

TIDA-00764 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCBT			30A-0704	TK	Printed Circuit Board	
2	C1, C2, C3, C4	4	0.1µF	C10050R1H104K050BB	TK	CAP, CERAM, 0.1 µF, 50 V, +/-10%, X7R, 0402	0402
3	C5	1	1000pF	C08050R1000V48E	Passive Networks	CAP, CERAM, 1000 pF, 200 V, +/-10%, X7R, 1206, 100	1206-100
4	C6	1	100µF	EEA1Y1M470	Passive Networks	CAP, AL, 47 µF, 35 V, +/-20%, TH	CAPAL_5x11mm
5	C7, C13, C14, C15, C16	5	22µF	GRM31CR7A220KE15L	Murata	CAP, CERAM, 22 µF, 10 V, +/-10%, X7R, 1206	1206
6	C8, C18, C19, C41, C42	5	10µF	C00120R1A10K125AC	TK	CAP, CERAM, 10 µF, 10 V, +/-10%, X7R, 0605	0605
7	C9, C12	2	2.2µF	GRM31CR7H220KABEL	Murata	CAP, CERAM, 2.2 µF, 50 V, +/-10%, X7R, 1206	1206
8	C10, C17, C36, C38, C37, C38, C39, C20, C21	9	0.1µF	C10050R1C104K	TK	CAP, CERAM, 0.1 µF, 10 V, +/-10%, X7R, 0603	0603
9	C30, C28, C29	2	1µF	C10050G1H105J	TK	CAP, CERAM, 1 µF, 50 V, +/-5%, COG/NPO, 0603	0603
10	C16, C18, C21	3	2.2µF	GRM18BR7A220KE15D	Murata	CAP, CERAM, 2.2 µF, 10 V, +/-10%, X7R, 0603	0603
11	C22	1	0.001µF	GRM18BR7H000K040D	Murata	CAP, CERAM, 0.001 µF, 50 V, +/-10%, X7R, 0603	0603
12	C23	1	0.01µF	GRM18BR7H001K040D	Murata	CAP, CERAM, 0.01 µF, 50 V, +/-10%, X7R, 0603	0603
13	C24	1	0.001µF	GRM18BR7H000K040D	Murata	CAP, CERAM, 0.001 µF, 50 V, +/-10%, X7R, 0603	0603
14	C25, CMCH1, C26, CMCH2, C27, CMCH3, C28, CMCH4, C29, CMCH5, C30, CMCH6, C31, CMCH7, C32, CMCH8, C33, CMCH9, C34, CMCH0	11	0.1µF	C10050R1H104K	TK	CAP, CERAM, 0.1 µF, 50 V, +/-10%, X7R, 0603	0603
15	C35, CMCH1, C36, CMCH2, C37, CMCH3, C38, CMCH4, C39, CMCH5, C40, CMCH6, C41, CMCH7, C42, CMCH8, C43, CMCH9	11	1µF	C10050R1C100K050AC	TK	CAP, CERAM, 1 µF, 10 V, +/-10%, X7R, 0603	0603
16	C27, CMCH1, C27, CMCH2, C27, CMCH3, C28, CMCH4, C29, CMCH5, C30, CMCH6, C31, CMCH7, C32, CMCH8, C33, CMCH9	8	1000pF	C0805C102BRACU	Kemet	CAP, CERAM, 1000 pF, 630 V, +/-5%, X7R, 0605	0605
17	C38, CMCH1, C38, CMCH2, C38, CMCH3, C38, CMCH4, C39, CMCH5, C40, CMCH6, C41, CMCH7, C42, CMCH8, C43, CMCH9	8	0.01µF	C10050R2A103K	TK	CAP, CERAM, 0.01 µF, 100 V, +/-10%, X7R, 0603	0603
18	C44	1	100µF	C10050G1H101J	TK	CAP, CERAM, 100 µF, 50 V, +/-5%, COG/NPO, 0603	0603
19	C45	1	0.001µF	C10050G1H101J	TK	CAP, CERAM, 0.001 µF, 50 V, +/-5%, COG/NPO, 0603	0603
20	D1, R4	1	10k	10K1000-F	Diodes Inc	Diode, Schottky, 10V, 10mA, SOD323	SOD323
21	D2, D3	2	18V	MMSZ4301TD	CR Semiconductors	Diode, Zener, 18 V, 500 mW, SOD-123	SOD-123
22	D4	2	50V	50V050-F	Diodes Inc	Diode, Schottky, 50 V, 0.5 A, SOD-123	SOD-123
23	D7, CMCH1, D7, CMCH2, D7, CMCH3, D7, CMCH4, D10, CMCH1, D10, CMCH2, D10, CMCH3, D10, CMCH4	9	180V	SM180CLA	STMicroelectronics	Diode, TVS, Bi, 30 V, 600 W, SMB	SMB
24	D8, CMCH1, D8, CMCH2, D8, CMCH3, D8, CMCH4, D11, NCMCH1, D11, NCMCH2, D11, NCMCH3, D11, NCMCH4	8	Blue	LB Q392-LN2-35-1	OSRAM	LED, Blue, SMD	BLUE 0603 LED
25	D9, CMCH1, D9, CMCH2, D9, CMCH3, D9, CMCH4, D12, NCMCH1, D12, NCMCH2, D12, NCMCH3, D12, NCMCH4	8	80V	SM8180CLA	STMicroelectronics	Diode, TVS, Bi, 30 V, 600 W, SMB	SMB
26	FE1, FE2, FE3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount	N/A
27	F1	1		SPH2123-Q3B-F-LF	Allegro Electronics	Female Connector, 2.54mm, 29x, TH	Female Connector, 2.54mm, 29x, TH
28	F2	1		F-1462B3-3	TE Connectivity	Header, 100mil, 3x1, TH, TH	Header, 3x1, 100mil, TH
29	F4	1		1844533	Phoenix Contact	Header (Shrouded), 3.5mm, 14x1, TH, RA, TH	Header (Shrouded), 3.5mm, 14x1, RA, TH
30	K1, CMCH1, K1, CMCH2, K1, CMCH3, K1, CMCH4, K2, NCMCH1, K2, NCMCH2, K2, NCMCH3, K2, NCMCH4	8		CP1017N	SO/S	Relay, SPST-NO (1 Form A), 0.1 A, 1.2 VDC, SMD	4x06x3.81mm
31	R1, R2, R3, R4, R13, R14, R15	7	47k	CRW040247K09JED	Vishay Dale	RES, 47 k, 5%, 0.063 W, 0402	0402
32	R5, R6, R7, R8, R9, R10, R11, R12, R24, R33, R41, R42	12		CRW060300000002EA	Vishay Dale	RES, 0, 5%, 0.1 W, 0603	0603
33	R16, R17	2	8.65k	CRW0402865PFKED	Vishay Dale	RES, 8.65 k, 1%, 0.063 W, 0402	0402
34	R18, R26	2	1.3k	ERL4687Y10VY	Passive Networks	RES, 0.1 A, 5%, 0.125 W, 0605	0605
35	R19, R27	2	10k	CRW060310000A	Vishay Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
36	R20	1	22k	CRW060322K09NEA	Vishay Dale	RES, 220 k, 5%, 0.1 W, 0603	0603
37	R21	1	15.2k	CRW060315200A	Vishay Dale	RES, 15.2 k, 1%, 0.1 W, 0603	0603
38	R22	1	75k	CRW060375K09NEA	Vishay Dale	RES, 75 k, 5%, 0.1 W, 0603	0603
39	R23	1	10.0k	CRW060310K09NEA	Vishay Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
40	R25	1	24k	CRW060324K09NEA	Vishay Dale	RES, 24 k, 5%, 0.1 W, 0603	0603
41	R28, CMCH1, R28, CMCH2, R28, CMCH3, R28, CMCH4, R30, NCMCH1, R30, NCMCH2, R30, NCMCH3, R30, NCMCH4	8	48.9	CRW0603489PFKEA	Vishay Dale	RES, 48.9 k, 1%, 0.1 W, 0603	0603
42	R29, CMCH1, R29, CMCH2, R29, CMCH3, R29, CMCH4	4	200	RS201P-201-B-T5	Susumu Co Ltd	RES, 200, 0.1%, 0.125 W, 0605	0605
43	R31, NCMCH1, R31, NCMCH2, R31, NCMCH3, R31, NCMCH4	4	200	RT0605R007200RL	Yageo America	RES, 200, 0.1%, 0.125 W, 0605	0605
44	R32, R34, R35, R36, R37, R38, R39, R40	8	0.11k	CRW0603011PFKEA	Vishay Dale	RES, 5, 11 k, 1%, 0.1 W, 0603	0603
45	R32	1	10k	CRW060310K09NEA	Vishay Dale	RES, 10k, 5%, 0.1 W, 0603	0603
46	R44	1	17k	CRW060317K09NEA	Vishay Dale	RES, 47 k, 5%, 0.1 W, 0603	0603
47	BT-1	1		41613116682	Wurth Elektronik	Switch, SPST, DP-ON, 2 Pos, SMD	5.6x3.58mm
48	BT-1	1		CRW060310K09NEA	Wurth Elektronik	Switch, 2.54mm, Gull, Back	5.6mm, 2.54mm, Black
49	T1	1	2.7uA	750316170	Wurth Elektronik	Transformer, 2.7 uA, SMT	5.0x3.78mm
50	TP4, TP5, TP7, TP9	4		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
51	TP6, TP9, TP10, TP11, TP12, TP4	6		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
52	TP13, TP14, TP16, TP16, TP17, TP18, TP19, TP20, TP22, TP23	11		5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
53	TP21	1		5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
54	U1	1		SN74VHC08DCTR	Texas Instruments	Dual 2-Input Exclusive-OR Gate, DCT0008A	DCT0008A
55	U2, U3	2		SN74VHC123DCCR	Texas Instruments	Single 3-Input Positive-OR Gate, DCK0008A	DCK0008A
56	U4	1		TP5501RTER	Texas Instruments	5V, 50mA CMOS Source ESPROM, TSP5501	TSP5501
57	U5	1		TP5501RTER	Texas Instruments	2.95V To 5V Input, 2W, Isolated DCMC Converter with Integrated FETs, RTE016EC	RTE016EC
58	U6	1		LF398-50CBVR	Texas Instruments	Ultra-Low-Noise Low-Dropout Regulator With Shutdown, DBV0005A	DBV0005A
59	U7, CMCH1, U7, CMCH2, U7, CMCH3, U7, CMCH4	4		INA194ADR	Texas Instruments	High Common-Mode Voltage Difference Amplifier, D0006A	D0006A
60	U9	1		DS90LV160DQR	Texas Instruments	4x24 VPR, Small Footprint and Low-Power Quad Channels Digital Isolator, DS90LV160	DS90LV160
61	U10	1		DS90LV160DQR	Texas Instruments	4x24 VPR, Small Footprint and Low-Power Quad Channels Digital Isolator, DS90LV160	DS90LV160
62	U11	1		MUX0608PWR	Texas Instruments	6-Input, 8-Output, Single-Ended Multiplexer, PFW0016A	PFW0016A
63	U12	1		ADS8681PWR	Texas Instruments	8-Bit ADC with 16 Bits, Single Channel, 1MSPS, and Bipolar Inputs of ±0.5 V Supply, PFW0016A	PFW0016A
64	U13	1		OPA162DBVR	Texas Instruments	30-V, Precision, Rail-to-Rail Input/Output, Low Offset Voltage, Low Input Bias Current Op Amp with auto, DBV0005A	DBV0005A
65	U14	1		SN74ALHC594PWR	Texas Instruments	8-Bit SR Register With Output Register, PFW0016A	PFW0016A
66	U15	1		T5EA21E70GSR	Texas Instruments	DUAL 10-Chm SPDT ANALOG SWITCH, DGS0016A	DGS0016A

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