

The BOM for all modules are gathered here, one below the other in an order

Filename: #VALUE!
 Variant: 001
 Generate
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EVT001
 E2

EVT001 REV E2
 Bill of Materials

ITEM NO	REFERENCE DESIGNATOR	QUANTITY	VALUE	PART NUMBER	MANUFACTURER	DESCRIPTION	PACKAG REFERENCE	AVAILABILITY	ROHS (DIGI-KEY)	REACH STATUS (DIGI-KEY)	MANUFACTURER (DIGI-KEY)	MANUFACTURER PART NUMBER (DIGI-KEY)	DIGI-KEY PART NUMBER (DIGI-KEY)	WITH_ALTERNATE_PACKAGING
1	PCB	1		EVT_001	Any	Printed Circuit Board								
2	C1, C4	2	0.1uF	C2012X7R2A104K125AA	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C2012X7R2A104K125AA	445-1418-2-ND	YES
3	C2, C3, C8, C9, C10, C11, C12, C13, C14	9	10uF	GRM21BR61C106KE15K	MuRata	CAP, CERM, 10 uF, 16 V,+/- 10%, X5R, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM21BR61C106KE15K	490-6473-2-ND	YES
4	C5, C6, C7	3	0.1uF	1206YC104KAT2A	AVX	CAP, CERM, 0.1 uF, 16 V,+/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	1206YC104KAT2A	478-12852-2-ND	YES
5	C15, C17, C18	3	0.22uF	GCM188R71H224KA64D	MuRata	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GCM188R71H224KA64D	490-5402-2-ND	YES
6	C16, C19, C24	3	0.1uF	CEU4J2X7R1H104K125AE	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CEU4J2X7R1H104K125AE	445-7856-2-ND	YES
7	C20	1	10uF	UMJ325KB7106MMHP	Taiyo Yuden	CAP, CERM, 10 uF, 50 V,+/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210	Active	ROHS3 Compliant	Reach unknown	Taiyo Yuden	UMJ325KB7106MMHP	587-6027-2-ND	YES
8	C21	1	0.1uF	GRM319R71H104KA01D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL31B104KBCNNC	1276-1017-1-ND	YES
9	C22	1	0.1uF	885012206095	Würth Elektronik	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	885012206095	732-8013-2-ND	YES
10	C23	1	0.022uF	885012206091	Würth Elektronik	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	885012206091	732-8009-2-ND	YES
12	D1, D2, D3, D4, D5	5	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060GS75000	732-4971-2-ND	YES
13	D6	1	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060RS75000	732-4978-2-ND	YES
14	D7	1	50V	S10AL-TP	Micro Commercial Components	Diode, Standard Recovery Rectifier, 50 V, 10 A, SMC Machine Screw, Round, #4-	SMC	Active	ROHS3 Compliant	Reach unaffected	Micro Commercial Co	S10AL-TP	S10AL-TPMSCT-ND	YES
15	H1, H2, H3, H4, H5	5		NY PMS 440 0025 PH	B&F Fastener Supply	40 x 1/4, Nylon, Phillips panhead	Screw C2000	Active	RoHS Compliant	Reach unknown	B&F Fastener Supply	NY PMS 440 0025 PH	H542-ND	NO
16	J1	1		HSEC8-160-01-L-DV-A-BL	Samtec	C2000 controlCARD-120HSEC connector, SMT Connector, DIM 1.27 mm	100 CKTS, An Identical Molex SD-87630-001	Obsolete	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HSEC8-160-01-L-DV-A-BL	SAM9083-ND	YES
17	J2	1		TMDSDIM100CON5PK	Texas Instruments	obsolete	1.27 mm 100 Pos.	Obsolete	ROHS3 Compliant	Reach unaffected	Texas Instruments	TMDSDIM100CON5PK	296-31411-ND	NO

18	J3, J6	2		SBH11-PBPC-D10-RA-BK	Sullins Connector Solutions	Header (Shrouded), 2.54mm, 10x2, Gold, TH	Header(S hrouded), 2.54mm, 10x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SBH11-PBPC-D10-RA-BK	S9180-ND	NO
19	J4	1		61300821021	Würth Elektronik	Header, 2.54mm, 4x2, Gold, R/A, TH	Header, 2.54mm, 4x2, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	61300821021	732-5353-ND	NO
20	J5	1		FTSH-113-01-F-DV-K	Samtec		HDR26	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	FTSH-113-01-F-DV-K	SAM9460-ND	YES
21	J7	1		TSW-106-07-G-D	Samtec	Header, 100mil, 6x2, Gold, TH	Header 6x2	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-106-07-G-D	SAM1028-06-ND	NO
22	J8, J10, J12, J17, J23, J26	6		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	61300311121	732-5316-ND	NO
23	J9, J13, J22	3		SBH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Header (shrouded), 100 mil, 7x2, Gold, TH	Shrouded Header Sullins 100mil, 1x2, 230 mil above insulator	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SBH11-PBPC-D07-ST-BK	S9170-ND	NO
24	J11, J15, J18, J24, J34	5		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Jack, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PBC02SAAN	S1011E-02-ND	NO
25	J14	1		PJ-037AH	CUI Inc.	Power Jack, 2mm, R/A, TH	Receptacle, 2.54mm, 14x1, Gold, TH	Active	RoHS Compliant	Reach unknown	CUI Devices	PJ-037AH	CP-037AH-ND	NO
26	J16, J27	2		SSW-114-01-G-S	Samtec	Receptacle, 2.54mm, 14x1, Gold, TH	2.54mm, 14x1, TH	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	SSW-114-01-G-S	SAM1209-14-ND	NO
27	J19	1		HSEC8-130-01-L-DV-A	Samtec	C2000 controlCARD-180HSEC (60-pin addon) connector, SMT	pin numbering	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HSEC8-130-01-L-DV-A	SAM9080-ND	YES
28	J20, J21	2		SBH11-PBPC-D10-ST-BK	Sullins Connector Solutions	Header (Shrouded), 2.54mm, 10x2, Gold, Black, TH	Header (Shrouded), 2.54mm, 10x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SBH11-PBPC-D10-ST-BK	S9172-ND	NO
29	J25	1		PPPC071LFBN-RC	Sullins Connector Solutions	Receptacle, 2.54mm, 7x1, Gold, TH	2.54mm, 7x1, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC071LFBN-RC	S7040-ND	NO
30	J28	1		TFM-106-02-S-D-A	Samtec	Header(Shrouded), 1.27mm, 6x2, Tin, SMT	Header(S hrouded), 1.27mm, 6x2, SMT	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	TFM-106-02-S-D-A	TFM-106-02-S-D-A-ND	YES
31	J29, J30, J31, J32	4		5-534206-1	TE Connectivity	Connector, Receptacle, 100mil, 2x1, Gold plated, TH	Header Receptacle	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5-534206-1	A32932-ND	NO
32	J33, TP1, TP2	3		734151471	Molex	MMCX JACK, 50 Ohm, Gold, TH	MMCX JACK, Gold, TH	Active	ROHS3 Compliant	Reach unaffected	Molex	0734151471	WM5557-ND	NO
33	Q1, Q2	2	30V	DMN3053L-7	Diodes Inc.	MOSFET, N-CH, 30 V, 4 A, AEC-Q101, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	DMN3053L-7	DMN3053L-7DICT-ND	YES

34	R1, R2	2	100	CRCW0603100RFKE A	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603100RFKEA	541-100HCT-ND	YES
35	R3, R57, R64 R4, R6, R8, R10, R12, R14, R16, R18, R25, R26, R27, R32, R33, R55, R67, R68, R69, R70, R79, R80	3	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-071KL	541-1.00KHRTR- ND	YES
36		20	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6GEY0R00V	P0.0ATR-ND	YES
37	R20, R85, R86	3	0	RCA12060000ZSEA	Vishay-Dale	RES, 0, 5%, 0.25 W, AEC- Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Vishay Dale Panasonic Electronic Components	RCA12060000ZSEA	541-2239-1-ND	YES
38	R23, R47, R48, R49, R50, R51, R52, R53, R103	9	1.00k	ERJ-P06F1001V	Panasonic	RES, 1.00 k, 1%, 0.25 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-P06F1001V	P16058TR-ND	YES
39	R29, R30, R34	3	100k	RT0805BRD07100KL	Yageo America	RES, 100 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo Panasonic Electronic Components	RT0805BRD07100KL	YAG1759CT-ND	YES
40	R31, R45	2	20k	ERJ-6GEYJ203V	Panasonic	RES, 20 k, 5%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6GEYJ203V	P20KATR-ND	YES
41	R37	1	1.69k	ERJ-6ENF1691V	Panasonic	RES, 1.69 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF1691V	P1.69KCTR-ND	YES
42	R38	1	5.60k	RR1220P-562-D	Susumu Co Ltd	RES, 5.60 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-562-D	RR12P5.6KDTR- ND	YES
43	R39, R46	2	3.74k	RR1220P-3741-D-M	Susumu Co Ltd	RES, 3.74 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu Panasonic Electronic Components	RR1220P-3741-D-M	RR12P3.74KDTR- ND	YES
44	R40, R43	2	9.09k	ERJ-6ENF9091V	Panasonic	RES, 9.09 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF9091V	P9.09KCTR-ND	YES
45	R41	1	6.19k	ERJ-6ENF6191V	Panasonic	RES, 6.19 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF6191V	P6.19KCTR-ND	YES
46	R42	1	4.53k	RR1220P-4531-D-M	Susumu Co Ltd	RES, 4.53 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-4531-D-M	RR12P4.53KDTR- ND	YES
47	R58, R59, R63, R65, R72	5	0	RCS06030000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC- Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCS06030000Z0EA	541-2779-1-ND	YES
48	R60	1	10.0	CRCW060310R0FKE AHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310R0FKEAH P	541-10.0SCT-ND	YES
49	R61	1	5.36	CRCW12065R36FKE A	Vishay-Dale	RES, 5.36, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Vishay Dale Panasonic Electronic Components	CRCW12065R36FKEA	541-5.36FFCT-ND	YES
50	R62	1	22.0k	ERJ-3EKF2202V	Panasonic	RES, 22.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF2202V	P22.0KHTR-ND	YES
51	R66	1	1.05k	RC0603FR-071K05L	Yageo	RES, 1.05 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo Panasonic Electronic Components	RC0603FR-071K05L	311-1.05KHRTR- ND	YES
52	R73	1	12.1k	ERJ-6ENF1212V	Panasonic	RES, 12.1 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF1212V	P12.1KCTR-ND	YES
53	R74, R75	2	4.99k	ERJ-6ENF4991V	Panasonic	RES, 4.99 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF4991V	P4.99KCTR-ND	YES
54	R76, R78	2	3.40k	ERJ-6ENF3401V	Panasonic	RES, 3.40 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF3401V	P3.40KCTR-ND	YES
55	R77, R101	2	15.0k	CRCW080515K0FKE A	Vishay-Dale	RES, 15.0 k, 1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW080515K0FKEA	541-15.0KCCT-ND	YES

56	R81, R82	2	10.0k	RR1220P-103-D	Susumu Co Ltd	RES, 10.0 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-103-D	RR12P10.0KDTR-ND	YES
57	R83	1	49.9	RC0603FR-0749R9L	Yageo	RES, 49.9, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0749R9L	311-49.9HRTR-ND	YES
58	R84, R87, R88, R89, R90, R93	6	10.0k	ERA-3ARW103V	Panasonic	RES, 10.0 k, 0.05%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERA-3ARW103V	P10KBETR-ND	YES
59	R91	1	1.5k	CRCW06031K50JNEA	Vishay-Dale	RES, 1.5 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06031K50JNEA	541-1.5KGCT-ND	YES
60	R92, R94, R95, R96, R97, R98, R99	7	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3GEY0R00V	P0.0GTR-ND	YES
61	R100, R102	2	100	CRCW0805100RFKEA	Vishay-Dale	RES, 100, 1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805100RFKEA	541-100CCT-ND	YES
62	S1	1		100SP3T1B1M3QEHE-Switch	E-Switch	Switch, Toggle SPDT 5A, 120V, TH	12.7x6.86 mm	Active	ROHS3 Compliant	Reach unaffected	E-Switch	100SP3T1B1M3QEHE-Switch	100SP3T1B1M3QEHE-ND	NO
63	TP6	1		5008	Keystone	Test Point, Compact, Orange, TH	Compact Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5008	36-5008-ND	NO
64	U1	1		TL1963AQKTTRQ1	Texas Instruments	Single Output Fast Transient Response LDO, 1.5 A, Adjustable 1.21 to 20 V Output, 2.1 to 20 V Input, 5-pin DDPACK (KTT), -40 to 125 degC, Green (RoHS & no Sb/Br)	KTT0005A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TL1963AQKTTRQ1	296-27440-2-ND	NO
65	U2	1		CD4053BQM96Q1	Texas Instruments	3 Circuit IC Switch 2:1 240Ohm 16-SOIC	SOIC16	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	CD4053BQM96Q1	296-CD4053BQM96Q1TR-ND	YES
66	U3	1		SN74HCS00QDRQ1	Texas Instruments	Automotive Catalog Quad 2-Input Positive-NAND Gates, D0014A, LARGE T&R	D0014A	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	SN74HCS00QDRQ1	296-SN74HCS00QDRQ1TR-ND	YES
67	U4	1		SN74LV4052AQPWRQ1	Texas Instruments	Automotive Catalog Dual 4-Channel Analog Multiplexer/Demultiplexer, PW0016A (TSSOP-16)	PW0016A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	SN74LV4052AQPWRQ1	296-29044-2-ND	NO
68	U5	1		OPA836IDBVR	Texas Instruments	Very Low Power, Rail to Rail Out, Negative Rail In, VFB Operational Amplifier, 2.5 to 5.5 V, -40 to 125 degC, 6-pin SOT23 (DBV6), Green (RoHS & no Sb/Br)	DBV0006A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	OPA836IDBVR	296-44388-2-ND	YES
69	U6	1		SN74AHC1G08QDBVRQ1	Texas Instruments	Automotive Catalog Single 2-Input Positive-AND Gate, DBV0005A (SOT-23-5)	DBV0005A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	SN74AHC1G08QDBVRQ1	296-23875-2-ND	NO
70	U7	1		DRV8876PWPR	Texas Instruments	Automotive Grade H-Bridge Motor Driver With Integrated Current Sense and Regulation, PWP0016J (TSSOP-16)	PWP0016J	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	DRV8876PWPR	296-53515-2-ND	YES
71	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							

72	R5, R7, R9, R11, R13, R15, R17, R19, R22, R24, R28, R35, R36, R54	0	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6GEY0R00V	P0.0ATR-ND	YES
73	R21	0	0	RCA12060000ZSEA	Vishay-Dale	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCA12060000ZSEA	541-2239-1-ND	YES
74	R44	0	20k	ERJ-6GEYJ203V	Panasonic	RES, 20 k, 5%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6GEYJ203V	P20KATR-ND	YES
75	R56, R71	0	0	RCS06030000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCS06030000Z0EA	541-2779-1-ND	YES

Filename: #VALUE!
Variant: 001
Generate
d: 11/11/2020 10:32:34 AM

**EVT002
E2**

**EVT002 REV E2
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference		Request Inventory	Reach				
82	!PCB1	1		EVT002	Any	Printed Circuit Board		Active	Verification	unknown	ifm efector, inc.	EVT002	2330-EVT002-ND	NO
83	C1, C6, C8	3	0.47uF	GRM21BR71H474KA88L	MuRata	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM21BR71H474KA88L	490-3328-2-ND	YES
84	C2, C3, C4, C5	4	22uF	GRM32ER71C226KE18L	MuRata	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM32ER71C226KE18L	490-4524-2-ND	NO
85	C7	1	0.47uF	GRM188R61E474KA12D	MuRata	CAP, CERM, 0.47 uF, 25 V, +/- 10%, X5R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10A474KA8NNNC	1276-1895-1-ND	YES
86	C9, C10	2	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM32ER71H106KA12L	490-6544-2-ND	YES
87	C11	1	100uF	EEE-FK1J101P	Panasonic	CAP, AL, 100 uF, 63 V, +/- 20%, 0.35 ohm, AEC-Q200 Grade 2, SMD	SMT Radial G	Active	ROHS3 Compliant	Reach unknown	Panasonic Electronic Components	EEE-FK1J101P	PCE3819TR-ND	YES
88	C12, C13, C14	3	2.2uF	GRM31CR61H225KA88L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X5R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL31A225KB9LNNC	1276-2723-1-ND	YES
89	C15	1	4.7pF	06035A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, COG/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A4R7CAT2A	478-1159-2-ND	YES
90	C16	1	2.2uF	GRM188C81A225KE34D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X6S, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGB3B1X6S1A225K055AC	445-7440-1-ND	YES
91	C17	1	1uF	C0603C105K3RACTU	Kemet	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0603C105K3RACTU	399-7376-2-ND	YES
92	C18	1	0.01uF	06031C103MAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 20%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06031C103MAT2A	478-3701-2-ND	YES
93	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
94	J1	1		HTSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	100mil, 3x1, TH	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HTSW-103-07-G-S	SAM8814-ND	NO

95	J3	1		SFH11-PBPC-D10-RA-BK	Sullins Connector Solutions	Receptacle, 2.54mm, 10x2, Gold, R/A, TH	Receptacle, 2.54mm, 10x2, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SFH11-PBPC-D10-RA-BK	S9205-ND	NO
96	L1	1	6.8uH	XAL7070-682MEB	Coilcraft	Inductor, Shielded, Composite, 6.8 uH, 9.2 A, 0.02 ohm, SMD	7.2x7x7.5 mm							
97	L2	1	2.2uH	XAL7030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 12.9 A, 0.0137 ohm, SMD	XAL7030							
98	R2, R5, R6	3	100k	A	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603100KFKEA	541-100KHCT-ND	YES
99	R3	1	0	A	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06030000Z0EA	541-0.0GCT-ND	YES
100	R4	1	24.9k	A	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060324K9FKEA	541-24.9KHCT-ND	YES
101	R7	1	100	A	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603100RFKEA	541-100HCT-ND	YES
102	R8	1	2.20k	RG2012P-222-B-T5	Susumu Co Ltd	RES, 2.20 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-222-B-T5	541-100HCT-ND	YES
103	R9	1	121k	A	Vishay-Dale	RES, 121 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805121KFKEA	541-121KCCT-ND	YES
104	R10	1	100	A	Vishay-Dale	RES, 100, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805100RFKEA	541-100CCT-ND	YES
105	TP1	1		5013	Keystone	Test Point, Multipurpose, Orange, TH	Orange Multipurpose Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5013	36-5013-ND	NO
106	TP2, TP4	2		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5010	36-5010-ND	NO
107	U1	1		LM73605QRNPRQ1	Texas Instruments	Automotive 3.5V to 36V 5A Synchronous Step-Down Voltage Regulator, RNP0030A (WQFN-30)	RNP0030A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	LM73605QRNPRQ1	296-49517-2-ND	YES
108	R1	0	100	A	Vishay-Dale	RES, 100, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805100RFKEA	541-100CCT-ND	YES

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**EVT_003
E1**

**EVT_003 REV E1
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
115	!PCB1	1		EVT_003	Any	Printed Circuit Board								
116	C1, C2, C3	3	3.3uF	C1210C335K5RACA	TDK	CAP, CERM, 3.3 uF, 100 V, +/- 20%, X7S, 1210	1210	Active	ROHS3 Compliant	Reach unaffected	KEMET	C1210C335K5RACAUTO	399-16023-1-ND	YES

117	C4, C9	2	0.47uF	C0603C474K8PACT U	Kemet	CAP, CERM, 0.47 uF, 10 V, +/- 10%, X5R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0603C474K8PACTU	399-3114-2-ND	YES
118	C5	1	180uF	25SVPF180M	Panasonic	CAP, Aluminum Polymer, 180 uF, 25 V, +/- 20%, 0.016 ohm, 2-Pin SMD, Body 8.3 x 8.3 mm, Height 12 mm SMD	2-Pin SMD, Body 8.3 x 8.3 mm, Height 12 mm	Active	ROHS3 Compliant	Reach unknown	Panasonic Electronic Components	25SVPF180M	P16510TR-ND	YES
119	C6, C7	2	22uF	EMK316BB7226ML-T	Taiyo Yuden	CAP, CERM, 22 uF, 16 V, +/- 20%, X7R, 1206_190	1206_190	Active	ROHS3 Compliant	Reach unknown	Taiyo Yuden	EMK316BB7226ML-T	587-4319-2-ND	YES
120	C8, C11	2	1uF	C1608X7R1C105K08 0AC	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C1608X7R1C105K080AC	445-1604-2-ND	YES
121	C10	1	0.1uF	C2012X7R2A104K12 5AA	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C2012X7R2A104K125AA	445-1418-2-ND	YES
122	C12	1	1000pF	C0603X102K5RACT U	Kemet	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0603X102K5RACTU	399-5348-2-ND	YES
123	D1	1	100V	MBRS3100T3G	ON Semiconductor	Diode, Schottky, 100 V, 3 A, SMC	SMC	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	MBRS3100T3G	MBRS3100T3GO STR-ND	YES
124	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
125	J1, J2	2		TSW-102-08-G-S-RA	Samtec	Header, 100mil, 2x1, Gold, R/A, TH	2x1 R/A Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-08-G-S-RA	SAM1039-02-ND	NO
126	L1	1	47uH	MSD1583-473MEB	Coilcraft	Coupled inductor, 47 uH, 6.7 A, 0.1 ohm, SMD	IND_14.8 x8.6x14.8 mm, SMD							
127	Q1	1	100V	FDMS86101	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 60 A, PQFN08A	PQFN08 A	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	FDMS86101	FDMS86101TR- ND	YES
128	R1	1	10	CRCW060310R0JNE A	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310R0JNEA	541-10GCT-ND	YES
129	R2	1	49.9	CRCW060349R9FKE A	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060349R9FKEA	541-49.9HCT-ND	YES
130	R3	1	100k	CRCW0603100KFKE A	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603100KFKEA	541-100KHCT-ND	YES
131	R4	1	49.9k	CRCW060349K9FKE A	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060349K9FKEA	541-49.9KHCT-ND	YES
132	R5	1	0	CRCW06030000Z0E A	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06030000Z0EA	541-0.0GCT-ND	YES
133	R6	1	221	CRCW0603221RFKE A	Vishay-Dale	RES, 221, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603221RFKEA	541-221HCT-ND	YES
134	R7	1	33.2k	CRCW060333K2FKE A	Vishay-Dale Stackpole	RES, 33.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale Stackpole	CRCW060333K2FKEA	541-33.2KHCT-ND	YES
135	R8	1	0.01	CSR1206FK10L0 A	Electronics Inc	RES, 0.01, 1%, 0.5 W, AEC-Q200 Grade 0, 0603	1206	Active	ROHS3 Compliant	Reach unaffected	Electronics Inc	CSR1206FK10L0	CSR1206FK10L0T R-ND	YES
136	R9	1	1.50k	CRCW06031K50FKE A	Vishay-Dale	RES, 1.50 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06031K50FKEA	541-1.50KHCT-ND	YES
137	R10	1	105k	CRCW0603105KFKE A	Vishay-Dale	RES, 105 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603105KFKEA	541-105KHCT-ND	YES
138	R11	1	5.90k	CRCW06035K90FKE A	Vishay-Dale	RES, 5.90 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06035K90FKEA	541-5.90KHCT-ND	YES
139	U1	1		LM3481QMM/NOPB	Texas Instruments	High Efficiency Low-Side N-Channel Controller for Switching Regulators, AEC-Q100 Grade 1, 10-pin Mini SOIC, 1000 Reel	DGS0010 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	LM3481QMM/NOPB	LM3481QMM/NO PBTR-ND	YES

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**EVT_004
E1**

TID #: N/A

**EVT_004 REV E1
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
146	!PCB1	1		EVT_004	Any	Printed Circuit Board								
147	C1, C3	2	10uF	C1608X5R1E106M080AC	TDK	CAP, CERM, 10 uF, 25 V, +/- 20%, X5R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C1608X5R1E106M080AC	445-9015-2-ND	YES
148	C2, C4	2	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B103KB8NNNC	1276-1009-1-ND	YES
149	C5	1	1uF	GCM188R71C105KA64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GCM188R71C105KA64D	490-5241-2-ND	YES
150	C6	1	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R1H104K080AA	445-5666-2-ND	YES
151	D1, D2	2	40V	MBR0540T1G	ON Semiconductor	Diode, Schottky, 40 V, 0.5 A, SOD-123	SOD-123	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	MBR0540T1G	445-5666-2-ND	YES
152	J1, J2	2		TSW-102-08-G-S-RA	Samtec	Header, 100mil, 2x1, Gold, R/A, TH	2x1 R/A Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-08-G-S-RA	SAM1039-02-ND	NO
153	R1	1	11.5k	ERJ-6ENF1152V	Panasonic	RES, 11.5 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF1152V	P11.5KCTR-ND	YES
154	R2	1	1.02k	ERJ-6ENF1021V	Panasonic	RES, 1.02 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF1021V	P1.02KCTR-ND	YES
155	T1	1	94uH	750316818	Würth Elektronik	Transformer, 94 uH, SMT Single Output Fast Transient Response LDO, 1.5 A, Adjustable 1.21 to 20 V Output, 2.1 to 20 V Input, 5-pin DDPAK (KTT), -40 to 125 degC, Green (RoHS & no Sb/Br)	9.25x8.3 mm	Active	ROHS3 Compliant	Reach unknown	Würth Elektronik	750316818	732-750316818TR-ND	YES
156	U1	1		TL1963AQKTTRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	KTT0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TL1963AQKTTRQ1	296-27440-2-ND	NO
157	U2	1		SN6501QDBVRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	SN6501QDBVRQ1	296-36967-2-ND	NO

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**EVT_005
E1**

TID #:		EVT_005 REV E1 Bill of Materials												
Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
164	IPC B1	1		EVT_005	Any	Printed Circuit Board								
165	C1, C2	2	8pF	CC0402DRNPO9BN8R0	Yageo	CAP, CERM, 8 pF, 50 V, +/- 6.25%, C0G/NP0, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Yageo	CC0402DRNPO9BN8R0	311-1639-2-ND	YES
166	C3	1	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL21B106KOQNNNE	1276-2872-2-ND	YES
167	C4, C5, C11, C12	4	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R1H104K080AA	445-5666-2-ND	YES
168	C6	1	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Taiyo Yuden	UMK107AB7105KA-T	587-3247-2-ND	YES
169	C7	1	10uF	CL31B106KBHNNNE	Samsung	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL31B106KBHNNNE	1276-6767-2-ND	YES
170	C8, C9, C10	3	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R2A102K080AA	445-5806-2-ND	YES
171	C13	1	0.33uF	C0603C334K4RACTU	Kemet	CAP, CERM, 0.33 uF, 16 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0603C334K4RACTU	399-4916-2-ND	YES
172	C14, C15	2	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A101JAT2A	478-1175-2-ND	YES
173	C16	1	4700pF	06031C472KAT2A	AVX	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06031C472KAT2A	478-1203-2-ND	YES
174	C17	1	0.01uF	12061C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	12061C103JAT2A	478-3783-2-ND	YES
175	D1	1	40V	MBRA140T3G	ON Semiconductor	Diode, Schottky, 40 V, 1 A, SMA	SMA	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	MBRA140T3G	TR-ND	YES
176	D2	1	30V	3SMAJ5936B-TP	Micro Commercial Components	Diode, Zener, 30 V, 3 W, SMA	SMA	Active	ROHS3 Compliant	Reach unaffected	Micro Commercial Co	3SMAJ5936B-TP	3SMAJ5936B-TPMSCT-ND	YES
177	D3	1	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060GS75000	732-4971-2-ND	YES
178	D4	1	Blue	150060BS75000	Würth Elektronik	LED, Blue, SMD	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060BS75000	732-4966-2-ND	YES
179	D5	1	24V	PESD1CAN,215	NXP Semiconductor	Diode, TVS, Bi, 24 V, 70 Vc, AEC-Q101, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	Nexperia USA Inc.	PESD1CAN,215	1727-3817-1-ND	YES
180	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
181	J1	1		SSW-101-23-F-D	Samtec	Receptacle, 2.54mm, 1x2, Gold, TH	2.54mm, 1x2, SMT D-Sub, 2.74mm, 9	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	SSW-101-23-F-D	SSW-101-23-F-D-ND	NO
182	J2	1		5747840-5	TE Connectivity	D-Sub, 2.74mm, 9 Position, R/A, TH	Position, R/A, TH	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5747840-5	A32093-ND	NO
183	J3, J5	2		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 2x1	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-07-G-S	SAM1029-02-ND	NO
184	J4	1		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	Header, 4x1	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-104-07-G-S	SAM1029-04-ND	NO

185	J6, J8	2		SSM-103-S-SV	Samtec	Receptacle, 2.54mm, 3x1, Gold with Tin tail, SMT	Receptacle, 2.54mm, 3x1, SMT	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	SSM-103-S-SV	SAM1152-03-ND	YES
186	J7	1		SFH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Receptacle, 2.54mm, 7x2, Gold, Black, TH	Receptacle, 2.54mm, 7x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SFH11-PBPC-D07-ST-BK	S9195-ND	NO
187	L1	1	4.7uH	B82462A4472M000	TDK	Inductor, Wirewound, Ferrite, 4.7 µH, 1.65 A, 0.08 ohm, AEC-Q200 Grade 0, SMD	6x6mm SMD, 4-Leads, Body 4.7 x 3.7 mm	Active	ROHS3 Compliant	Reach unaffected	EPCOS - TDK Electronics	B82462A4472M000	495-2665-2-ND	YES
188	L2	1	100uH	ACT45B-101-2P-TL003	TDK	Inductor, Ferrite, 100 uH, 0.15 A, 2 ohm, SMD	DQK0006 B	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	ACT45B-101-2P-TL003	445-3959-2-ND	YES
189	Q1	1	20V	CSD85301Q2	Texas Instruments	MOSFET, 2-CH, N-CH, 20 V, 6.7 A, DQK0006B (WSON-6)	DQK0006 B	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	CSD85301Q2	296-40010-2-ND	YES
190	R1, R4, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27	12	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0402JR-070RL	311-0.0JRCT-ND	YES
191	R2, R9	2	1.00k	RC0402FR-071KL	Yageo America	RES, 1.00 k, 1%, 0.0625 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0402FR-071KL	311-1.00KLRCT-ND	YES
192	R3, R8, R13, R14	4	10.0k	RC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0402FR-0710KL	311-10.0KLRCT-ND	YES
193	R5	1	0	5106	Keystone	RES, 0, 1%, 0.5 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5106	36-5106TR-ND	YES
194	R6	1	3.30k	ERJ-2RKF3301X	Panasonic	RES, 3.30 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-2RKF3301X	P3.30KLTR-ND	YES
195	R7	1	33.2k	CRCW040233K2FKED	Vishay-Dale	RES, 33.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW040233K2FKED	541-33.2KLCT-ND	YES
196	R10	1	100k	RC1005F104CS	Samsung Electro-Mechanics	RES, 100 k, 1%, 0.063 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	RC1005F104CS	1276-3432-2-ND	YES
197	R11, R16	2	0	ERJ-8GEY0R00V	Panasonic	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-8GEY0R00V	P0.0ETR-ND	YES
198	R12, R15	2	60.4	RC0603FR-0760R4L	Yageo	RES, 60.4, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0760R4L	311-60.4HRTR-ND	YES
199	R17	1	1.00Meg	ERJ-2RKF1004X	Panasonic	RES, 1.00 M, 1%, 0.1 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-2RKF1004X	P1.00MLTR-ND	YES
200	S1, S2	2		B3U-1000P	Omron Electronic Components	SWITCH TACTILE SPST-NO 0.05A 12V	3x1.6x2.5 mm	Active	RoHS Compliant	Reach unknown	Omron Electronics Inc-EMC Div	B3U-1000P	SW1020CT-ND	YES
201	TP2	1		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5010	36-5010-ND	NO
202	TP3	1		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5011	36-5011-ND	NO

203	U1	1		TCAN4550RGYRQ1	Texas Instruments	CAN-FD Controller with Integrated Transceiver, RGY0020A (VQFN-20) Single Output High PSRR LDO, 250 mA, Fixed 3.3 V Output, 2.7 to 6.5 V Input, with Low IQ, 5-pin SOT (DDC), -40 to 105 degC, Green (RoHS & no Sb/Br) Crystal, 40 MHz, 10 ppm, 8 pF, AEC-Q200 Grade 0, SMD	RGY0020 A	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	TCAN4550RGYRQ1	296-TCAN4550RGYR Q1TR-ND	NO
204	U2	1		TPS73433TDDCRQ1	Texas Instruments	TPS73433TDDCRQ1	DDC0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TPS73433TDDCRQ1	296-36844-2-ND	NO
205	Y1	1		NX2016SA-40M-STD-CZS-3	NDK	NX2016SA-40M-STD-CZS-3	2.0x0.45x 1.6mm	Active	RoHS Compliant	Reach unknown	NDK America, Inc.	NX2016SA-40M-STD-CZS-3	644-1305-2-ND	YES

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**EVT_007
E2**

TID #: N/A

**EVT_007 REV E2
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
212	!PCB1	1		EVT_007	Any	Printed Circuit Board								
213	C1, C3, C5, C7, C11, C12, C19	7	0.01uF	08051C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051C103JAT2A	478-3745-2-ND	YES
214	C2, C6, C13, C14, C15, C16, C17, C18, C20, C21, C22, C23	12	0.1uF	GRM219R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	CC0805KRX7R7BB104	311-1142-2-ND	YES
215	C4, C8, C9, C10	4	33pF	08051A330JAT2A	AVX	CAP, CERM, 33 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051A330JAT2A	478-1281-2-ND	YES
216	C24	1	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10 uF, 16 V, +/- 20%, X5R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	0805YD106MAT2A	478-4598-2-ND	YES
217	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
218	J2, J3	2		TSW-114-07-G-S	Samtec	Header, 100mil, 14x1, Gold, TH	14x1 Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-114-07-G-S	SAM1029-14-ND	NO
219	R1, R4, R10, R13, R25, R31, R37	7	100	CRCW0805100RDH EAP	Vishay-Dale	RES, 100, .5%, .125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805100RDHEAP	541-100AZCT-ND	YES
220	R2, R7	2	47.0k	RT0805BRD0747KL	Yageo America	RES, 47.0 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0805BRD0747KL	YAG1907CT-ND	YES
221	R3, R6, R12, R15	4	10.0k	RG2012P-103-B-T5	Susumu Co Ltd	RES, 10.0 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-103-B-T5	RG20P10.0KBTR-ND	YES
222	R5, R19, R22	3	3.32k	RR1220P-3321-D-M	Susumu Co Ltd	RES, 3.32 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-3321-D-M	RR12P3.32KDTR-ND	YES
223	R8, R17, R20, R21	4	33.2k	RG2012P-3322-B-T5	Susumu Co Ltd	RES, 33.2 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-3322-B-T5	RG20P33.2KBTR-ND	YES
224	R9, R18, R44, R45, R46, R47, R48, R49	8	100k	RR1220P-104-D	Susumu Co Ltd	RES, 100 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-104-D	RR12P100KDTR-ND	YES
225	R11, R16, R28, R34, R40, R41, R42, R43, R50, R51, R52	11	15.0k	RT0805BRD0715KL	Yageo America	RES, 15.0 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0805BRD0715KL	YAG1787CT-ND	YES

226	R14	1	7.87k	RR1220P-7871-D-M	Susumu Co Ltd	RES, 7.87 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-7871-D-M	RR12P7.87KDTR-ND	YES
227	R23, R29, R35	3	7.50k	RT0805BRD077K5L	Yageo America	RES, 7.50 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0805BRD077K5L	YAG1974CT-ND	YES
228	R24, R27, R30, R33, R36, R39	6	10.0k	MCU0805MD1002BP100	Vishay/Beyschlag	RES, 10.0 k, 0.1%, 0.2 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Beyschlag/Draloric	MCU0805MD1002BP100	MCU0805-10.0K-MBCT-ND	YES
229	R26, R32, R38	3	1.00k	CRCW12061K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW12061K00FKEA	541-1.00KFCT-ND	YES
230	U1, U8	2		SN74LVC74AQDRG4Q1	Texas Instruments	Automotive Catalog Dual Positive-Edge-Triggered D-Type Flip-Flops With Clear And Preset, PW0014A, LARGE T&R	PW0014A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	SN74LVC74AQDRG4Q1	296-SN74LVC74AQDRG4Q1TR-ND	YES
231	U2, U4	2		TLV6001IDBVR	Texas Instruments	1-MHz, Low-Power Operational Amplifier for Cost-Sensitive Systems, DBV0005A (SOT-23-5)	DBV0005A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV6001IDBVR	296-TLV6001IDBVRTR-ND	YES
232	U3, U5, U9, U11	4		TLV3502AID	Texas Instruments	4.5ns Rail-to-Rail Comparator, D0008A (SOIC-8)	D0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV3502AID	296-18301-5-ND	YES
233	U6, U10	2		OPA2350UA/2K5	Texas Instruments	High-Speed, Single-Supply, Rail-to-Rail Operational Amplifier MicroAmplifier(TM) Series, 2.7 to 5.5 V, -40 to 85 degC, 8-pin SOIC (D8), Green (RoHS & no Sb/Br)	D0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	OPA2350UA/2K5	296-26258-2-ND	YES
234	U7	1		CD74HC4075	Texas Instruments	High Speed CMOS Logic Triple 3-Input OR Gates, D0014A, SMALL T&R	D0014A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	CD74HC4075M	296-9227-5-ND	YES

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**EVT_008
E3**

**EVT_008 REV E3
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
241	!PCB1	1		EVT_008	Any	Printed Circuit Board								
242	C1, C2, C4	3	10µF	CGA4J1X7S1E106K125AC	TDK Corporation	Cap Ceramic 10uF 25V X7S 10% Pad SMD 0805 +125°C Automotive T/R	0805	Active	ROHS3 Compliant	Reach unknown	TDK Corporation	CGA4J1X7S1E106K125AC	445-181405-2-ND	YES
243	C3, C8, C16	3	15pF	GRM1885C1H150JA01D	MuRata	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	RoHS Compliant	Reach unknown	American Ceramics	600S150FT250XT	1284-1170-1-ND	YES
244	C5, C6, C7, C18, C21	5	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B104KA8NNNC	1276-1006-1-ND	YES
245	C9, C15	2	18pF	GRM1885C1H180JA01D	MuRata	CAP, CERM, 18 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10C180JB8NNNC	1276-1089-2-ND	YES

246	C10, C12, C14	3	0.01uF	GRM188R71H103KA 01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B103KB8NNNC	1276-1009-1-ND	YES
247	C11	1	1000pF	GRM1885C1H102JA 01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM1885C1H102JA01D	490-1451-2-ND	YES
248	C13	1	4700pF	GRM188R71H472KA 01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B472KB8NNNC	1276-1098-1-ND	YES
249	C17	1	4.7uF	C1608X6S1C475K08 0AC	TDK	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X6S, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C1608X6S1C475K080AC	445-9118-2-ND	YES
250	C20	1	0.1uF	GRM219R71C104KA 01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	CC0805KRX7R7BB104	311-1142-2-ND	YES
251	C22, C23, C24	3	0.01uF	08051C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051C103JAT2A	478-3745-2-ND	YES
252	D1	1	Green	150060GS75000	Würth Elektronik Micro Commercial	LED, Green, SMD Diode, Schottky, 40 V, 0.2 A, SOT-363	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik Micro Commercial	150060GS75000	732-4971-2-ND	YES
253	D2, D3, D4, D5	4	40V	BAS40DW-04-TP	Components	Fiducial mark. There is nothing to buy or mount.	SOT-363	Active	ROHS3 Compliant	Reach unaffected	Co	BAS40DW-04-TP	BAS40DW-04-TPCT-ND	YES
254	FID1, FID2, FID3	3		N/A	N/A		N/A							
255	J1	1		SFH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Receptacle, 2.54mm, 7x2, Gold, Black, TH	2.54mm, 7x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SFH11-PBPC-D07-ST-BK	S9195-ND	NO
256	J2, J4	2		SSM-103-S-SV	Samtec	Receptacle, 2.54mm, 3x1, Gold with Tin tail, SMT	2.54mm, 3x1, SMT D-Sub, 2.74mm, 9	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	SSM-103-S-SV	SAM1152-03-ND	YES
257	J3	1		5747840-5	TE Connectivity	D-Sub, 2.74mm, 9 Position, R/A, TH	2.74mm, 9 Position, R/A, TH	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5747840-5	A32093-ND	NO
258	Q1	1	50 V	DDC114YU-7-F	Panasonic NXP	Transistor, Dual NPN, 50 V, 0.1 A, SOT-363	SOT-363	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	DDC114YU-7-F	DDC114YU-FDICT-ND	YES
259	Q2	1	45 V	BC817-25,215	Semiconductor	Transistor, NPN, 45 V, 0.5 A, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	Nexperia USA Inc.	BC817-25,215	1727-2918-1-ND	YES
260	R1, R4, R12, R14, R16, R23, R30, R33, R36, R38, R41, R45, R46	13	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0710KL	311-10.0KHRTR-ND	YES
261	R3	1	2.10k	RC0603FR-072K1L	Yageo	RES, 1.30 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-072K1L	311-2.10KHRTR-ND	YES
262	R5, R10, R17, R21	4	32.4k	RC0603FR-0732K4L	Yageo	RES, 32.4 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0732K4L	311-32.4KHRTR-ND	YES
263	R7, R19	2	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-07100KL	311-100KHRTR-ND	YES
264	R8	1	6.20k	RC0603FR-076K2L	Yageo	RES, 6.20 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-076K2L	311-6.20KHRTR-ND	YES
265	R9, R20, R43	3	10.0	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0710RL	311-10.0HRTR-ND	YES
266	R25, R26	2	2.20k	RC0603FR-072K2L	Yageo	RES, 2.20 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-072K2L	311-2.20KHRTR-ND	YES
267	R27, R39	2	49.9k	RT0603BRD0749K9L	Yageo America	RES, 49.9 k, 0.1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0603BRD0749K9L	YAG1671CT-ND	YES
268	R28, R40	2	470k	RC0603FR-07470KL	Yageo	RES, 470 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-07470KL	311-470KHRTR-ND	YES

269	R29, R37	2	3.00k	RC0603FR-073KL	Yageo	RES, 3.00 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-073KL	311-3.00KHRTR-ND	YES
270	R31, R34	2	3.90k	RC0603FR-073K9L	Yageo	RES, 3.90 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-073K9L	311-3.90KHRTR-ND	YES
271	R32	1	20.0	RC0603FR-0720RL	Yageo	RES, 20.0, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0720RL	311-20.0HRTR-ND	YES
272	R35	1	15.0k	RC0603FR-0715KL	Yageo	RES, 15.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0715KL	311-15.0KHRTR-ND	YES
273	R42, R44	2	63.4k	RC0603FR-0763K4L	Yageo	RES, 63.4 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0763K4L	311-63.4KHRTR-ND	YES
274	R48	1	1.00k	ERJ-6ENF1001V	Panasonic	RES, 1.00 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF1001V	P1.00KCTR-ND	YES
275	R49, R50	2	100	CRCW0805100RDH EAP	Vishay-Dale	RES, 100, .5%, .125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0805100RDHEAP	541-100AZCT-ND	YES
276	R51	1	20.0k	ERJ-6ENF2002V	Panasonic	RES, 20.0 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6ENF2002V	P20.0KCTR-ND	YES
277	R52	1	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603JR-070RL	311-0.0GRTR-ND	YES
278	U1	1		TLV431BQDBZRQ1	Texas Instruments	Automotive Catalog Low-Voltage Adjustable Precision Shunt Regulator, 15 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV431BQDBZRQ1	296-39268-2-ND	NO
279	U2	1		OPA4171AQDRQ1	Texas Instruments	Automotive Catalog 36V, Low Power, RRO, General Purpose Operational Amplifier, D0014A (SOIC-14)	D0014A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	OPA4171AQDRQ1	296-48635-2-ND	NO
280	U3, U4	2		CD4053BQM96Q1	Texas Instruments	3 Circuit IC Switch 2:1 240Ohm 16-SOIC	SOIC16	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	CD4053BQM96Q1	296-CD4053BQM96Q1 TR-ND	YES
281	U5	1		ALM2402FQPWPRQ1	Texas Instruments	Dual Opamp with High Current Output, PWP0014H (HTSSOP-14)	PWP001 4H	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	ALM2402FQPWPRQ1	296-ALM2402FQPWP RQ1TR-ND	YES
282	U6	1		TLV6001IDBVR	Texas Instruments	1-MHz, Low-Power Operational Amplifier for Cost-Sensitive Systems, DBV0005A (SOT-23-5)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV6001IDBVR	296-TLV6001IDBVRTR-ND	YES
283	C19	0	0.01uF	12061C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	12061C103JAT2A	478-3783-2-ND	YES
284	R2, R15	0	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-07100KL	311-100KHRTR-ND	YES
285	R6, R11, R18, R22	0	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603JR-070RL	311-0.0GRTR-ND	YES
286	R13, R24	0	62.0k	RC0603FR-0762KL	Yageo	RES, 62.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0762KL	311-62.0KHRTR-ND	YES
287	R47	0	1.00Meg	ERJ-2RKF1004X	Panasonic	RES, 1.00 M, 1%, 0.1 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-2RKF1004X	P1.00MLTR-ND	YES

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EVT_009
 E1

EVT_009 REV E1
 Bill of Materials

TID #: N/A

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference	ROHS3	Reach	Manufacturer	PartNumber	Reference	Compliance
294	!PCB1	1		EVT_009	Any	Printed Circuit Board							
295	C1, C2, C7, C8	4	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM188R72A104KA35D	490-3285-2-ND YES
296	C3, C9	2	4700pF	CGA3E2X7R2A472K080AA	TDK	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R2A472K080AA	445-5810-2-ND YES
297	C4, C5	2	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL21B106KOQNNNE	1276-2872-2-ND YES
298	C6	1	0.01uF	12061C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	12061C103JAT2A	478-3783-2-ND YES
299	D1, D2	2	24V	NUP2105LT1G	ON Semiconductor	Diode, TVS, Bi, 24 V, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	NUP2105LT1G	478-3783-2-ND YES
300	J1	1		SFH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Receptacle, 2.54mm, 7x2, Gold, Black, TH	2.54mm, 7x2, TH D-Sub, 2.74mm, 9	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SFH11-PBPC-D07-ST-BK	S9195-ND NO
301	J2	1		5747840-5	TE Connectivity	D-Sub, 2.74mm, 9 Position, R/A, TH	2.54mm, 3x1, SMT SMD, 4-Leads, Body 4.7 x 3.7 mm	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5747840-5	A32093-ND NO
302	J3, J4	2		SSM-103-S-SV	Samtec	Receptacle, 2.54mm, 3x1, Gold with Tin tail, SMT	2.54mm, 3x1, SMT SMD, 4-Leads, Body 4.7 x 3.7 mm	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	SSM-103-S-SV	SAM1152-03-ND YES
303	L1, L2	2	100uH	ACT45B-101-2P-TL003	TDK	Inductor, Ferrite, 100 uH, 0.15 A, 2 ohm, SMD	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	ACT45B-101-2P-TL003	445-3959-2-ND YES
304	R2, R3, R7, R8	4	60.4k	CRCW060360K4FKEA	Vishay-Dale Stackpole	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale Stackpole	CRCW060360K4FKEA	541-60.4KHCT-ND YES
305	R4, R9	2	0	RMCF0603ZT0R00	Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Electronics Inc	RMCF0603ZT0R00	0TR-ND YES
306	U1, U2	2		TCAN1042GVDRQ1	Texas Instruments	Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TCAN1042GVDRQ1	296-50393-2-ND NO
307	R1, R6	0	0	RMCF0603ZT0R00	Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Electronics Inc	RMCF0603ZT0R00	0TR-ND YES
308	R5	0	1.00Meg	ERJ-2RKF1004X	Panasonic	RES, 1.00 M, 1%, 0.1 W, 0402	0402	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-2RKF1004X	P1.00MLTR-ND YES

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**EVT_010
 E2**

**EVT_010 REV E2
 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference	RoHS	Reach	Manufacturer	PartNumber	Quantity	Value	Unit
315	!PCB1	1		EVT_010	Any	Printed Circuit Board								
316	C1, C2	2	220uF	LLS2W221MELA	Nichicon	CAP, AL, 220 uF, 450 V, +/- 20%, TH	D25xL42 mm	Active	ROHS3 Compliant	Reach unaffected	Nichicon	LLS2W221MELA	493-2610-ND	NO
317	C3, C4	2	1uF	450MPK105J	Rubycon	CAP, Film, 1 uF, 450 V, +/- 5%, TH	18x9.5mm	Active	ROHS3 Compliant	Reach unaffected	Rubycon	450MPK105J	1189-1822-ND	NO
318	H1	1		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw	Active	RoHS Compliant	Reach unknown	B&F Fastener Supply	NY PMS 440 0025 PH	H542-ND	NO
319	J1, J3, J6, J18	4		SSW-105-01-G-S-002	Samtec	Conn Socket Strip SKT 5 POS 2.54mm Solder ST Thru-Hole	HDR4 2x2	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	SSW-105-01-G-S-002	SSW-105-01-G-S-002-ND	NO
320	J5, J8, J11	3		5-534206-2	TE Connectivity	Connector, Receptacle, 100mil, 2x2, Gold plated, TH	Header Receptacle	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5-534206-2	A32933-ND	NO
321	J10, J13	2		SSW-104-01-G-S-002	Samtec	4 Position Receptacle Connector Through Hole	HDR4 2x1	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	SSW-104-01-G-S-002	SSW-104-01-G-S-002-ND	NO
322	J15, J23, J24, J25, J26, J27	6		5-534206-1	TE Connectivity	Connector, Receptacle, 100mil, 2x1, Gold plated, TH	Header Receptacle	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5-534206-1	A32932-ND	NO
323	J16	1		PPPC072LFBN-RC	Sullins Connector Solutions	Receptacle, 2.54mm, 7x2, Gold, TH	2.54mm, 7x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC072LFBN-RC	S7110-ND	NO
324	J17, J22	2		SFH11-PBPC-D10-RA-BK	Sullins Connector Solutions	Receptacle, 2.54mm, 10x2, Gold, R/A, TH	10x2, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	SFH11-PBPC-D10-RA-BK	S9205-ND	NO
325	J19	1		SSW-110-21-L-T	Samtec	Connector, Header, 30 Position Receptacle, Through Hole	HDR30 4x2	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	SSW-110-21-L-T	SSW-110-21-L-T-ND	NO
326	J20	1		PPPC042LFBN-RC	Sullins Connector Solutions	Connector, Receptacle, 100mil, 4x2, Gold plated, TH	Header Receptacle 4x2 R/A	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC042LFBN-RC	S7107-ND	NO
327	J21	1		PPPC042LJBN-RC	Sullins Connector Solutions	Connector, Receptacle, 100mil, 4x2, Gold plated, R/A, TH	Header Receptacle	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC042LJBN-RC	S5557-ND	NO
328	MD1	1		CCS050M12CM2	Wolfspeed	Mosfet Array 6 N-Channel (3-Phase Bridge) 1200V (1.2kV) 87A (Tc) 337W	PTH_MO DULE_10 7MM5_45	Active	RoHS Compliant	Reach unknown	Cree/Wolfspeed	CCS050M12CM2	CCS050M12CM2-ND	NO
329	R1, R2, R4, R6, R8, R9	6	10.0k	CRCW060310K0FKEA	Vishay-Dale	Chassis Mount Module RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310K0FKEA	541-10.0KHCT-ND	YES

330	R3, R5, R7	3		CSS4J-4026R-L500F	Bourns	RES SMD 500 UOHM 1% 5W 4026	4026	Active	ROHS3 Compliant	Reach unaffected	Bourns Inc.	CSS4J-4026R-L500F	CSS4J-4026R- L500FTR-ND	YES
331	T1, T2, T3, T4, T5, T6	6		CB70-14-CY	Panduit	Terminal 90A Lug Fiducial mark. There is nothing to buy or mount.	CB70-14- CY	Active	ROHS3 Compliant	Reach unknown	Panduit Corp	CB70-14-CY	298-10399-ND	NO
332	FID1, FID2, FID3	0		N/A	N/A		N/A							
333	R10, R11, R12	0	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-6GEY0R00V	P0.0ATR-ND	YES

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**EVT_011
E2**

**EVT_011 REV E2
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Referenc e							
340	!PCB1	1		EVT_011	Any	Printed Circuit Board								
341	C1	1	10uF	C3216X5R1H106K16 0AB	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X5R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C3216X5R1H106K160AB	445-5998-2-ND	YES
342	C2, C2_1, C2_2, C2_3, C2_4, C2_5	6	220pF	GRM188R71H221KA 01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL10B221KB8NNNC	1276-1145-1-ND	YES
343	C3, C3_1, C3_2, C3_3, C3_4, C3_5, C4, C4_1, C4_2, C4_3, C4_4, C4_5	12	10uF	CL31B106KBHNNNE GRM188R71H103KA	Samsung	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL31B106KBHNNNE	1276-6767-2-ND	YES
344	C5, C5_1, C5_2, C5_3, C5_4, C5_5	6	0.01uF	01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL10B103KB8NNNC	1276-1009-1-ND	YES
345	C6, C6_1, C6_2, C6_3, C6_4, C6_5	6	1uF	GCM188R71C105MA 64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Murata Electronics	GCM188R71C105MA64D	GCM188R71C105 MA64D-ND	YES
346	C7, C7_1, C7_2, C7_3, C7_4, C7_5, C31, C31_1, C31_2, C31_3, C31_4, C31_5	12	0.1uF	CGJ3E2X7R1C104K 080AA	TDK	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL10B104KO8NNNC	1276-1005-1-ND	YES

347	C8, C8_1, C8_2, C8_3, C8_4, C8_5, C9, C9_1, C9_2, C9_3, C9_4, C9_5, C10, C10_1, C10_2, C10_3, C10_4, C10_5, C18, C18_1, C18_2, C18_3, C18_4, C18_5, C19, C19_1, C19_2, C19_3, C19_4, C19_5, C20, C20_1, C20_2, C20_3, C20_4, C20_5, C21, C21_1, C21_2, C21_3, C21_4, C21_5, C22, C22_1, C22_2, C22_3, C22_4, C22_5, C23, C23_1, C23_2, C23_3, C23_4, C23_5, C24, C24_1, C24_2, C24_3, C24_4, C24_5, C25, C25_1, C25_2, C25_3, C25_4, C25_5, C26, C26_1, C26_2, C26_3, C26_4, C26_5	72	100pF	GCM1885C1H101JA 16J	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A101JAT2A	478-1175-1-ND	YES
348	C11, C11_1, C11_2, C11_3, C11_4, C11_5, C13, C13_1, C13_2, C13_3, C13_4, C13_5, C15, C15_1, C15_2, C15_3, C15_4, C15_5, C29, C29_1, C29_2, C29_3, C29_4, C29_5	24	0.1uF	C1608X5R1H104K08 0AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X5R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C1608X5R1H104K080AA	445-7456-2-ND	YES
349	C12, C12_1, C12_2, C12_3, C12_4, C12_5, C14, C14_1, C14_2, C14_3, C14_4, C14_5, C17, C17_1, C17_2, C17_3, C17_4, C17_5, C30, C30_1, C30_2, C30_3, C30_4, C30_5, C27, C27_1, C27_2, C27_3, C27_4, C27_5, C28, C28_1, C28_2, C28_3, C28_4, C28_5	24	1uF	CGA3E1X7R1V105K 080AC	TDK	CAP, CERM, 1 uF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E1X7R1V105K080 AC	445-174215-2-ND	YES
350	C28_2, C28_3, C28_4, C28_5	12	4.7uF	GRM188C71C475KE 21D	Samsung	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7S, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM188C71C475KE21D	490-16337-1-ND	YES
351	D1, D13	2	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_060 3	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060RS75000	732-4978-2-ND	YES
352	D2	1	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_060 3	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060GS75000	732-4971-2-ND	YES
353	D3, D3_1, D3_2, D3_3, D3_4, D3_5, D5, D5_1, D5_2, D5_3, D5_4, D5_5, D10, D10_1, D10_2, D10_3, D10_4, D10_5, D7, D7_1, D7_2, D7_3, D7_4, D7_5, D8, D8_1, D8_2, D8_3, D8_4, D8_5, D9, D9_1, D9_2, D9_3, D9_4, D9_5	6	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA	Active	ROHS3 Compliant	Reach unaffected	STMicroelectronics	STTH112A	497-8048-2-ND	YES
354	D10_3, D10_4, D10_5, D7, D7_1, D7_2, D7_3, D7_4, D7_5, D8, D8_1, D8_2, D8_3, D8_4, D8_5	12	30V	BAT54WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	BAT54WS-7-F	BAT54WS-FDICT-ND	YES
355	D8_4, D8_5, D9, D9_1, D9_2, D9_3, D9_4, D9_5	12		SMCJ300A	Littelfuse Inc	Diode Surface Mount DO-214AB (SMCJ)	DO214A B	Active	ROHS3 Compliant	Reach unknown	Littelfuse Inc.	SMCJ300A	SMCJ300ALFTR-ND	YES
356	D9_5	6	12V	MMSZ5242BS-7-F	Diodes Inc.	Diode, Zener, 12 V, 200 mW, SOD-323	SOD-323	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	MMSZ5242BS-7-F	MMSZ5242BS-FDICT-ND	YES
357	FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
358	J1	1		TSW-110-08-G-T-RA	Samtec	Conn Unshrouded Header HDR 30 POS 2.54mm Solder RA Thru-Hole Automotive Bulk	HDR30	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	TSW-110-08-G-T-RA	TSW-110-08-G-T-RA-ND	NO

359	J2	1		PPPC032LFBN-RC	Sullins Connector Solutions	Receptacle, 2.54mm, 3x2, Gold, TH	Receptacle, 2.54mm, 3x2, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC032LFBN-RC	S7106-ND	NO
360	J3, J6	2		SSQ-102-03-G-S	Samtec	Receptacle, 2.54mm, 2x1, Gold, TH	Receptacle, 2.54mm, 2x1, TH	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	SSQ-102-03-G-S	SAM1198-02-ND	NO
361	J4, J4_1, J4_2, J4_3, J4_4, J4_5	6		PPPC031LFBN-RC	Sullins Connector Solutions	Receptacle, 100mil, 3x1, Gold, TH	Receptacle, 100mil, 3x1, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PPPC031LFBN-RC	S7036-ND	NO
362	J5, J5_1, J5_3, J5_5	4		TSW-105-08-G-S-RA-004	Samtec	THROUGH-HOLE .025 Conn Unshrouded Header HDR 4 POS 2.54mm	HDR4	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	TSW-105-08-G-S-RA-004	TSW-105-08-G-S-RA-004-ND	NO
363	J5_2, J5_4	2		TSW-104-08-G-S-RA-003	Samtec	Solder RA Thru-Hole Automotive Bulk Header, 100mil, 2x1, Gold, R/A, TH	HDR3 2x1 R/A Header White	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	TSW-104-08-G-S-RA-003	TSW-104-08-G-S-RA-003-ND	NO
364	J7	1		TSW-102-08-G-S-RA	Samtec	Header, 100mil, 2x1, Gold, R/A, TH	Header White	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-08-G-S-RA	SAM1039-02-ND	NO
365	PWM_1, PWM_2, PWM_3, PWM_4, PWM_5, PWM_6	6		5002	Keystone	Test Point, Miniature, White, TH	Miniature Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5002	36-5002-ND	NO
366	Q1, Q3	2	65 V	BC856A-7-F	Diodes Inc.	Transistor, PNP, 65 V, 0.01 A, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	BC856A-7-F	BC856A-FDICT-ND	YES
367	R1, R29	2	20.0k	ERJ-3EKF2002V	Panasonic	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF2002V	P20.0KHTR-ND	YES
368	R2, R12, R12_1, R12_2, R12_3, R12_4, R12_5	7	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310K0JNEA	541-10KGCT-ND	YES
369	R3, R30	2	120	CRCW0402120RJNE	Vishay-Dale	RES, 120, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0402120RJNE	541-120JCT-ND	YES
370	R4, R4_1, R4_2, R4_3, R4_4, R4_5, R18, R18_1, R18_2, R18_3, R18_4, R18_5, R21, R21_1, R21_2, R21_3, R21_4, R21_5	18	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06031K00FKEA	541-1.00KHCT-ND	YES
371	R7, R7_1, R7_2, R7_3, R7_4, R7_5	6	10.0	CRCW080510R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW080510R0FKEA	541-10.0CCT-ND	YES
372	R8, R8_1, R8_2, R8_3, R8_4, R8_5	6	10	CRCW080510R0JNEA	Vishay-Dale	RES, 10, 5%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW080510R0JNEA	541-10ACT-ND	YES
373	R9, R9_1, R9_2, R9_3, R9_4, R9_5, R10, R10_1, R10_2, R10_3, R10_4, R10_5, R11, R11_1, R11_2, R11_3, R11_4, R11_5	18	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF1002V	P10.0KHTR-ND	YES
374	R13, R13_1, R13_2, R13_3, R13_4, R13_5, R14, R14_1, R14_2, R14_3, R14_4, R14_5, R17, R17_1, R17_2, R17_3, R17_4, R17_5, R19, R19_1, R19_2, R19_3, R19_4, R19_5	24	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW0603100RJNEA	541-100GCT-ND	YES
375	R15, R15_1, R15_2, R15_3, R15_4, R15_5	6	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW08050000Z0EA	541-0.0ACT-ND	YES

376	R20, R20_1, R20_2, R20_3, R20_4, R20_5	6	10.0k	RCG060310K0FKEA	Vishay Draloric	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCG060310K0FKEA	541-1784-1-ND	YES
377	R22, R22_1, R22_2, R22_3, R22_4, R22_5, R25, R25_1, R25_2, R25_3, R25_4, R25_5	12	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06030000Z0EA	541-0.0GCT-ND	YES
378	R23, R23_1, R23_2, R23_3, R23_4, R23_5, R24, R24_1, R24_2, R24_3, R24_4, R24_5, R26, R26_1, R26_2, R26_3, R26_4, R26_5, R28, R28_1, R28_2, R28_3, R28_4, R28_5	24	10	CRCW201010R0JNEF	Vishay-Dale	RES, 10, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW201010R0JNEF	541-10.0WCT-ND	YES
379	R27	1	620	RC0603FR-07620RL	Yageo	RES, 620, 1%, 0.1 W, 0603 Isolated IGBT, SiC MOSFET Gate Driver With Real-Time Programmability, DWJ0036A (SOIC-36)	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-07620RL	311-620HRTR-ND	YES
380	U1, U1_1, U1_2, U1_3, U1_4, U1_5	6		UCC5870-DWJ	Texas Instruments	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 0, 0805	DWJ0036A							
381	C16, C16_1, C16_2, C16_3, C16_4, C16_5	0	0.1uF	C0805C104K5RACAUTO	Kemet	Fiducial mark. There is nothing to buy or mount. MOSFET, N-CH, 40 V, 5.6 A, SOT-23	0805	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0805C104K5RACAUTO	399-6928-2-ND	YES
382	FID1, FID2, FID3	0		N/A	N/A		N/A							
383	Q2, Q2_1, Q2_2, Q2_3, Q2_4, Q2_5	0	40V	SI2318CDS-T1-GE3	Vishay-Siliconix	RES, 0, 5%, 0.125 W, 0805	SOT-23	Active	ROHS3 Compliant	Reach unknown	Vishay Siliconix	SI2318CDS-T1-GE3	SI2318CDS-T1-GE3CT-ND	YES
384	R16, R16_1, R16_2, R16_3, R16_4, R16_5	0	0	CRCW08050000Z0EA	Vishay-Dale		0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW08050000Z0EA	541-0.0ACT-ND	YES

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**EVT_012
E2**

**EVT_012 REV E2
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
391	IPC1	1		EVT_012	Any	Printed Circuit Board								
392	C1, C1_1, C1_2, C1_3, C1_4, C1_5, C3, C3_1, C3_2, C3_3, C3_4, C3_5, C6, C6_1, C6_2, C6_3, C6_4, C6_5, C7, C7_1, C7_2, C7_3, C7_4, C7_5, C8, C9, C9_1, C9_2, C9_3, C9_4, C9_5, C10, C10_1, C10_2, C10_3, C10_4, C10_5	37	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R1E104K080AA	445-5667-2-ND	YES
393	C2, C2_1, C2_2, C2_3, C2_4, C2_5	6	10uF	GRT188C81A106ME13D	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X6S, AEC-Q200 Grade 2, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRT188C81A106ME13D	490-12283-2-ND	YES
394	C4, C4_1, C4_2, C4_3, C4_4, C4_5, C5, C5_1, C5_2, C5_3, C5_4, C5_5	12	4.7uF	GRT21BR61H475KE13L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 3, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRT21BR61H475KE13L	490-12394-2-ND	YES

395	C11	1	4.7uF	GRT188R61C475KE 13D	MuRata	CAP, CERM, 4.7 µF, 16 V,+/- 10%, X5R, AEC-Q200 Grade 3, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRT188R61C475KE13D	490-12319-2-ND	YES
396	C12	1	22uF	GRJ31CR71A226KE 12L	MuRata	CAP, CERM, 22 µF, 10 V,+/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL31B226KPHNNNE	1276-2769-1-ND	YES
397	D1, D1_1, D1_2, D1_3, D1_4, D1_5	6	70V	BAV70-E3-08	Vishay-Semiconductor	Diode, Switching, 70 V, 0.25 A, AEC-Q101, SOT-23	SOT-23	Active	ROHS3 Compliant	Reach unaffected	Vishay Semiconductor Diodes Division	BAV70-E3-08	BAV70-E3-08CT-ND	YES
398	D2, D2_1, D2_2, D2_3, D2_4, D2_5	6	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150060GS75000	732-4971-2-ND	YES
399	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							
400	J1, J1_1, J1_2, J1_3, J1_4, J1_5	6		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5-146280-3	5-146280-3-ND	NO
401	J2	1		HTSW-103-07-G-D	Samtec	Header, 2.54mm, 3x2, Gold, TH	3x2, Gold, TH	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HTSW-103-07-G-D	SAM10535-ND	NO
402	J3, J4	2		TSW-102-23-T-S	Samtec	Header, 2.54mm, 2x1, Tin, TH	2.54mm, 2x1, TH	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-23-T-S	SAM1075-02-ND	NO
403	L1	1		ACM4520V-142-2P-T00	TDK	Coupled inductor, ohm, AEC-Q200 Grade 1, SMD	4.7x4.5m	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	ACM4520V-142-2P-T00	445-15674-2-ND	YES
404	R1, R1_1, R1_2, R1_3, R1_4, R1_5	6	19.1k	CRCW080519K1FKE A	Vishay-Dale	RES, 19.1 k, 1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW080519K1FKEA	541-19.1KCCT-ND	YES
405	R2, R2_1, R2_2, R2_3, R2_4, R2_5	6	4.70k	ERJ-P06F4701V	Panasonic	RES, 4.70 k, 1%, 0.5 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-P06F4701V	P16073TR-ND	YES
406	R3, R3_1, R3_2, R3_3, R3_4, R3_5	6	3.01k	RT0603DRE073K01L	Yageo America	RES, 3.01 k, 0.5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0603DRE073K01L	311-2560-1-ND	YES
407	R4, R4_1, R4_2, R4_3, R4_4, R4_5	6	4.99k	RT0603DRE074K99L	Yageo America	RES, 4.99 k, 0.5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0603DRE074K99L	311-2608-1-ND	YES
408	T1, T1_1, T1_2, T1_3, T1_4, T1_5	6	200uH	750316856	Würth Elektronik	Transformer, 200 uH, SMD	11.43x8.3mm	Active	ROHS3 Compliant	Reach unknown	Würth Elektronik	750316856	732-750316856TR-ND	YES
409	U1, U1_1, U1_2, U1_3, U1_4, U1_5	6		SN6505DQDBVRQ1	Texas Instruments	Automotive Catalog Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBV0006A	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	SN6505DQDBVRQ1	296-SN6505DQDBVRQ1TR-ND	YES
410	U2, U2_1, U2_2, U2_3, U2_4, U2_5	6		TL431AQDBZRQ1	Texas Instruments	Green (RoHS & no Sb/Br)	DBZ0003A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TL431AQDBZRQ1	296-21853-2-ND	NO

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EVT_013
E1

TID #: TIDM-02009

EVT_013 REV E1
Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference
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417	IPCB	1		EVT_013	Any	Printed Circuit Board											
418	C1, C7, C13	3	10uF	GRM21BR70J106KE 76L	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL21B106KQQNNNE	1276-1113-1-ND	YES			
419	C2, C3, C8, C9, C14, C15	6	0.1uF	1206YC104KAT2A	AVX	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	1206YC104KAT2A	478-12852-2-ND	YES			
420	C4, C10, C16	3	330pF	06035A331JAT2A	AVX	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A331JAT2A	478-1181-2-ND	YES			
421	C5, C6, C11, C12, C17, C18	6	10pF	06035A100JAT2A	AVX	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A100JAT2A	478-1163-2-ND	YES			
422	C19, C20, C21	3	2.2uF	GRM31MR71C225K A35L	MuRata	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL31B225KOHNNNE	1276-1264-1-ND	YES			
423	C37, C39	2	0.1uF	CGJ3E2X7R1C104K 080AA	TDK	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL10B104KO8NNNC	1276-1005-1-ND	YES			
424	C38, C40	2	10uF	GRM188R61C106KA ALD	MuRata	CAP, CERM, 10 uF, 16 V, +/- 10%, X5R, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics Vishay Semiconductor	GRM188R61C106KAALD	490-10728-2-ND	YES			
425	D1, D2, D3, D4, D5, D6	6	4.3V	MMSZ4687-HE3-08	Vishay- Semiconductor	Diode, Zener, 4.3 V, 500 mW, AEC-Q101, SOD-123	SOD-123	Active	ROHS3 Compliant	Reach unaffected	Diodes Division	MMSZ4687-HE3-08	MMSZ4687-HE3- 08-ND	YES			
426	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A										
427	J1, J2, J4, J5, J9, J10	6		5-534206-1	TE Connectivity	Connector, Receptacle, 100mil, 2x1, Gold plated, TH	Header Receptacle	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	5-534206-1	A32932-ND	NO			
428	J3, J6, J7	3		PBC02DBAN	Sullins Connector Solutions	Header, 2.54mm, 2x2, Gold, R/A, TH	Header, 2.54mm, 2x2, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Sullins Connector Solutions	PBC02DBAN	S2111E-02-ND	NO			
429	J8	1		TSW-107-08-G-D-RA	Samtec	Header, 100mil, 7x2, Gold, R/A, TH	Header Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-107-08-G-D-RA	SAM1037-07-ND	NO			
430	J11, J12, J13, J14	4		923345-04-C	3M	Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200	Header Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200	Active	RoHS Compliant	Reach unknown	3M	923345-04-C	923345-04-ND	NO			
431	L1	1	100uH	MSS6122-104MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 100 uH, 0.4 A, 1.37 ohm, SMD	MSS6122										
432	R1, R2, R3, R4, R5, R6	6	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo Panasonic Electronic Components	RC0603FR-070RL	311-0.0HRCT-ND	YES			
433	R38	1	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo Panasonic Electronic Components	ERJ-3GEY0R00V	P0.0GTR-ND	YES			
434	U1, U3, U5	3		TPS76350DBVT	Texas Instruments	Single Output LDO, 150 mA, Fixed 5 V Output, 2.7 to 10 V Input, with Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TPS76350DBVT	296-2707-2-ND	YES			

435	U2, U4, U6	3		AMC1301DWVR	Texas Instruments	Precision +/-250-mV Input, 3-us Delay, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV000 8A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	AMC1301DWVR	296-44577-2-ND	YES
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**EVT_014
E1**

**EVT_014 REV E1
Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
442	IPC1	1		EVT_014	Any	Printed Circuit Board								
443	C1	1	2.2uF	GCM21BR71E225KA 73K	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL21B225KAFNFNE	1276-2953-1-ND	YES
444	C2, C4, C11, C16	4	0.22uF	08053C224JAT2A	AVX	CAP, CERM, 0.22 uF, 25 V, +/- 5%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08053C224JAT2A	478-3756-2-ND	YES
445	C3	1	2.2uF	GRM31MR71C225K A35L	MuRata	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL31B225KOHNNNE	1276-1264-1-ND	YES
446	C5	1	0.1uF	C1206H104J3GACT U	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 5%, C0G/NP0, 1206_190	1206_190	Active	ROHS3 Compliant	Reach unaffected	KEMET	C1206H104J3GACTU	399-5750-2-ND	YES
447	C6, C9, C14	3	15pF	08051A150JAT2A	AVX	CAP, CERM, 15 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051A150JAT2A	478-1279-2-ND	YES
448	C7	1	10pF	08051A100CAT2A	AVX	CAP, CERM, 10 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051A100CAT2A	478-3730-2-ND	YES
449	C8, C10, C15	3	100pF	08051A101JAT2A	AVX	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051A101JAT2A	478-1284-2-ND	YES
450	C12, C13	2	0.1uF	GRM219R71C104KA 01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Yageo	CC0805KRX7R7BB104	311-1142-2-ND	YES
451	C17, C18, C19, C22	4	33pF	08051A330JAT2A	AVX	CAP, CERM, 33 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	08051A330JAT2A	478-1281-2-ND	YES
452	C20, C23	2	10uF	GRM21BR70J106KE 76L	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro- Mechanics	CL21B106KQQNNNE	1276-1113-1-ND	YES
453	C21, C24	2	0.1uF	1206YC104KAT2A	AVX	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	1206YC104KAT2A	478-12852-2-ND	YES
454	D1, D2	2	4.3V	MMSZ4687-HE3-08	Vishay- Semiconductor	Diode, Zener, 4.3 V, 500 mW, AEC-Q101, SOD-123	SOD-123	Active	ROHS3 Compliant	Reach unaffected	Vishay Semiconductor Diodes Division	MMSZ4687-HE3-08	MMSZ4687-HE3- 08-ND	YES
455	J1, J2, J3, J4, J6	5		TSW-102-08-G-S-RA	Samtec	Header, 100mil, 2x1, Gold, R/A, TH	2x1 R/A Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-102-08-G-S-RA	SAM1039-02-ND	NO
456	J5	1		TSW-104-09-G-D-RA PHT0805Y1001BGT2	Samtec	Header, 100mil, 4x2, Gold, R/A, TH	4x2, R/A, TH	Active	ROHS3 Compliant	Reach unknown	Samtec Inc.	TSW-104-09-G-D-RA	TSW-104-09-G-D- RA-ND	NO
457	R1, R10, R23	3	1.00k	00	Vishay Sfernice	RES, 1.00 k, 0.1%, 0.06 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Vishay Sfernice	PHT0805Y1001BGT	PHTD-1.0KTR-ND	YES

458	R2, R3, R4, R5, R6, R7, R8, R9, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22	20	200k	ERJ-8ENF2003V	Panasonic	RES, 200 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-8ENF2003V	P200KFTR-ND	YES
459	R24, R28	2	3.00k	RG2012P-302-B-T5	Susumu Co Ltd	RES, 3.00 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-302-B-T5	RG20P3.0KBTR-ND	YES
460	R25, R26, R27	3	4.30k	RG2012P-432-B-T5	Susumu Co Ltd	RES, 4.30 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-432-B-T5	RG20P4.3KBTR-ND	YES
461	R29	1	3.32k	RR1220P-3321-D-M	Susumu Co Ltd	RES, 3.32 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-3321-D-M	RR12P3.32KDTR-ND	YES
462	R30	1	33.2k	RG2012P-3322-B-T5	Susumu Co Ltd	RES, 33.2 k, 0.1%, 0.125 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RG2012P-3322-B-T5	RG20P33.2KBTR-ND	YES
463	R31	1	100k	RR1220P-104-D	Susumu Co Ltd	RES, 100 k, 0.5%, 0.1 W, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Susumu	RR1220P-104-D	RR12P100KDTR-ND	YES
464	U1	1		AMC1311BDWVR	Texas Instruments	Precision, 2-V Input, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	AMC1311BDWVR	296-49549-2-ND	YES
465	U2, U4	2		TLV3502AID	Texas Instruments	4.5ns Rail-to-Rail Comparator, D0008A (SOIC-8)	D0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV3502AID	296-18301-5-ND	YES
466	U3	1		ISO7240CDWR	Texas Instruments	2.5 kVrms, 25 Mbps, 4-Channel 4/0 Digital Isolator, DW0016B (SOIC-16)	DW0016B	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	ISO7240CDWR	296-38555-2-ND	YES
467	U5	1		TLV71333PQDBVRQ1	Texas Instruments	Capacitor-Free, 150-mA, LDO Regulator w/ Foldback Current Limit, DBV0005A (SOT-23-5)	DBV0005A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TLV71333PQDBVRQ1	296-42365-2-ND	NO
468	Va1, Vb1, Vbus1, Vc1	4		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5002	36-5002-ND	NO
469	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A							

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**EVT_020E1
E1**

**EVT_020E1 REV
E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference							
476	IPCB1	1		TIDM-02009	Any	Printed Circuit Board								
477	C1, C4, C49, C50, C53, C61, C63, C69, C70	9	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM188R72A104KA35D	490-3285-2-ND	YES
478	C2, C11	2	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B104KA8NNNC	1276-1006-1-ND	YES
479	C3, C41, C42	3	220pF	GRM188R72A221KA01D	MuRata	CAP, CERM, 220 pF, 100 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B221KC85PNC	1276-6988-1-ND	YES

480	C5, C10	2	2200pF	DE6E3KJ222MN3A	MuRata	CAP, CERM, 2200 pF, 300 V, +/- 20%, E, TH, 2-Leads, Body 9x7mm, Pin Spacing 7.5mm	TH, 2-Leads, Body 9x7mm, Pin Spacing 7.5mm	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	DE6E3KJ222MN3A	490-11080-3-ND	YES
481	C6, C7, C12, C13	4	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	06035A101JAT2A	478-1175-2-ND	YES
482	C8	1	0.01uF	R73PI21004000J	Kemet	CAP, Film, 0.01 uF, 630 V, +/- 5%, AEC-Q200 Grade 2, TH	18x5mm	Active	ROHS3 Compliant	Reach unaffected	KEMET	R73PI21004000J	399-12529-ND	NO
483	C9	1	10uF	B32926C3106K	TDK	CAP, Film, 10 uF, 630 V, +/- 10%, TH	B32926_42.5mm	Active	ROHS3 Compliant	Reach unaffected	EPCOS - TDK Electronics	B32926C3106K000	495-4794-ND	NO
484	C14, C15, C28, C29, C30, C16, C17, C18, C19, C20, C21, C22, C23, C32, C33, C34, C35, C36, C37, C38	5	10uF	12K	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X7R, 1210	1210	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL32B106KLULNNE	1276-3323-2-ND	YES
485		15	1500pF	12061C152KAT2A	AVX	CAP, CERM, 1500 pF, 100 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	12061C152KAT2A	478-1518-2-ND	YES
486	C24, C25, C26, C27	4	390uF	B41896C7397M000	TDK	CAP, AL, 390 uF, 35 V, +/- 20%, 0.055 ohm, AEC-Q200 Grade 1, TH	D12.5xL20mm	Active	ROHS3 Compliant	Reach unaffected	EPCOS - TDK Electronics	B41896C7397M	B41896C7397M-ND	NO
487	C39, C40, C47, C56, C57, C58, C59	7	0.1uF	CEU4J2X7R1H104K125AE	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CEU4J2X7R1H104K125AE	445-7856-2-ND	YES
488	C43, C45, C48, C60, C62	5	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL21B106KOQNNNE	1276-2872-2-ND	YES
489	C46, C87, C88, C89	4	1uF	2220Y6300105KXTWS2	Knowles Capacitors	CAP, CERM, 1 uF, 630 V, +/- 10%, X7R, AEC-Q200 Grade 1, 2220	2220	Active	ROHS3 Compliant	Reach unknown	Knowles Syfer	2220Y6300105KXTWS2	2220Y6300105KXTWS2TR-ND	YES
490	C51	1	0.33uF	C3216X7R2A334K130AA	TDK	CAP, CERM, 0.33 uF, 100 V, +/- 10%, X7R, 0AA		Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	C3216X7R2A334K130AA	445-4464-2-ND	YES
491	C52, C54, C55	3	220pF	C0603X221K5RACTU	Kemet	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	KEMET	C0603X221K5RACTU	399-5342-2-ND	YES
492	C64	1	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL10B103KB8NNNC	1276-1009-1-ND	YES
493	C65, C67, C73, C75	4	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R1E104K080AA	445-5667-2-ND	YES
494	C66, C68, C74, C76	4	4.7uF	GRM319R61H475KA12D	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X5R, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRM319R61H475KA12D	490-14384-2-ND	YES
495	C83, C84	2	120uF	LGN2X121MELC35	Nichicon	CAP, AL, 120 uF, 600 V, +/- 20%, TH	D35xL37mm	Active	ROHS3 Compliant	Reach unaffected	EPCOS - TDK Electronics	B43541C8127M000	490-14384-2-ND	NO
496	D1, D22	2	Red	150080SS75000	Würth Elektronik	LED, Red, SMD	5	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	150080SS75000	732-4985-2-ND	YES
497	D2	1	60V	LMB16S-TP	Micro Commercial Components	Diode, Schottky-Bridge, 60 V, 1 A, TO269AA	TO269AA	Active	ROHS3 Compliant	Reach unknown	Micro Commercial Co	LMB16S-TP	353-LMB16S-TPCT-ND	YES
498	D3, D4, D18, D19	4	40V	CUS05S40,H3F	Toshiba	Diode, Schottky, 40 V, 0.5 A, SOD-323	SOD-323	Active	RoHS Compliant	Reach unknown	Toshiba Semiconductor and Storage	CUS05S40,H3F	CUS05S40H3FTR-ND	YES
499	D5, D20	2		C6D10065A	Wolfspeed	Diode Silicon Carbide Schottky 650V 37A (DC) Through Hole TO-220-2	TO-220-2	Active	RoHS Compliant	Reach unknown	Cree/WolfSpeed	C6D10065A	1697-C6D10065A-ND	NO

500	D6, D7, D8, D9, D10, D11, D12, D13	8		TPSMB51CA	Littelfuse	70.1V Clamp 8.7A Ipp Tvs Diode Surface Mount DO-214AA (SMBJ)	DO214A A	Active	ROHS3 Compliant	Reach unknown	Littelfuse Inc.	TPSMB51CA	F6333TR-ND	YES
501	D14, D15, D16, D17	4	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123	Active	ROHS3 Compliant	Reach unaffected	Diodes Incorporated	1N4148W-7-F	1N4148W-FDICT-ND	YES
502	D21, D27	2	40V	MBR0540T1G	ON Semiconductor	Diode, Schottky, 40 V, 0.5 A, SOD-123	SOD-123	Active	ROHS3 Compliant	Reach unaffected	ON Semiconductor	MBR0540T1G	MBR0540T1GOS-TR-ND	YES
503	D23, D24, D25, D26	4	Green	LTST-C193KGKT-5A	Lite-On	LED, Green, SMD	1.6x0.8mm	Active	ROHS3 Compliant	Reach unknown	Lite-On Inc.	LTST-C193KGKT-5A	160-1828-2-ND	YES
504	F1	1		3101.0045	Schurter	FUSE HLDR CARTRIDGE 500V 16A PCB	PTH_FU SEHOLDERS	Active	ROHS3 Compliant	Reach unaffected	Schurter Inc.	3101.0045	486-1160-ND	NO
505	J1, J2	2		691311500102	Würth Elektronik	Terminal Block, 2 Pos, 5.08mm, Tin, TH	5.08mm, TH	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	691311500102	732-2058-ND	NO
506	J3	1		HSEC8-160-01-L-DV-A-BL	Samtec	C2000 controlCARD-120HSEC connector, SMT	pin numbering	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HSEC8-160-01-L-DV-A-BL	SAM9083-ND	YES
507	J4, J5, J6, J7, J9, J10, J11, J12	8		0312-0-15-15-34-27-10-0	Mill-Max		Receptacle	Active	ROHS3 Compliant	Reach unaffected	Mill-Max Manufacturing Corp.	0312-0-15-15-34-27-10-0	ED11311-ND	NO
508	J8	1		FTR-110-51-S-D-06	Samtec	Header, 1.27mm, 10x2, Tin, SMT	10x2, SMT	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	FTR-110-51-S-D-06	SAM8792-ND	YES
509	J13	1		TSM-105-02-L-SV	Samtec	Header, 2.54mm, 5x1, Gold with Tin tail, SMT	2.54mm, 5x1, SMT	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSM-105-02-L-SV	SAM12233-ND	YES
510	J14	1		HSEC8-130-01-L-DV-A	Samtec	C2000 controlCARD-180HSEC (60-pin add-on) connector, SMT	pin numbering	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	HSEC8-130-01-L-DV-A	SAM9080-ND	YES
511	J15	1			Samtec	MMCX Connector Jack, Female Socket 50Ohm Through Hole, Right Angle Solder	PTH_CO NN_JACK	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	CC03R-2830-01-G	SAM13326TR-ND	YES
512	J16	1		FTSH-113-01-F-DV-K	Samtec		HDR26	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	FTSH-113-01-F-DV-K	SAM9460-ND	YES
513	J17	1		TSW-103-07-G-D	Samtec	Header, 100mil, 3x2, Gold, TH	3x2 Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-103-07-G-D	SAM1028-03-ND	NO
514	J18	1		TSW-105-07-G-S	Samtec	Header, 100mil, 5x1, Gold, TH	5x1 Header	Active	ROHS3 Compliant	Reach unaffected	Samtec Inc.	TSW-105-07-G-S	SAM1029-05-ND	NO
515	J20, J21	2		215307-3	TE Connectivity	Receptacle, 2.54mm, 3x2, Tin, TH	2.54mm, 3x2, TH	Active	RoHS Compliant	Reach unknown	TE Connectivity AMP Connectors	215307-3	A106656-ND	NO
516	L1	1		VI-19158A	Cyntec		PTH_IND UCTOR_47MM_39MM							
517	L2	1	4.7uH	SER2915H-472KL	Coilcraft	Fixed Inductor of Cyntec Inductor, Shielded E Core, Ferrite, 4.7 uH, 30 A, 0.00186 ohm, SMD	29.7x15.3x6x27.94mm							

518	L3, L4, L5, L6	4	120 ohm	74279262	Würth Elektronik	Ferrite Bead, 120 ohm @ 100 MHz, 0.5 A, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	74279262	732-1594-1-ND	YES
519	L7	1	2.5mH	7448052502	Würth Elektronik	CMC 2.5MH 25A 2LN TH	37x23mm	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	7448052502	732-5600-ND	NO
520	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650 SiC N-Channel MOSFET, 35 A, 1000 V C3M, 4-Pin	0.200 inch	Active	Request Inventory Verification	Reach unknown	Brady Corporation	THT-14-423-10	2267-THT-14-423-10-ND	NO
521	Q1, Q2, Q16, Q17	4		C3M0065100K	Wolfspeed	TO-247	TO247-4	Active	RoHS Compliant	Reach unknown	Cree/Wolfspeed	C3M0065100K	C3M0065100K-ND	NO
522	R1	1	13.0k	RC0603FR-0713KL	Yageo America	RES, 13.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0713KL	311-13.0KHRCT-ND	YES
523	R2, R3, R4, R5, R15, R17, R18, R20	8	10.0	A	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310R0FKEA	541-10.0HCT-ND	YES
524	R6, R7, R8, R9	4		VSML3923S9-0M50F	Cyntec	500 µOhms ±1% 9W Chip Resistor Nonstandard Current Sense, Pulse Withstanding	SMT_10 MM0_5M M75	Active	ROHS3 Compliant	Reach unknown	Delta Electronics/Cyntec	VSML3923S9-0M50F	2037-VSML3923S9-0M50FTR-ND	YES
525	R10, R13	2	0	A	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06030000Z0EA	541-0.0GCT-ND	YES
526	R12, R68, R74, R79, R83, R87, R91	7	0	RCS06030000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCS06030000Z0EA	541-2779-1-ND	YES
527	R14, R43	2	100k	A	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale Panasonic Electronic Components	CRCW0603100KFKEA	541-100KHCT-ND	YES
528	R16	1	100	ERJ-3EKF1000V	Panasonic	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF1000V	P100HTR-ND	YES
529	R19, R39	2	4.70k	RC0603FR-074K7L	Yageo	RES, 4.70 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-074K7L	311-4.70KHRTR-ND	YES
530	R21, R22, R64, R65	4	5.11	A	Vishay-Dale	RES, 5.11, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06035R11FKEA	541-5.11HHCT-ND	YES
531	R23, R24, R69, R70	4	1.00	RC0603FR-071RL	Yageo America	RES, 1.00, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-071RL	311-1.00HRCT-ND	YES
532	R25, R26, R71, R72, R157, R158, R159, R160, R172, R173, R174, R175	12	10.0k	A	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW060310K0FKEA	541-10.0KHCT-ND	YES
533	R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55	24	30	CRCW201030R0JNEF	Vishay-Dale	RES, 30, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW201030R0JNEF	541-30.0WCT-ND	YES
534	R40, R59	2	49.9	RC0603FR-0749R9L	Yageo	RES, 49.9, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0749R9L	311-49.9HRTR-ND	YES
535	R41, R56, R67	3	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-071KL	311-1.00KHRTR-ND	YES
536	R42, R57, R88, R95, R96, R140	6	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0710KL	311-10.0KHRTR-ND	YES
537	R58	1	10.0	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0710RL	311-10.0HRTR-ND	YES
538	R60, R61	2	20.0	RC1206FR-0720RL	Yageo America	RES, 20.0, 1%, 0.25 W, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC1206FR-0720RL	311-20.0FRCT-ND	YES
539	R62	1	5.36	A	Vishay-Dale	RES, 5.36, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW12065R36FKEA	541-5.36FFCT-ND	YES

540	R63, R86	2	2.15k	RC0603FR-072K15L	Yageo	RES, 2.15 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-072K15L	311-2.15KHRTR-ND	YES
541	R66	1	22.0k	ERJ-3EKF2202V	Panasonic	RES, 22.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF2202V	P22.0KHTR-ND	YES
542	R73	1	1.05k	RC0603FR-071K05L	Yageo	RES, 1.05 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-071K05L	311-1.05KHRTR-ND	YES
543	R75	1	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Bourns Inc.	CR0603-FX-4991ELF	CR0603-FX-4991ELFTR-ND	YES
544	R76, R77, R78	3	845k	ERJ-8ENF8453V	Panasonic	RES, 845 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-8ENF8453V	P845KFTR-ND	YES
545	R80	1	1.40k	ERJ-8ENF1401V	Panasonic	RES, 1.40 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-8ENF1401V	P1.40KFTR-ND	YES
546	R81, R94	2	15.0k	RC0603FR-0715KL	Yageo	RES, 15.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-0715KL	311-15.0KHRTR-ND	YES
547	R82, R84, R85, R93	4	4.64k	RC0603FR-074K64L	Yageo	RES, 4.64 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-074K64L	311-4.64KHRTR-ND	YES
548	R90	1	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-3EKF1002V	P10.0KHTR-ND	YES
549	R152, R153, R155, R156, R168, R169, R170, R171	8	2.21	CRCW06032R21FKEA	Vishay-Dale	RES, 2.21, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06032R21FKEA	541-2.21HHCT-ND	YES
550	SR1, SR2, SR3, SR4, SR5, SR6, SR7, SR8	8		IPP120N08S403AKSA1	Infineon Technologies	MOSFET N-CH TO220-3	TO220	Active	ROHS3 Compliant	Reach unaffected	Infineon Technologies	IPP120N08S403AKSA1	IPP120N08S403AKSA1-ND	NO
551	T1, T8	2	8.5mH	CST2010-100LB	Coilcraft	Current Sense Transformer, 8.5 mH, 254 Vµs, 40 A, AEC-Q200 Grade 1, SMT	Coilcraft Transformer							
552	T2, T3, T4, T5, T7, T9	6		CB125-14-QY	Panduit	Terminal 125A Lug	Lug	Active	ROHS3 Compliant	Reach unknown	Panduit Corp	CB125-14-QY	298-11598-ND	NO
553	T6	1	10uH	7G08B-100M-R	Sagami Elec Co Ltd	Coupled inductor, 10 µH, 4.3 A, 0.04 ohm, SMD	8x9x8mm Inductor, SMT							
554	T10	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm Red	Active	ROHS3 Compliant	Reach unaffected	Würth Elektronik	760390014	732-4458-2-ND	YES
555	TP1	1		5005	Keystone	Test Point, Compact, Red, TH	Compact Testpoint Blue	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5005	36-5005-ND	NO
556	TP2, TP3	2		5122	Keystone	Test Point, Compact, Blue, TH	Compact Testpoint	Active	ROHS3 Compliant	Reach unaffected	Keystone Electronics	5122	36-5122-ND	NO
557	U1	1		OPA836IDBVR	Texas Instruments	Very Low Power, Rail to Rail Out, Negative Rail In, VFB Operational Amplifier, 2.5 to 5.5 V, -40 to 125 degC, 6-pin SOT23 (DBV6), Green (RoHS & no Sb/Br)	DBV0006 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	OPA836IDBVR	296-44388-2-ND	YES

558	U2	1		TPS79633DCQ	Texas Instruments	Single Output High PSRR LDO, 1 A, Fixed 3.3 V Output, 2.7 to 5.5 V Input, 6-pin SOT-223 (DCQ), -40 to 125 degC, Green (RoHS & no Sb/Br)	DCQ0006 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TPS79633DCQ	296-27109-5-ND	YES
559	U3	1		TPS7B6950DBVR	Texas Instruments	40-V Ultralow-Iq Low-Dropout Regulator, DBV0005A (SOT-23-5)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TPS7B6950DBVR	296-47247-2-ND	YES
560	U4	1		SN6501QDBVRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	SN6501QDBVRQ1	296-36967-2-ND	NO
561	U5	1		AMC1311BDWVR	Texas Instruments	Precision, 2-V Input, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV000 8A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	AMC1311BDWVR	296-49549-2-ND	YES
562	U6	1		OPA365AIDBVT	Texas Instruments	50 MHz, Low-Noise, Single-Supply Rail-to-Rail Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	DBV0005 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	OPA365AIDBVT	296-26283-2-ND	YES
563	U7	1		LM35DT/NOPB	Texas Instruments	Temperature Sensor Analog, Local 0°C ~ 100°C	TO-220-3	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	LM35DT/NOPB	LM35DT/NOPB-ND	NO
564	U8	1		LM35DT/NOPB	Texas Instruments	Precision Centigrade Temperature Sensor, 3-pin TO-220, Pb-Free	NEB0003 F	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	LM35DT/NOPB	LM35DT/NOPB-ND	NO
565	U9	1		INA240A2PWR	Texas Instruments	High/Low Side, Bi-Directional Zero-Drift Current Sense Amp w/ Enhanced PWM Rejection, PW0008A (TSSOP-8)	PW0008 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	INA240A2PWR	296-45089-2-ND	YES
566	U10	1		PINA293A3QDBVRQ1	Texas Instruments	Automotive, 110-V Common-Mode, High-Voltage, High-Bandwidth, Zero-Drift, Unidirectional, Current-Sense Amplifier, DBV0005A (SOT-23-5)	DBV0005 A							
567	U14, U15, U17, U18	4		UCC27524AQDRQ1	Texas Instruments	Automotive grade Dual 5-A High-Speed Low-Side Gate Driver With Negative Input Voltage Capability, D0008A (SOIC-8)	D0008A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	UCC27524AQDRQ1	296-41041-2-ND	NO
568	C31	0	1500pF	12061C152KAT2A	AVX	CAP, CERM, 1500 pF, 100 V, +/- 10%, X7R, 1206	1206	Active	ROHS3 Compliant	Reach unaffected	AVX Corporation	12061C152KAT2A	478-1518-2-ND	YES
569	C44, C71, C72	0	390uF	B41896C7397M000	TDK	CAP, AL, 390 uF, 35 V, +/- 20%, 0.055 ohm, AEC-Q200 Grade 1, TH	D12.5xL2 0mm	Active	ROHS3 Compliant	Reach unaffected	EPCOS - TDK Electronics	B41896C7397M	B41896C7397M-ND	NO
570	C86	0	10uF	GRM32ER7YA106KA	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X7R, 1210	1210	Active	ROHS3 Compliant	Reach unaffected	Samsung Electro-Mechanics	CL32B106KLULNNE	1276-3323-2-ND	YES

571	R11	0		VSME1518SV-M125F	Cyntec	125uOhm, 15W, high power, low ESL current shunt resistor	SMT_RE S_15MM 0_18MM0									
572	R89	0	6.49k	RC0603FR-076K49L	Yageo	RES, 6.49 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603FR-076K49L	311-6.49KHRTR-ND	YES		
573	R92	0	0	RCS06030000Z0EA	Vishay-Dale	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	RCS06030000Z0EA	541-2779-1-ND	YES		

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**EVT_021E1
E1**

**EVT_021E1 REV
E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package Reference								
580	IPC B1	1		TIDM-02009	Any	Printed Circuit Board									
581	C1, C4, C10, C13, C15, C18, C24, C27, C30, C38, C47, C54, C59	13	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2X7R1E104K080AA	445-5667-2-ND	YES	
582	C3, C17	2	10uF	GRT188C81A106ME13D	MuRata	CAP, CERM, 10 µF, 10 V,+/- 20%, X6S, AEC-Q200 Grade 2, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRT188C81A106ME13D	490-12283-2-ND	YES	
583	C7, C9, C21, C23, C29, C37, C46, C53	8	4.7uF	GRT21BR61H475KE13L	MuRata	CAP, CERM, 4.7 µF, 50 V,+/- 10%, X5R, AEC-Q200 Grade 3, 0805	0805	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GRT21BR61H475KE13L	490-12394-2-ND	YES	
584	C31, C39, C48, C55	4	0.01uF	CGA3E2C0G1H103J080AA	TDK	CAP, CERM, 0.01 µF, 50 V,+/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	TDK Corporation	CGA3E2C0G1H103J080AA	445-6916-2-ND	YES	
585	C35, C36	2	100pF	GCM1885C2A101JA16D	MuRata	CAP, CERM, 100 pF, 100 V,+/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Murata Electronics	GCM1885C2A101JA16D	490-4771-2-ND	YES	
586	C45	1	2200pF	GRM188R71C222KA01D	MuRata	CAP, CERM, 2200 pF, 16 V,+/- 10%, X7R, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Walsin Technology	0201B222K160CT	1292-1123-1-ND	YES	
587	D1, D3	2	70V	BAV70-E3-08	Vishay-Semiconductor	Diode, Switching, 70 V, 0.25 A, AEC-Q101, SOT-23	SOT-23 Header, 2.54mm, 3x2, R/A, TH	Active	ROHS3 Compliant	Reach unaffected	Vishay Semiconductor Diodes Division	BAV70-E3-08	BAV70-E3-08CT-ND	YES	
588	J1	1		M20-9950345	Harwin	Header, 2.54mm, 3x2, Gold, R/A, TH	TH	Active	ROHS3 Compliant	Reach unaffected	Harwin Inc.	M20-9950345	952-2092-ND	NO	
589	J3, J5, J7, J9	4		3620-2-32-15-00-00-08-0	Mill-Max			Active	ROHS3 Compliant	Reach unaffected	Mill-Max Manufacturing Corp.	3620-2-32-15-00-00-08-0	ED1278-ND	NO	
590	R1, R7	2	4.70k	ERJ-P06F4701V	Panasonic	RES, 4.70 k, 1%, 0.5 W, AEC-Q200 Grade 0, 0805	0805	Active	ROHS3 Compliant	Reach unaffected	Panasonic Electronic Components	ERJ-P06F4701V	P16073TR-ND	YES	
591	R3, R9	2	3.01k	RT0603DRE073K01L	Yageo America	RES, 3.01 k, 0.5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0603DRE073K01L	311-2560-1-ND	YES	
592	R5, R11	2	4.99k	RT0603DRE074K99L	Yageo America	RES, 4.99 k, 0.5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RT0603DRE074K99L	311-2608-1-ND	YES	

593	R13, R15	2	0	CRCW06030000Z0E A	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603 RES, 5.1 k, 5%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06030000Z0EA	541-0.0GCT-ND 311-5.1KGRCT- ND	YES YES
594	R17	1	5.1k	RC0603JR-075K1L CRCW06033K09FKE	Yageo America	RES, 3.09 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unaffected	Yageo	RC0603JR-075K1L	ND	YES
595	R19	1	3.09k	A	Vishay-Dale	RES, 3.09 k, 1%, 0.1 W, 0603	0603	Active	ROHS3 Compliant	Reach unknown	Vishay Dale	CRCW06033K09FKEA	541-3.09KHCT-ND	YES
596	T1, T3	2		750317722	Würth Elektronik	Transformer, 320 uH, SMD	mm							
597	U1, U5	2		SN6505DQDBVRQ1	Texas Instruments	SN6505DQDBVRQ1, DBV0006A (SOT-23-6) Automotive Catalog Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBV0006 A	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	SN6505DQDBVRQ1	296- SN6505DQDBVR Q1TR-ND	YES
598	U3, U7	2		TL431AQDBZRQ1	Texas Instruments	Isolated Dual-Channel Gate Driver with Enable, DWK0014A (SOIC-14) Fiducial mark. There is nothing to buy or mount.	DBZ0003 A	Active	ROHS3 Compliant	Reach unaffected	Texas Instruments	TL431AQDBZRQ1	296-21853-2-ND	NO
599	U9	1		UCC21530QDWKRQ 1	Texas Instruments	Isolated Dual-Channel Gate Driver with Enable, DWK0014A (SOIC-14) Fiducial mark. There is nothing to buy or mount.	DWK001 4A	Active	ROHS3 Compliant	Reach unknown	Texas Instruments	UCC21530QDWKQ1	296- UCC21530QDWK Q1-ND	NO
600	FID1, FID2, FID3	0		N/A	N/A		N/A							

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