Texas Instruments

Bill of Materials

TI DESIGNS

TIDA-01088

Item	Qty	Reference	Value	Manufacturer	Manufacturer Part Number	Part Description	Digikey Part Number	PCB Footprint	Note
1	2	C37, C40	12 pf	YAGEO	CC0603JRNPO9BN120	CAP CER 12PF 50V 5% NPO 0603	311-1059-1-ND	0603	
2	2	C33 C58	0.47 Uf	YAGEO	CC0603KRX7R7BB474	CAP CER 0.47UF 16V 10% X7R 0603	311-1428-1-ND	0603	
3	8	C4, C6, C14, C16, C29, C32, C49	4.7 Uf	YAGEO	CC0603KRX5R6BB475	CAP CER 4.7UF 10V 10% X5R 0603	311-1455-1-ND	0603	
4	10	C5, C7, C15, C17, C18, C28, C30, C31, C53, C59	0.1 UF	YAGEO	CC0603ZRY5V9BB104	CAP CER 0.1UF 50V Y5V 0603	311-1343-1-ND	0603	
5	3	C1, C9, C38	0.1 UF	YAGEO	CC0805ZRY5V9BB104	CAP CER 0.1UF 50V Y5V 0805	311-1361-1-ND	0805	
6	3	C8, C36, C43	10UF	YAGEO	CC0805ZKY5V6BB106	CAP CER 10UF 10V Y5V 0805	311-1355-1-ND	0805	
7	1	XT1	CRYSTAL	CITIZEN FINETECH	CMR200T32768DZBT	CRYSTAL 32.768 KHZ 6PF SMD	300-8341-1-ND	SMD	
8	6	D44, D45, D46, D47, D48, D49	DIODE	MICRO COMM	1N4148X-TP	DIODE SWITCHING 75V 0.15A SOD523	1N4148XTPMSCT-ND	SOD523	
9	4	L1, L3, L5, L6	BEAD	PANASONIC	EXC-ML20A390U	BEAD CORE 4A 100 MHZ 0805 SMD	P10191CT-ND	0805	
10	8	ACT, JP1, JP2, JP3, JP14, JP15, JP16 , REACT	2-PIN CONNECTOR	3M	961102-6404-AR	CONN HEADER VERT SGL 2POS GOLD	3M9447-ND	Through-hole	
11	8	JP4, JP5, JP6, JP7, JP8, JP9, JP10	3-PIN CONNECTOR	3M	961103-6404-AR	CONN HEADER VERT SGL 3POS GOLD	3M9448-ND	Through-hole	
12	1	LED_ACT	RED LED	ROHM	SLR-342VC3F	LED 3.1MM 650NM RED TRANSPARENT	511-1249-ND	Through-hole	
13	3	LED_PHASE_1, LED_PHASE_2, LED_PHASE_3	YELLOW LED	ROHM	SLR-342YC3F	LED 3.1MM 585NM YELLOW TRANSP	511-1251-ND	Through-hole	
14	1	LED_REACT	GREEN LED	ROHM	SLR-342MC3F	LED 3.1MM 563NM GREEN TRANSP	511-1247-ND	Through-hole	
15	3	DGND, DVCC, ISO_PULSE	4-PIN CONNECTOR	3M	961104-6404-AR	CONN HEADER VERT SGL 4POS GOLD	3M9449-ND	Through-hole	
16	1	JTAG	14-PIN CONNECTOR	3M	N2514-6002-RB	CONN HEADER 14 POS STRGHT GOLD	MHC14K-ND	Through-hole	
17	1	U4	MSP430F67641			MSP430F67641	SUPPLIED FROM TI	IPZ	
18	2	BTN1, RESET	SWITCH	PANASONIC	EVQ-11L05R	SWITCH TACTILE SPST-NO 0.02A 15V	P8079SCT-ND	Through-hole	
19	5	R20, R21, R22, R57, R58	100 OHM	STACKPOLE	RMCF0603JT100R	RES 100 OHM 1/10W 5% 0603 SMD	RMCF0603JT100RCT-ND	0603	
20	1	R48	330 OHM	STACKPOLE	RMCF0603JT330R	RES 330 OHM 1/10W 5% 0603 SMD	RMCF0603JT330RCT-ND	0603	
21	1	R49	100K OHM	STACKPOLE	RMCF0805JT100K	RES 100K OHM 1/8W 5% 0805 SMD	RMCF0805JT100KCT-ND	0805	
22	3	R117, R123, R127	10 OHM	BOURNS	CRT0805-BY-10R0ELF	RES 10 OHM 1/8W 0.1% 0805 SMD	CRT0805-BY-10R0ELFCT-ND	0805	
23	1	R36	10 OHM	STACKPOLE	RMCF0805JT10R0	RES 10 OHM 1/8W 5% 0805 SMD	RMCF0805JT10R0CT-ND	0805	
24	9	R/L1, R/L2, R/L3, R/L4,	0.0 OHM	STACKPOLE	RMCF0805ZT0R00	RES 0.0 OHM 1/8W 0805 SMD	RMCF0805ZT0R00CT-ND	0805	CSEL1, CSEL2, CSEL3 Solder Bridge to L option instead of A
25	21	R4, R14, R15, R102, R103,	1M OHM	PANASONIC	ERA-6AEB105V	RES 1M OHM 1/8W 0.1% 0805	P1MDACT-ND	0805	
26	3	R118, R121 R125	20K OHM	PANASONIC	ERA-6AEB203V	RES 20K OHM 1/8W 0.1% 0805	P20KDACT-ND	0805	
27	3	R119 R122 R126	10K OHM	PANASONIC	ERA-6AEB103V	RES 10K OHM 1/8W 0.1% 0805	P10KDACT-ND	0805	
28	3	R1, R2, R3	VARISOTR	TDK	S20K275	VARISTOR 275V RMS 20MM RADIAL	495-1417-ND	20 MM Radial	
29	1	LCD1	LCD	Custom	Custom	160-segment LCD	SUPPLIED FROM TI	Custom	Provided by TI
30	3	TVS1, TVS2, TVS3	DIODE	BOURNS	SMAJ5.0CA	DIODE TVS 5.0V 400W BI 5% SMD	SMAJ5.0CABCT-ND	SMD	
31	12	D1, D2, D3, D4, D5, D10, D11, D12, D13, D14, D15, D35	DIODE	NXP	PMLL4148L.115	DIODE SW GPP 75V 200MA SOD80C	568-1749-1-ND	SOD80C	
32	3	R116, R120, R124	1.0K OHM	VISHAY	MCU0805MD1001DP500	RES 1.0K OHM 1/16W 0.1% 0805 SMD	MCU0805-1.00K-MDCT-ND	0805	
33	1	R51	47K OHM	STACKPOLE	RMCF0603JT47K0	RES 47K OHM 1/10W 5% 0603 SMD	RMCF0603JT47K0CT-ND	0603	
34	1	C22	10000PF	TDK	C1608X7R1H103K080AA	CAP CER 10000PF 50V 10% X7R 0603	445-1311-1-ND	0603	
35	3	R5, R6, R7	0.0 OHM	STACKPOLE	RMCF0603ZT0R00	RES 0.0 OHM 1/10W 0603 SMD	RMCF0603ZT0R00CT-ND	0603	
36	1	U5	ISOLATION	TI	ISO7320D	IC ISOLATOR DGTL 2CH 2/0 8SOIC	296-42100-1-ND	8SOIC	
37	1	U1	ISOLATION	TI	ISO7321D	IC ISOLATOR DGTL 2CH 2/0 8SOIC	296-42102-1-ND	8SOIC	
38	1	U3	LDO	TI	TPS76333DBVR	IC REG LDO 3.3V 0.15A SOT23-5	296-11021-1-ND	SOT23-5	
39	1	U2	RS232	TI	TRS3232EQPWRQ1	IC DVR/RCV RS232 MULTICH 16TSSOP	296-24863-1-ND	16TSSOp	
40	10	C56, C57, C60, C61, C62, C63, C64, C65, C66, C67	0.1UF	TDK	C1608X7R1E104K080AA	CAP CER 0.1UF 25V 10% X7R 0603	445-1316-1-ND	0603	
41	1	RS1	RS-232 CONNECTOR	TE CONN	5747844-6	CONN D-SUB RCPT R/A 9POS 30GOLD	A32119-ND	Through-hole	
42	2	D6, D7	DIODE	FAIRCHILD	1N4148WS	DIODE GEN PURP 75V 150MA SOD323F	1N4148WSFSCT-ND	SOD323F	
43	1	C55	1UF	TDK	C1608X7R1E105K080AB	AP CER 1UF 25V 10% X7R 0603	445-5956-1-ND	0603	
44	1	C54	47UF	TDK	C3216X5R1E476M160AC	CAP CER 47UF 25V 20% X5R 1206	445-8047-1-ND	1206	

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45	3	U$6, U$10, U$12	REGULATOR	TI	SN6501DBVR	IC REG CONV PWR SUPPLIES SOT23-5	296-37700-1-ND	SOT23-5	
46	3	U$2, U$3, U$4	AMC1304M05	TI	AMC1304M05	AMC1304M05	SUPPLIED FROM TI	SOIC-16	Provided by TI
47	1	CLOCK_GENERATOR	Do not populate	Do Not Populate	Do Not Populate	20 MHZ CLOCK	DNP	Custom	Do Not Populate
48	3	U$7, U$13, U$14	TERMINAL BLOCK	ON-SHORE	ED120/2DS	TERMINAL BLOCK 5.08MM VERT 2POS	ED1609-ND	Through-hole	
49	3	U$8, U$15, U$16	TRANSFORMER	DA2304-AL	Coilcraft	CUSTOM TRANSFORMER	Please Order DA2304-AL from Coilcraft	Custom	Please Order DA2304-AL from Coilcraft
50	6	U$1, U$5, U$9, U$11, U$17, U$19	DIODE	ON SEMI	MBR0520LT1G	DIODE SCHOTTKY 20V 0.5A SOD123	MBR0520LT1GOSCT-ND	SOD123	
51	9	C35, C39, C41, C44, C45, C46, C48, C50, C51	10 UF	TAIYO	EMK212BJ106KG-T	CAP, CERM, 10 µF, 16 V, +/- 10%, X5R, 0805	587-1295-1-ND	0805	
52	3	C42, C47, C52	0.1 UF	KEMET	C0805C104K3RACTU	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0805	399-1168-1-ND	0805	
53	6	C11, C13, C20, C23, C25, C27	0.1UF	KEMET	C0805C104K3RACTU	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0805	399-1168-1-ND	0805	
54	3	C24, C26, C34	2.2UF	TAIYO	EMK212B7225KG-T	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X7R, 0805	587-1431-1-ND	0805	
55	6	R135, R136, R137, R138, R139, R140	20.0 OHM	YAGEO	RT0603BRD0720RL	RES, 20.0, 0.1%, 0.1 W, 0603	RT0603BRD0720RL	0603	
56	3	C2, C3, C10	5600 PF	TDK	C1608C0G1E562J080AA	CAP, CERM, 5600 pF, 25 V, +/- 5%, C0G/NP0, 0603	445-2666-1-ND	0603	
57	3	C12, C19, C21	4.7 UF	TAIYO	LMK212BJ475KD-T	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0805	587-1297-1-ND	0805	
58	1	R16	Do not populate	Do not populate	Do not populate	RES 0.0 OHM 1/10W 0603 SMD	Do Not Populate	0603	Do Not Populate
59	3	AMC1PWR, AMC2PWR, AMC3PWR	N/A	N/A	N/A	N/A	N/A	Solder Bridge	Solder Bridge to I (i) option instead of E option
60	3	Shunts	400µΩ or 200µΩ	Vishay	WSMS3124	Power Metal Strip® Meter Shunt Resistor	Please Order WSMS3124 from Vishay	Custom	This is an off-board shunt.

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