Texas Instruments

Bill of Materials

TI DESIGNS

TIDA-00839

Item	Qty	Reference	Value	Manufacturer	Manufacturer Part Number	Part Description	Digikey Part Number
1	1	XT1	32.768 KHZ	CITIZEN FINEDEVICE CO LTD (VA)	CMR200T32768DZBT	CRYSTAL 32.768 KHZ 6PF SMD	300-8341-1-ND
2	2	C37 C40	12pF	YAGEO (VA)	CC0603JRNPO9BN120	CAP CER 12PF 50V 5% NPO 0603	311-1059-1-ND
3	13	C8 C10 C12 C15 C17 C19 C21 C41 C42 C51 C52 C54 C55	15n	YAGEO (VA)	CC0805KRX7R9BB153	CAP CER 0.015UF 50V 10% X7R 0805	311-1143-1-ND
4	9	C23 C25 C27 C28 C30 C31 C33 C36 C43	100nF	YAGEO (VA)	CC0603ZRY5V9BB104	CAP CER 0.1UF 50V Y5V 0603	311-1343-1-ND
5	2	C52 C53	0.1uF	YAGEO (VA)	CC0603ZRY5V9BB104	CAP CER 0.1UF 50V Y5V 0603	311-1343-1-ND
6	2	C38 C44	0.47uF	YAGEO (VA)	CC0603KRX7R7BB474	CAP CER 0.47UF 16V 10% X7R 0603	311-1428-1-ND
7	10	C22 C24 C26 C29 C32 C34 C35 C49 C56 C57	4.7uF	YAGEO (VA)	CC0603KRX5R6BB475	CAP CER 4.7UF 10V 10% X5R 0603	311-1455-1-ND
8	14	C1 C2 C3 C4 C5 C6 C7 C9 C11 C13 C14 C16 C18 C20	47p	YAGEO (VA)	CC0805JRNPOBBN470	CAP CER 47PF 500V 5% NPO 0805	311-1484-1-ND
9	8	JP11, JP12, RX_EN, TX_EN, RTC, JP14 DRV-I, DRV_I1	None	3M	961102-6404-AR	CONN HEADER VERT SGL 2POS GOLD	3M9447-ND
10	8	JP3 JP4 JP5 JP6 JP7 JP8 JP9 JP10	None	3M	961103-6404-AR	CONN HEADER VERT SGL 3POS GOLD	3M9448-ND
11	3	DGND, DVCC, ISO_PULSE	None	3M	961104-6404-AR	CONN HEADER VERT SGL 4POS GOLD	3M9449-ND
12	1	SV1	None	TE CONNECTIVITY AMP	825440-2	CONN HEADER VERT DUAL 4POS GOLD	A106735-ND
13	13	R/L7 R/L8 R/L9 R/L10 R/L11 R/L12 R/L13 R/L14 R39 R62 R63 R4 R66 L1 L3 L5 L6	0	STACKPOLE ELECTRONICS INC (VA)	RMCF0805ZT0R00	RES 0.0 OHM 1/8W 0805 SMD	RMCF0805ZT0R00CT-ND
14	3	R1 R2 R3	S20K275	EPCOS INC	S20K275	VARISTOR 275V RMS 20MM RADIAL	495-1417-ND
15	2	LED_1 LED_4	Orange	ROHM SEMICONDUCTOR	SLR-342DC3F	LED 3.1MM 610NM ORANGE TRANSP	511-1245-ND
16	2	LED_3 LED_6	Green	ROHM SEMICONDUCTOR	SLR-342MC3F	LED 3.1MM 563NM GREEN TRANSP	511-1247-ND
17	2	LED_ACT LED_REACT	Red	ROHM SEMICONDUCTOR	SLR-342VC3F	LED 3.1MM 650NM RED TRANSPARENT	511-1249-ND
18	2	LED_2 LED_5	Yellow	ROHM SEMICONDUCTOR	SLR-342YC3F	LED 3.1MM 585NM YELLOW TRANSP	511-1251-ND
19	36	D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D28 D29 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 D42 D43 D24 D25 D26 D27	PMLL4148	NXP SEMICONDUCTORS (VA)	PMLL4148L,115	DIODE SW GPP 75V 200MA SOD80C	568-1749-1-ND
20	1	JTAG	None	3M	N2514-6002-RB	CONN HEADER 14 POS STRGHT GOLD	MHC14K-ND

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21	5	DBTN1, DBTN2, ABTN3, ABTN4, RESET	None	PANASONIC ELECTRONIC COMPONENTS (VA)	EVQ-11L05R	SWITCH TACTILE SPST-NO 0.02A 15V	P8079SCT-ND
22	8	R54 R55 R56 R57 R58 R59 R60 R61	100	STACKPOLE ELECTRONICS INC (VA)	RMCF0603JT100R	RES 100 OHM 1/10W 5% 0603 SMD	RMCF0603JT100RCT-ND
23	1	R68	1k	STACKPOLE ELECTRONICS INC (VA)	RMCF0603JT1K00	RES 1K OHM 1/10W 5% 0603 SMD	RMCF0603JT1K00CT-ND
24	1	R48	330	STACKPOLE ELECTRONICS INC (VA)	RMCF0603JT330R	RES 330 OHM 1/10W 5% 0603	RMCF0603JT330RCT-ND
25	1	R51	47K	STACKPOLE ELECTRONICS INC (VA)	RMCF0603JT47K0	RES 47K OHM 1/10W 5% 0603	RMCF0603JT47K0CT-ND
26	3	R42 R43 R46	560k	STACKPOLE ELECTRONICS INC (VA)	RMCF0805FT560K	RES TF 560K OHM 1% 0.125W	RMCF0805FT560KCT-ND
27	4	R49 R50 R52 R53	100K	STACKPOLE ELECTRONICS INC (VA)	RMCF0805JT100K	RES 100K OHM 1/8W 5% 0805	RMCF0805JT100KCT-ND
28	1	R36	10R	STACKPOLE ELECTRONICS INC (VA)	RMCF0805JT10R0	RES 10 OHM 1/8W 5% 0805 SMD	RMCF0805JT10R0CT-ND
29	14	R14 R16 R18 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34	1k	STACKPOLE ELECTRONICS INC (VA)	RMCF0805JT1K00	RES 1.0K OHM 1/8W 5% 0805 SMD	RMCF0805JT1K00CT-ND
30	3	R15 R17 R19	2K37	STACKPOLE ELECTRONICS INC (VA)	RMCF0805FT2K37	RES 2.37K OHM 1/8W 1% 0805	RMCF0805FT2K37CT-ND
31	9	R5 R6 R7 R8 R9 R10 R11 R12 R13	330k	STACKPOLE ELECTRONICS INC (VA)	RMCF0805JT330K	RES 330K OHM 1/8W 5% 0805 SMD	RMCF0805JT330KCT-ND
32	4	R20 R21 R22 R23	13	STACKPOLE ELECTRONICS INC (VA)	RMCF0805FT13R0	RES 13 OHM 1/8W 1% 0805 SMD	RMCF0805FT13R0CT-ND
33	4	TVS1 TVS2 TVS3 TVS4	SMAJ5.0CA	BOURNS INC (VA)	SMAJ5.0CA	DIODE TVS 5.0V 400W BI 5% SMD	SMAJ5.0CABCT-ND
34	1	LCD1	TI_160SEG_LCD	ADKOM	Fh-1152p	Custom LCD	Custom LCD
35	1	MSP430F67791A	MSP430F67791AIPEU	TEXAS INSTRUMENTS	MSP430F67791AIPEU	IC MCU 16BIT 512KB FLASH	MSP430F67791AIPEUR-ND
36	1	C102	100uF	RUBYCON	100YXG100MEFC10X23	CAP Electrolytic 100uF 100V 20%,	1189-1020-ND
37	3	C39,C46,C50	0.22uF	EPCOS INC	B32922C3224M	CAP poly 0.22uF 305VAC/630VDC	495-2320-ND
38	1	C48	2.2uF	TDK CORPORATION (VA)	C3225X7R2A225K230AB	CAP Ceramic 2.2uF 100V X7R 1210	445-4497-2-ND
39	1	C45	0.01uF	TDK CORPORATION (VA)	C1608X7R1E103K080AA	CAP CER 10000PF 25V 10% X7R	445-5100-1-ND
40	1	C62	47uF	TAIYO YUDEN (VA)	LMK325BJ476MM-T	CAP Ceramic 47uF 10V X5R 1210	587-1383-1-ND
41	1	C47	0.1uF	KEMET (VA)	C0603C104K8RACTU	CAP Ceramic 0.1uF 10V X5R 0603	399-1095-1-ND
42	1	C60	.056uF	MURATA ELECTRONICS (VA)	GRM188R71E563KA01D	CAP Ceramic .056uF 25V X7R 10%	490-6433-1-ND
43	1	C61	100pF	KEMET (VA)	C0603C101J3GACAUTO	CAP Ceramic 100pF 25V NPO, 5%	399-6841-1-ND
44	1	D23	B160	COMCHIP TECHNOLOGY (VA)	CDBB160-G	Diode Schottky 1A 60V B160 SMB	641-1107-1-ND
45	3	D17,D19,D21	48V	DIODES INCORPORATED	1N4757A-T	Diode Zener 51V 1W 1N4757A D0-	1N4757ADICT-ND
46	3	D18,D20,22	1N4007	FAIRCHILD SEMICONDUCTOR (VA)	1N4007	DIODE GEN PURPOSE 1000V 1A	1N4007FSCT-ND
47	1	L7	1mH	COILCRAFT	MSS1038-105	Inductor, SMT, MSS1038-105	**Must order from CoilCraft (MSS1038-105)**
48	2	R35,R38	1M	TE CONNECTIVITY AMP (VA)	1-1879417-9	RES 1M OHM 1/16W 1% 0603	A102234CT-ND
49	1	R37	33.2k	STACKPOLE ELECTRONICS INC (VA)	RNCS0603BKE33K2	RES 33.2K OHM 1/16W .1% 0603	RNCS0603BKE33K2CT-ND
50	1	R95	22.1k	TE CONNECTIVITY AMP (VA)	9-1879337-2	RES 22.1K OHM 1/16W 1% 0603	A102241CT-ND
51	1	R96	51.1	TE CONNECTIVITY AMP (VA)	3-1879335-7	RES 51.1 OHM 1/16W 1% 0603	A102292TR-ND
52	1	R97	31.6k	TE CONNECTIVITY AMP (VA)	1879338-8	RES 31.6K OHM 1/16W 1% 0603	A102261DKR-ND
53	1	R98	10.0k	TE CONNECTIVITY AMP (VA)	1614881-2	RES 10.0K OHM 1/16W 0.1% 0603	A102331CT-ND
54	3	R92,R93,R94	100	PANASONIC ELECTRONIC COMPONENTS	ERG-2SJ101	RES 100 OHM 2W 5% AXIAL	P100W-2BK-ND
55	1	U3	TPS54060ADGQ	TEXAS INSTRUMENTS	TPS54060ADGQ	IC REG BUCK ADJ 0.5A 10MSOP	296-30339-5-ND
56	1	JP3Q	None	3M	961206-6404-AR	CONN HEADER VERT DUAL 6POS	3M9459-ND
57	1	U8	ISOLATION	TEXAS INSTRUMENTS (VA)	ISO7320CDR	IC ISOLATOR DGTL 2CH 2/0 8SOIC	296-42100-1-ND
58	10	C71, C72, C75, C76, C60, C73, C74, C77, C78, C79, C80	0.1UF	TDK CORPORATION (VA)	C1608X7R1E104K080AA	CAP CER 0.1UF 25V 10% X7R 0603	445-1316-1-ND
59	1	U7	LDO	TEXAS INSTRUMENTS (VA)	TPS70933DBVR	IC REG LDO 3.3V 0.15A SOT23-5	296-35483-1-ND
60	1	U6	RS232	TEXAS INSTRUMENTS (VA)	TRS3232EQPWRQ1	IC DVR/RCV RS232 MULTICH	296-24863-1-ND
61	1	U5	ISOLATION	TEXAS INSTRUMENTS (VA)	ISO7321CDR	IC ISOLATOR DGTL 2CH 2/0 8SOIC	296-42102-1-ND
62	1	RS1	RS-232 CONNECTOR	TE CONNECTIVITY AMP	5747844-6	CONN D-SUB RCPT STR 9POS	A32036-ND
63	2	D50, D51	DIODE	FAIRCHILD SEMICONDUCTOR (VA)	1N4148WS	DIODE GEN PURP 75V 150MA	1N4148WSFSCT-ND
64	1	C70	1UF	TDK CORPORATION (VA)	C1608X7R1E105K080AB	AP CER 1UF 25V 10% X7R 0603	445-5956-1-ND
65	1	C69	47UF	TDK CORPORATION (VA)	C3216X5R1E476M160AC	CAP CER 47UF 25V 20% X5R 1206	445-8047-1-ND
66	1	D45	US1J-E3/5AT	VISHAY SEMICONDUCTOR DIODES DIVISION (VA)	US1J-E3/5AT	DIODE GEN PURP 600V 1A	US1J-E3/5ATGICT-ND
67	1	C63	10u / 400V	PANASONIC ELECTRONIC COMPONENTS	EEU-EB2G100	CAP ALUM 10UF 20% 400V RADIAL	P5939-ND
68	1	D46	1SMB5954BT3G	ON SEMICONDUCTOR (VA)	1SMB5954BT3G	DIODE ZENER 160V 3W SMB	1SMB5954BT3GOSCT-ND
69	1	D47	US1M-13-F	DIODES INCORPORATED (VA)	US1M-13-F	DIODE GEN PURP 1KV 1A SMA	US1M-FDICT-ND
70	1	U4	UCC28910D	TEXAS INSTRUMENTS (VA)	UCC28910DR	IC OFF-LINE SWITCH PWM 7SOIC	296-37829-1-ND

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71	1	R104	2.87k	VISHAY DALE (VA)	CRCW06032K87FKEA	RES SMD 2.87K OHM 1% 1/10W	541-2.87KHCT-ND
72	1	C64	0.1u	AVX CORPORATION (VA)	06035C104KAT2A	CAP CER 0.1UF 50V X7R 0603	478-5052-1-ND
73	1	R105	30.1k	VISHAY DALE (VA)	CRCW060330K1FKEA	RES SMD 30.1K OHM 1% 1/10W	541-30.1KHCT-ND
74	1	R106	76.8k	VISHAY DALE (VA)	CRCW060376K8FKEA	RES SMD 76.8K OHM 1% 1/10W	541-76.8KHCT-ND
75	1	R107	10	VISHAY DALE (VA)	CRCW060310R0FKEA	RES SMD 10 OHM 1% 1/10W 0603	541-10.0HCT-ND
76	1	D48	BAS20HT1G	ON SEMICONDUCTOR (VA)	BAS20HT1G	BAS20HT1GOSCT-ND	BAS20HT1GOSCT-ND
77	1	C65	18u	PANASONIC ELECTRONIC COMPONENTS (VA)	EEU-FR1J180B	CAP ALUM 18UF 20% 63V RADIAL	P15284CT-ND
78	1	T1	CUSTOMTRANS	RENCO	RLTI-1094	Custom Transformer	**Must order from Renco (RLTI-1094)**
79	1	D49	B130LB-13-F	DIODES INCORPORATED (VA)	B130LB-13-F	DIODE SCHOTTKY 30V 2A SMB	B130LB-FDICT-ND
80	1	C66	820u	UNITED CHEMI-CON	EKZE6R3ELL821MH15D	CAP ALUM 820UF 20% 6.3V	565-1629-ND
81	1	C67	10u	TDK CORPORATION (VA)	C3225X7R1E106M250AC	445-1434-1-ND	445-1434-1-ND
82	1	R65	0	PANASONIC ELECTRONIC COMPONENTS (VA)	ERJ-6GEY0R00V	RES SMD 0.0 OHM JUMPER 1/8W	P0.0ACT-ND
83	1	R108	2.0k	VISHAY DALE (VA)	CRCW06032K00JNEA	RES SMD 2K OHM 5% 1/10W 0603	541-2.0KGCT-ND
84	2	U$8, U$7	None	TEXAS INSTRUMENTS (VA)	SN74AUP2G32DCUR	IC GATE OR 2CH 2-INP US8	296-32275-1-ND
85	2	R67, R68	DNP	DNP	DNP	DNP	DNP
86	6	R40 R41 R44 R45 R47 R64	30k	YAGEO (VA)	RC0805JR-0730KL	RES SMD 30K OHM 5% 1/8W 0805	311-30KARCT-ND
87	2	U$5 U$6	None	TEXAS INSTRUMENTS	DRV5033AJQLPG	IC HALL SENSOR DGTL SW TO-92	296-38520-ND
88	4	U$1 U$2 U$3 U$4	None	TEXAS INSTRUMENTS (VA)	DRV5033AJQDBZR	IC HALL SENSOR SOT23 package	296-38454-1-ND
89	12	DRV1GND, DRV2GND, DRV3GND, DRV4GND, DRV5GND, DRV6GND DRVOUT1, DRVOUT2, DRVOUT3, DRVOUT4, DRVOUT5, DRVOUT6	0	N/A	N/A	0-Ohm Resistor	**Place solder bridge or 0-Ohm resistor on pads 2 and 3**
90	2	DRVPWR4, DRVPWR1	0	N/A	N/A	0-Ohm Resistor	**Place solder bridge or 0-Ohm resistor on pads 2 and 3**
91	1	C58	DNP	DNP	DNP	DNP	DNP
92	1	C68	0.1U	AVX Corporation	08053C104KAT2A	CAP CER 0.1UF 25V X7R 0805	478-3755-1-ND

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