

ISE4038 REV E3 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC B1	1		ISE4038	Any	Printed Circuit Board	
2	C2	1	0.01uF	C1608X7R2A103K	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
3	C3	1	0.01uF	C1608X7R2A103K	TDK	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	0603
4	C4	1	1000pF	C1005X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
5	C6	1	10uF	GRM31CR71C106KAC7L	MuRata	CAP, CERM, 10uF, 16V, +/-10%, X7R, 1206	1206
6	C7, C10	2	0.01uF	C0603C103J5RACTU	Kemet	CAP, CERM, 0.01uF, 50V, +/-5%, X7R, 0603	0603
7	C8	1	0.39uF	GRM31MR71H394KA01L	MuRata	CAP, CERM, 0.39uF, 50V, +/-10%, X7R, 1206	1206
8	C9	1	0.33uF	12065C334KA2A	AVX	CAP, CERM, 0.33uF, 50V, +/-10%, X7R, 1206	1206
9	C11	1	1uF	GRM32RR71H105KA01L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 1210	1210
10	C12, C13	2	0.1uF	C0603X104K4RACTU	Kemet	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0603	0603
11	C14, C17	2	2200pF	06031C222JA2A	AVX	CAP, CERM, 2200 pF, 100 V, +/- 5%, X7R, 0603	0603
12	C15	1	0.013uF	GRM3195C1H1133JA01D	MuRata	CAP, CERM, 0.013 uF, 50 V, +/- 5%, C0G/NP0, 1206	1206
13	C16	1	7500pF	GRM2195C1H752JA01D	MuRata	CAP, CERM, 7500 pF, 50 V, +/- 5%, C0G/NP0, 0805	0805
14	C18	1	0.1uF	C1608X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
15	C19	1	4700pF	GRM188R71H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	0603
16	C20	1	2400pF	GRM1885C1H242JA01D	MuRata	CAP, CERM, 2400 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
17	C21	1	0.033uF	GRM188R71E333KA01D	MuRata	CAP, CERM, 0.033 uF, 25 V, +/- 10%, X7R, 0603	0603
18	C22	1	0.015uF	C0603C153K1RACTU	Kemet	CAP, CERM, 0.015 uF, 100 V, +/- 10%, X7R, 0603	0603
19	C23	1	0.1uF	06033C104JA2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
20	C24	1	2200pF	C1005X7R1H222K	TDK	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0402	0402
21	C26, C29, C32	3	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0402	0402
22	C27, C30	2	1uF	C1608X7R1C105K	TDK	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603
23	C28, C31	2	10uF	C2012X7R0J106M125AB	TDK	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X7R, 0805	0805
24	C33	1	2200pF	C1005X7R1H222K	TDK	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0402	0402
25	C34, C35	2	18pF	GRM1885C2A180JA01D	MuRata	CAP, CERM, 18pF, 100V, +/-5%, C0G/NP0, 0603	0603
26	D2, D3	2	0.65V	ZHCS3501A	Diodes Inc.	Diode, Schottky, 40V, 0.35A, SOD-523	SOD-523
27	D5	1	36V	SMAJ36CA	Littelfuse	Diode, TVS, Bi, 36 V, 400 W, SMA	SMA
28	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
29	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
30	J1	1		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
31	J2	1		SBH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Header (shrouded), 100 mil, 7x2, Gold plated, TH	7x2 Shrouded Header
32	L2	1	330 ohm	BLM18SG331T1N1D	MuRata	1.5A Ferrite Bead, 330 ohm @ 100MHz, SMD	0603
33	Q1	1	0.2V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
34	Q2, Q3	2	25V	FDV303N	Fairchild Semiconductor	MOSFET, N-CH, 25 V, 0.68 A, SOT-23	SOT-23
35	R1, R10	2	20.0	CRCW0805020R0FKEA	Vishay-Dale	RES, 20.0, 1%, 0.125 W, 0805	0805
36	R2, R18, R19	3	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
37	R3	1	200	CRCW0603200RJNEA	Vishay-Dale	RES, 200, 5%, 0.1 W, 0603	0603
38	R4, R6, R7, R9, R22, R24	6	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
39	R5	1	21.5k	CRCW060321K5FKEA	Vishay-Dale	RES, 21.5 k, 1%, 0.1 W, 0603	0603
40	R8	1	12.0k	ERJ-3EKF1202V	Panasonic	RES, 12.0 k, 1%, 0.1 W, 0603	0603
41	R11, R14, R15, R17	4	10.5k	RG1608P-1052-B-T5	Susumu Co Ltd	RES, 10.5 k, 0.1%, 0.1 W, 0603	0603
42	R12, R16	2	5.76k	RG2012P-5761-B-T5	Susumu Co Ltd	RES, 5.76 k, 0.1%, 0.125 W, 0805	0805
43	R13	1	75.0k	RG1608P-753-B-T5	Susumu Co Ltd	RES, 75.0 k, 0.1%, 0.1 W, 0603	0603
44	R20	1	10k	CRCW040210K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
45	R25	1	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5 k, 1%, 0.063 W, 0402	0402
46	R27, R31, R32	3	100k	RT0603BRD07100KL	Yageo America	RES, 100k ohm, 0.1%, 0.1W, 0603	0603
47	R28, R29	2	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99k ohm, 1%, 0.063W, 0402	0402
48	R30	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
49	R33	1	47.5k	CRCW060347K5FKEA	Vishay-Dale	RES, 47.5k ohm, 1%, 0.1W, 0603	0603
50	S1, S2	2		4-1437565-1	TE Connectivity	Switch, Tactile, SPST-NO, 0.05A, 12V, SMT	SW, SPST 6x6 mm
51	TP3	1	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
52	TP4, TP15, TP16, TP17	4	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
53	TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14	10	Yellow	5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
54	U1	1		DAC161S997RGH	Texas Instruments	16-bit SPI Programmable DAC for 4-20mA Loops, RGH0016A	RGH0016A
55	U2	1		TPS7A4901DGN	Texas Instruments	+36V, +150mA, Ultralow-Noise, Positive LINEAR REGULATOR, DGN0008D	DGN0008D
56	U3	1		LMV342MM	Texas Instruments	2.7V, 125°C, R-R Out Dual Op Amp, DGK0008A	DGK0008A
57	U4, U6, U7, U8, U9, U10	6		TPD1E10B06DPYR	Texas Instruments	ESD in 0402 Package with 10 pF Capacitance and 6 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br)	DPY0002A
58	U5	1		OPT3001DNP	Texas Instruments	Ambient Light Sensor, DNP0006A	DNP0006A
59	U11	1		HDC1010YPAR	Texas Instruments	Low Power, High Accuracy Digital Humidity Sensor with Temperature Sensor, YPA0008AGAE	YPA0008AGAE
60	U12	1		MSP430FR5969IRGZ	Texas Instruments	Mixed Signal Microcontroller, RGZ0048B	RGZ0048B
61	Y1	1		NX3225GD-8MHZ-STD-CRA-3	NDK	Crystal, 8MHz, 5pF, SMD	3.2x1.0x2.5mm
62	C1	0	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0402	0402
63	D4	0	1.8V	MMSZ4678T1G	ON Semiconductor	Diode, Zener, 1.8 V, 500 mW, SOD-123	SOD-123
64	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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