105, R110, R119, R120, R121, R122, R144, R150, R188, R191, R234, R259, R284, R296, R299, R304, R305, R311	Panasonic	4.87k
34	10	ERJ-8ENF2003V	Thick Film Chip Resistor, 200k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R18, R24, R30, R39, R48, R66, R70, R214, R216, R249	Panasonic	200k
35	12	ERJ-8ENF3013V	Thick Film Chip Resistor, 301k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R19, R20, R21, R41, R52, R220, R223, R224, R230, R232, R242, R256	Panasonic	301k
36	4	ERJ-8ENF6811V	Thick Film Chip Resistor, 6.81k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R22, R42, R71, R229	Panasonic	6.81k
37	4	ERJ-8ENF5622V	Thick Film Chip Resistor, 56.2k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R25, R34, R222, R245	Panasonic	56.2k
38	19	ERJ-8ENF1003V	Thick Film Chip Resistor, 100k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R27, R74, R83, R86, R89, R94, R96, R97, R98, R103, R115, R169, R217, R265, R267, R270, R271, R278, R289	Panasonic	100k
39	25	ERJ-8ENF2001V	Thick Film Chip Resistor, 2k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R28, R32, R40, R62, R82, R93, R95, R101, R108, R111, R112, R116, R118, R272, R274, R280, R286, R290, R291, R294, R297, R348, R349, R364, R378	Panasonic	2k

TCS3 Safety Board BOM Rev. D

40	2	ERJ-8ENF3322V	Thick Film Chip Resistor, 33.2k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R31, R233	Panasonic	33.2k
41	39	ERJ-8ENF1000V	Thick Film Chip Resistor, 100 Ohm, 1% Tolerance, 1206 Size, 0.25 W	R36, R43, R80, R109, R123, R124, R125, R126, R127, R131, R133, R137, R147, R157, R164, R174, R215, R250, R261, R300, R303, R309, R313, R314, R315, R325, R326, R338, R339, R342, R346, R347, R356, R357, R360, R362, R367, R368, R372	Panasonic	100
42	8	ERJ-8ENF6812V	Thick Film Chip Resistor, 68.1k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R37, R44, R211, R212, R218, R236, R240, R246	Panasonic	68.1k
43	3	ERJ-8ENF4022V	Thick Film Chip Resistor, 40.2k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R45, R72, R251	Panasonic	40.2k
44	10	ERJ-8ENF1001V	Thick Film Chip Resistor, 1k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R65, R73, R78, R253, R260, R301, R334, R336, R387, R390	Panasonic	1k
45	2	ERJ-8ENF1823V	Thick Film Chip Resistor, 182k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R75, R226	Panasonic	182k
46	18	ERJ-8ENF1211V	Thick Film Chip Resistor, 1.21k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R79, R84, R87, R91, R92, R100, R102, R104, R107, R221, R225, R268, R269, R273, R277, R281, R282, R293	Panasonic	1.21k
47	3	ERJ-8ENF2490V	Thick Film Chip Resistor, 249 Ohm, 1% Tolerance, 1206 Size, 0.25 W	R145, R152, R310	Panasonic	249
48	2	ERJ-8ENF4751V	Thick Film Chip Resistor, 4.75k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R162, R163	Panasonic	4.75k
49	2	ERJ-8ENF15R8V	Thick Film Chip Resistor, 15.8 Ohm, 1% Tolerance, 1206 Size, 0.25 W	R190, R195	Panasonic	15.8
50	2	ERJ-8ENF1272V	Thick Film Chip Resistor, 12.7k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R207, R209	Panasonic	12.7k
51	4	ERJ-8ENF1502V	Thick Film Chip Resistor, 15k Ohm, 1% Tolerance, 1206 Size, 0.25 W	R243, R244, R254, R257	Panasonic	15k

TCS3 Safety Board BOM Rev. D

52	3	RC1206FR-073R01L	Thick Film Chip Resistor, 3.01 Ohm, 1% Tolerance, 1206 Size, 0.25W	R302, R382, R389	Yageo	3.01
53	2	MSS420004	Switch, Slide, 4PDT	SW1, SW2	Tyco Electronics Alcoswitch	
54	2	TL6120AF300QG	Switch, Tactile, SPST, NO	SW3, SW4	E-Switch	
55	12	5006	Black, Compact Test Point, Thru Hole, Loop	TP1, TP3, TP24, TP29, TP33, TP34, TP35, TP37, TP38, TP48, TP49, TP50	Keystone	Black
56	5	5005	Red, Compact Test Point, Thru Hole, Loop	TP2, TP4, TP36, TP51, TP52	Keystone	Red
57	4	5009	Yellow, Compact Test Point, Thru Hole, Loop	TP5, TP7, TP9, TP11	Keystone	Yellow
58	4	5008	Orange, Compact Test Point, Thru Hole, Loop	TP6, TP8, TP10, TP12	Keystone	Orange
59	27	5007	White, Compact Test Point, Thru Hole, Loop	TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP25, TP26, TP27, TP28, TP30, TP31, TP32, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46, TP47	Keystone	White
60	7	OPA4277UA	QUAD PRECISION OPAMP 14-SOIC	U1, U2, U3, U4, U6, U7, U8	Texas Instruments	
61	8	LM339DR2G	Quad Comparator	U5, U11, U12, U14, U15, U16, U20, U37	ON Semiconductor	
62	11	TLP281-4	Photocoupler	U9, U10, U13, U17, U18, U21, U22, U25, U31, U38, U39	Toshiba	
63	7	M74HC14RM13TR	Hex Schmitt-Trigger Inverter	U19, U28, U40, U42, U43, U44, U45	STMicroelectronics	
64	2	PS710EL-1A-A	Solid State Relay, 2A, 80V	U23, U41	NEC	
65	1	DS26LS32ACM	IC LINE RCVR QUAD DIFF	U24	National Semiconductor	
66	4	74AC541MTR	Octal Bus Buffer with 3 State Outputs (Non Inverted)	U27, U30, U33, U35	STMicroelectronics	
67	1	TS555IDT	IC PRECISION TIMER , CMOS, 8-SOIC	U29	STMicroelectronics	
68	1	XC9572-15TQG100C	XC9500 CPLD with 72 Macrocells, 100-Pin TQFP, Commercial Grade	U32	Xilinx	
69	2	MAX1232CSA+	IC MPU SUPERVISORY CIRCUIT 8SOIC	U34, U36	Maxim	