

BOM for Tiva™ C Series MCU based IO Controller for Programmable Logic Controllers (PLC)

Item	Reference	Qty.	Description	Manufacturer	Part Number	Assembly Status
1	C1, C2, C3, C4, C6, C9, C11, C12, C21, C22, C23, C24, C28, C30, C31, C32, C33, C34, C35, C37, C38, C41, C43, C46, C47, C48, C49, C51, C52, C53, C58, C63, C87, C101, C102, C103, C106	37	CAP CER 0.1UF 35V 10% X5R 0603	Taiyo Yuden	GMK107BJ104KAHT	Assembled
2	C104	0	CAP CER 0.1UF 35V 10% X5R 0603	Taiyo Yuden	GMK107BJ104KAHT	DNP
3	C5, C8, C19, C20, C27, C42, C44, C45, C59, C86	10	CAP CER 10000PF 50V 20% X5R 0603	TDK Corporation	CGA3E2X5R1H103M080AA	Assembled
4	C10, C13, C25, C26, C29, C50, C65, C73, C82, C89, C91, C97, C99, C280, C282	15	CAP CER 1UF 50V 10% X5R 0603	TDK Corporation	C1608X5R1H105K080AB	Assembled
5	C14, C68, C88	3	CAP CER 0.47UF 50V 10% X5R 0603	Taiyo Yuden	UMK107ABJ474KA-T	Assembled
6	C15, C16	2	CAP CER 16PF 50V 5% NP0 0402	Murata Electronics North America	GRM1555C1H160JA01D	Assembled
7	C39, C92, C279, C281	4	CAP CER 22UF 35V 20% X5R 1206	TDK Corporation	C3216X5R1V226M160AC	Assembled
8	C40	1	CAP CER 47UF 25V 20% X5R 1206	TDK Corporation	C3216X5R1E476M160AC	Assembled
9	C60, C84	2	CAP CER 3300PF 50V 20% X5R 0603	TDK Corporation	CGA3E2X5R1H332M080AA	Assembled
10	C61, C67, C85	3	CAP CER 2.2UF 50V 10% X5R 0805	Samsung Electro-Mechanics America, Inc	CL21A225KB9LNNC	Assembled
11	C62	1	CAP CER 1000PF 100V 20% X5R 0603	TDK Corporation	C1608X5R2A102M080AA	Assembled
12	C64, C72, C74, C79, C288, C289	6	CAP CER 0.1UF 50V 10% X5R 0603	TDK Corporation	C1608X5R1H104K080AA	Assembled
13	C69, C81	2	CAP ALUM 100UF 50V 20% SMD	Panasonic Electronic Components	EEE-FTH101XAP	Assembled
14	C70, C71	2	CAP CER 4.7UF 50V 10% X5R 1206	Samsung Electro-Mechanics America, Inc	CL31A475KB9LNNC	Assembled
15	C75	1	CAP CER 2200PF 50V 10% X7R 0603	Kemet	C0603C222K5RACTU	Assembled
16	C76	1	CAP CER 0.012UF 50V 5% X7R 0603	Kemet	C0603C123J5RACTU	Assembled
17	C77	1	CAP CER 120PF 50V 10% X7R 0603	Samsung Electro-Mechanics America, Inc	CL10B121KB8NNNC	Assembled
18	C78, C290, C291	3	AP ALUM 150UF 50V 20% SMD	Panasonic Electronic Components	EEE-FK1H151P	Assembled
19	C83, C283, C284, C285, C286, C287	6	CAP CER 1000PF 2KV 10% X7R 1206	Johanson Dielectrics Inc	202R18W102KV4E	Assembled
20	C93, C96	2	CAP CER 2200PF 3KV 10% X7R 1812	AVX Corporation	1812HC222KAT1A	Assembled
21	C94, C95	2	CAP CER 0.033UF 250VAC X7R 2220	Murata Electronics North America	GA355ER7GB333KW01L	Assembled
22	C98,C100	2	CAP ALUM 220UF 50V 20% SMD	Panasonic Electronic Components	EEE-1HA221P	Assembled
23	C105	1	CAP CER 0.022UF 50V 10% X5R 0603	TDK Corporation	CGA3E2X5R1H223K080AA	Assembled
24	D1, D2, D3, D4, D53, D54, D55	7	LED SMARTLED GREEN 570NM 0603	OSRAM Opto Semiconductors Inc	LG L29K-G2J1-24-Z	Assembled
25	D5, D6, D7	3	DIODE TVS 15V 1500W BI 5% SMD	Bourns Inc.	SMCJ15CA	Assembled
26	D8	1	DIODE SCHOTTKY 20V 1A SMA	Diodes Inc	B120-13-F	Assembled
27	D9	1	DIODE ZENER 5.1V 5W DO214AA	Micro Commercial Co		Assembled
28	D10, D11	2	DIODE SCHOTTKY 40V 0.5A SOD123	Micro Commercial Co	MBR0540-TP	Assembled
29	D12, D13	2	DIODE SCHOTKY 200V 1A POWERDI123	Diodes Inc.	DFLS1200-7	Assembled
30	D14, D60	2	DIODE SCHOTTKY 40V 0.1A SOD523	Diodes Inc.	SDM10U45-7-F	Assembled
31	D15	1	DIODE SCHOTTKY 200V 4A SMC	ON Semiconductor	MBRS4201T3G	Assembled
32	D16	0	Varistors 30Vrms 38VDC 8KA 11000pF 20mm Disc	Littelfuse Inc	V20E30P	DNP
33	D17, D52	2	DIODE TVS 45V	Littelfuse Inc	SMBJ45CA	Assembled

			600W BIDIR 5% SMB			
34	D18	1	Diode, Zener, Planar Power, 500mW, 8.2V	Diodes Inc	BZT52C8V2-7-F	Assembled
35	D57	1	DIODE ZENER 2.4V 500MW SOD123	Diodes Inc	BZT52C2V4-7-F	Assembled
36	D61	0	DIODE ZENER 2.4V 500MW SOD123	Diodes Inc	BZT52C2V4-7-F	DNP
37	IC1	1	IC, 36-V Hot swap Controller with Digital Power Monitoring	TI	TPS2482PW	Assembled
38	J1, J20	2	CONN TERM BLOCK 2.54MM 2POS PCB	On Shore Technology Inc	OSTVN02A150	Assembled
39	J2, J19	2	CONN HEADER 10POS .100 STR TIN	FCI	67997-410HLF	Assembled
40	J5	1	CONN RECEPT USB 5POS RT ANG SMD	Molex Inc	678038020	Assembled
41	J6	1	CONN HEADER 10POS DL PIN 2.54MM	Würth Electronics Inc	61301021121	Assembled
42	J7, J8, J18	3	TERM BLOCK HDR 2POS VERT 5.08MM	TE Connectivity	282825-2	Assembled
43	L1	1	FERRITE CHIP 1000 OHM 300mA 0603	TDK Corporation	MMZ1608B102C	Assembled
44	L2, L3	2	CHOKE COMM MODE 90 OHM .4A SMD	TDK Corporation	ACM2012-900-2P-T002	Assembled
45	L5	1	Shielded SMD Power Inductor 220uH	BOURNS	SRR7032-221M	Assembled
46	L4, L6, L7	3	POWER INDUCTOR 3.3UH 1.1A SMD	Würth Electronics Inc	74438333033	Assembled
47	L8	1	CHOKE COMMON MODE 10mH 1.7A T/H	Murata Power Solutions Inc	52106C	Assembled
48	M1	1	MOSF N CH 60V 11A (TA) 8SON	TI	CSD18537NQ5A	Assembled
49	M3	1	MOSFET, N-Chan, 40V, 25 A, 3.3 mOhm	TI	CSD18501Q5A	Assembled
50	R1, R2, R3, R4, R9, R10, R11, R12, R13, R14, R15, R16, R18, R19, R20, R21, R22, R25, R26, R27, R56, R69, R70, R71, R72, R73, R74, R75, R76, R79, R133, R227	32	RES 10.0 OHM 1/10W 1% 0603 SMD	Vishay Dale	CRCW060310R0FKEA	Assembled
51	R5, R6, R7, R8, R17, R43, R54, R55, R60, R84, R89, R105, R108, R110, R123, R137	16	RES 10K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF1002V	Assembled
52	R23, R24, R31, R32, R86, R87, R91, R92	8	RES 1.5K OHM 1/10W 1% 0402 SMD	Panasonic	ERJ-2RKF1501X	Assembled
53	R33, R34, R35, R39, R267, R268, R269	7	RES 300 OHM 1/10W 5% 0603 SMD	Panasonic Electronic Components	ERJ-3GEYJ301V	Assembled
54	R42	1	RES 510K OHM 1/16W 0.1% 0603	TE Connectivity	1-1879417-2	Assembled
55	R44, R83	2	ES 4.70K OHM .25W 1% 0603 SMD	Vishay Dale	CRCW06034K70FKEAHP	Assembled
56	R45	1	RES 100 OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF1000V	Assembled
57	R46	1	RES 97.6K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB9762V	Assembled
58	R52, R82, R85, R90, R109, R250, R251	7	RES 0.0 OHM 1/10W JUMP 0603 SMD	Panasonic Electronic Components	ERJ-3GEY0R00V	Assembled
59	R265, R271	0	RES 0.0 OHM 1/10W JUMP 0603 SMD	Panasonic Electronic Components	ERJ-3GEY0R00V	DNP
60	R50	1	RES 0.0 OHM 1/10W JUMP 0402 SMD	Panasonic Electronic Components	ERJ-2GE0R00X	Assembled
61	R48	0	RES 0.0 OHM 1/10W JUMP 0402	Panasonic Electronic Components	ERJ-2GE0R00X	DNP

			SMD			
62	R88, R93	0	RES 0.0 OHM 1/10W JUMP 0603 SMD	Panasonic Electronic Components	ERJ-3GEY0R00V	DNP
63	R53, R62	2	RES 470 OHM 1/8W 1% 0805 SMD	Rohm Semiconductor	ESR10EZPJ471	Assembled
64	R57	1	RES 120 OHM .4W 1% 0805 SMD	Rohm Semiconductor	ESR10EZPF1200	Assembled
65	R58	1	RES 30K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF3002V	Assembled
66	R59	1	RES 21.5K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF2152V	Assembled
67	R61, R63, R138, R145, R266	5	RES 100K OHM 1/4W 1% 0603 SMD	Rohm Semiconductor	ESR03EZPF1003	Assembled
68	R64	1	RES 200 OHM 1/4W 1% 0603 SMD	Rohm Semiconductor	ESR03EZPF2000	Assembled
69	R65	1	RES 43.2K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB4322V	Assembled
70	R66	1	RES 280K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF2803V	Assembled
71	R77	1	RES 5.1K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF5101V	Assembled
72	R94	1	RES 0.015 OHM 3W 1% 2512 WIDE	Yageo	KRL6432E-M-R015-F-T1	Assembled
73	R95	1	RES 95.3K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0795K3L	Assembled
74	R96	1	RES 71.5K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0771K5L	Assembled
75	R97	1	RES 53.6K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF5362V	Assembled
76	R98, R100, R121, R134	4	RES 120K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF1203V	Assembled
77	R99	1	Thick Film Resistors - SMD 0603 63.4Kohms 0.2W 1% Tol	Panasonic Electronic Components	ERJ-P03F6342V	Assembled
78	R101	1	RES 8.2K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB822V	Assembled
79	R102	1	RES 7.50K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-077K5L	Assembled
80	R103	1	RES 14.7K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0714K7L	Assembled
81	R104	1	RES 56K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0756KL	Assembled
82	R106	1	RES 5.0K OHM .15W 0.1% 0603 SMD	Vishay Thin Film	PNM0603E5001BST5	Assembled
83	R107	1	RES 115K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-07115KL	Assembled
84	R111	1	RES 46.4K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF4642V	Assembled
85	R112	1	RES 12.1K OHM 1/10W 1% 0603 SMD	Yageo	RC0603FR-0712K1L	Assembled
86	R113	1	RES 154K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB1543V	Assembled
87	R115	1	ES 250 OHM 2W 1% 4124	Stackpole Electronics Inc	SM4124FT250R	Assembled
88	R116	1	RES 11K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB113V	Assembled
89	R117	1	RES 249K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF2493V	Assembled
90	R118	1	RES 49.9 OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF49R9V	Assembled

91	R119	1	RES 49.9K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF4992V	Assembled
92	R120	1	RES 10K OHM .4W 1% 0805 SMD	Rohm Semiconductor	ESR10EZPF1002	Assembled
93	R122	1	RES 110K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB114V	Assembled
94	R124	1	RES 12.4K OHM 1/10W .1% 0603 SMD	Panasonic Electronic Components	ERA-3AEB1242V	Assembled
95	R125	1	RES 2.00 OHM 1.5W 1% 1218 SMD	Vishay Dale	CRCW12182R00FKEKHP	Assembled
96	R126	1	RES 1M OHM 2W 1% 2512	Stackpole Electronics Inc	HVCB2512FKC1M00	Assembled
97	R127	1	RES 0.05 OHM 2W 1% 2512	Stackpole Electronics Inc	CSRN2512FK50L0	Assembled
98	R143	1	RES 47K OHM 1/10W 1% 0603 SMD	Panasonic Electronic Components	ERJ-3EKF4702V	Assembled
99	R136	0	RES 1K OHM 1/4W 1% 0603 SMD	Rohm Semiconductor	ERJ-3EKF1002V	DNP
100	SW2	1	SWITCH TACTILE SPST-NO 0.05A 24V	Omron Electronics Inc- EMC Div	B3S-1000P	Assembled
101	T1	1	TRANSFORMER 475UH SMD	Würth Electronics Midcom	760390015	Assembled
102	T2	1	Flyback Regulator Transformer 50uH	Würth Elektronik	750342156	Assembled
103	T3	1	150uH Flyback Regulator Transformer	RENCO	RLTI-1046	Assembled
104	U1	1	Tiva C Series Microcontroller	TI	TM4C1237E6PZ	Assembled
105	U2	1	IC EEPROM 2KBIT 1MHZ 8SOIC	ATMEL	AT24C02C-SSHM-T SL901	Assembled
106	U3	1	IC SUPERVISOR MPU ADJ 6SON	TI	TPS3897ADRYR	Assembled
107	U5	1	IC VREF SERIES PREC 3V SOT-23-6	TI	REF3230AIDBVT	Assembled
108	U6	1	IC HALF-DUPLEX RS485 TXRX 16SOIC	TI	ISO3082DW	Assembled
109	U7	1	IC REG MULTI CONFIG SYNC 16WQFN	TI	TPS55010RTER	Assembled
110	U8	1	IC CPLD 64MACROCELLS 44TQFP	Lattice Semiconductor Corporation	LC4064V-75TN44I	Assembled
111	U9	1	IC ESD-PROT ARRAY 4CH SC70- 6	TI	TPD4E1B06DCKR	Assembled
112	U10, U11	2	Rugged High Speed Header	Samtec	ERM8-025-05.0-L-DV-TR	Assembled
113	U12	1	IC CTRLR HOT SWAP 48V 10- MSOP	TI	LM5069MM-2/NOPB	Assembled
114	U13, U15	2	IC REG BUCK SYNC ADJ 0.6A 8SO	TI	LM5017MR/NOPB	Assembled
115	U14	1	IC REG BUCK SYNC ADJ 2A 20TSSOP	TI	LM20242MH/NOPB	Assembled
116	Y1	1	CRYSTAL 25MHZ 10PF SMD	Abracon Corporation	ABM10-25.000MHZ-D30-T3	Assembled
117	Y2	1	OSCILLATOR XO 25MHZ 3.3V SMD	CTS-Frequency Controls	CB3LV-3I-25M0000	Assembled

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