

Bill of Materials

TI DESIGNS: TIDA-00203

Compact CAN-to-Ethernet Converter using 32-bit ARM® Cortex™-M4F MCU

Item	Fitted/ Not fitted	Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number
1	Fitted	1	C1	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	Kemet	C0603C106M9PACTU
2	Fitted	3	C2, C7, C10	CAP, CERM, 0.1uF, 16V, +/-10%, X5R, 0603	MuRata	GRM188R61C104KA01D
3	Fitted	1	C3	Capacitor, 3300pF, 50V, 10%, X7R, 0603	TDK Corporation	C1608X7R1H332K
4	Fitted	4	C4, C27, C28, C34	Capacitor, 0.01uF 25V, 10% 0402 X7R	Taiyo Yuden	TMK105B7103KV-F
5	Fitted	16	C5, C11, C12, C13, C16, C22, C23, C24, C25, C35, C37, C38, C39, C40, C41, C42	Capacitor, 0.1uF 50V, 20% 0603 X7R	TDK Corporation	C1608X7R1H104M
6	Fitted	1	C6	Capacitor, 22uF 6.3V 20% X5R 0805	TDK Corporation	C2012X5R0J226M
7	Fitted	1	C8	CAP CER 1000PF 2KV 20% X7R 1210	KEMET	C1210C102MGRACTU
8	Fitted	1	C9	Capacitor, 4700pF, 2kV, 10%, X7R, 1812	AVX	1812GC472KAT1A
9	Fitted	6	C14, C15, C45, C46, C47, C48	CAP, CERM, 33pF, 50V, +/-5%, C0G/NP0, 0402	MuRata	GRM1555C1H330JA01D
10	Fitted	2	C17, C21	Capacitor, 4.7uF, 6.3V, 10% 0805, X5R	Taiyo Yuden	JMK212BJ475KG-T
11	Fitted	1	C18	Capacitor, 2.2uF, 16V, 10%, 0603, X5R	Murata	GRM188R61C225KE15D
12	Fitted	4	C19, C20, C26, C32	Capacitor, 1uF , X5R, 10V, 0402	TDK Corporation	C1005X5R1A105M050BB
13	Fitted	3	C29, C31, C33	Capacitor, 0.1uF 16V, 10% 0402 X7R	Taiyo Yuden	EMK105B7104KV-F
14	Fitted	2	C30, C44	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	AVX	06033C104JAT2A
15	Fitted	1	C36	Capacitor, 22uF 6.3V 20% X5R 0805	TDK Corporation	C2012X5R0J226M/1.25
16	Fitted	1	C43	Capacitor, 2.2uF 50V 10% X5R 0805	TDK Corporation	C2012X5R1H225K
17	Fitted	5	D1, D2, D6, D7, D11	Diode, P-N, 70V, 0.2A, SOT-323	Diodes Inc	DESD1P0RFW-7
18	Fitted	1	D3	Quad Channel High Speed ESD Protection Device, DCK0006A	TEXAS INSTRUMENTS	TPD4E1U06DCK
19	Fitted	3	D4, D5, D16	Diode, 5.6V ESD Suppressor 0402	Epcos	B72590D0050H160
20	Fitted	2	D8, D14	LED, Green 565nm, Clear 0805 SMD	Lite on	LTST-C171GKT
21	Fitted	1	D9	Diode, Zener, 3.9V, 550mW, SMB	ON Semiconductor	1SMB5915BT3G
22	Fitted	1	D10	Diode, Schottky, 200V, 1A, PowerDI123	Diodes Inc.	DFLS1200-7
23	Fitted	2	D12, D15	LED AMBER CLEAR 0805 SMD	Lite on	LTST-C170AKT
24	Fitted	1	D13	LED, Red 630nm, Clear 0805 SMD	Lite on	LTST-C171EKT
25	Fitted	1	FB1	FERRITE CHIP 1000 OHM 300MA 0603	TDK Corporation	MMZ1608B102C
26	Fitted	6	FID1, FID2, FID3, FID4, FID5, FID6	Fiducial mark. There is nothing to buy or mount.	N/A	N/A
27	Fitted	6	H1, H2, H3, H4, H5, H6	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH
28	Fitted	1	J1	Connector, RJ45 NO MAG, shielded THRU HOLE	TE connctivity	6116526-1
29	Fitted	4	J2, J4, J6, J8	Terminal Block, 4x1, 2.54mm, TH	On Shore Technology Inc	OSTVN02A150
30	Fitted	2	J3, J7	Header, 2X5 2mm spacing	Harwin Inc	M22-2020505
31	Fitted	1	J5	Connector, USB micro AB Receptacle Reversed SMD	HIROSE ELECTRIC CO. LTD.	ZX62R-AB-5P
32	Fitted	1	J9	CONN MICRO HS TERM STRP HDR 50 POS	Samtec	ERM8-025-05.0-L-DV-K-TR
33	Not Fitted	0	J10	Header, 2mm, Low Profile 2x3	Samtec	TMM-103-01-G-D-RA
34	Fitted	1	L1	Inductor 10uH, SMD 2.8x2.8mm, 0.5A, 0.47 Ohm	Würth Electronics Inc	744029100

Item	Fitted/ Not fitted	Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number
35	Not Fitted	0	LBL1	Thermal Transfer Printable Labels, 0.650 W x 0.200" H - 10	000 per roll"	Brady
36	Fitted	5	R1, R2, R19, R59, R61	Resistor, 2.2K OHM 1/10W 5% 0603 SMD	Vishay-Dale	CRCW06032K20JNEA
37	Fitted	2	R3, R60	RES, 2.2k ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW04022K20JNED
38	Fitted	12	R4, R6, R8, R23, R24, R30, R32, R37, R38, R40, R47, R48	Resistor, 0 ohm, 1/10W, 5%, 0402	Panasonic Electronic Components	ERJ-2GE0R00X
39	Not Fitted	0	R5	RES, 1.0Meg ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW04021M00JNED
40	Fitted	1	R7	Resistor, 1M OHM 1/10W 5% 0603 SMD	Panasonic Electronic Components	ERJ-3GEYJ105V
41	Fitted	4	R9, R10, R11, R13	Resistor, 49.9 OHM 1/10W 1% 0603 Thick	Panasonic Electronic Components	ERJ-3EKF49R9V
42	Fitted	2	R12, R56	Resistor, 330 ohm, 1/10W, 5%, 0402	Panasonic Electronic Components	RC0402FR-07330RL
43	Fitted	5	R14, R15, R35, R36, R46	RES, 33 ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW040233R0JNED
44	Fitted	1	R16	Resistor, 1 OHM 1/10W 1% 0603, Thick	Panasonic Electronic Components	ERJ-3RQF1R0V
45	Fitted	8	R17, R18, R20, R33, R39, R44, R52, R54	Resistor, 10k ohm, 1/10W, 5%, 0402 Thick Film	Yageo America	RC0402FR-0710KL
46	Fitted	1	R21	Resistor, 1K Ohm, 1/10W, 5%, SMD, Thick	Panasonic Electronic Components	ERJ-3GEYJ102V
47	Fitted	4	R22, R49, R58, R62	Resistor, 0 OHM 1/10W 0603 SMD	Panasonic Electronic Components	ERJ-3GEY0R00V
48	Fitted	2	R25, R45	RES, 120 ohm, 1%, 0.25W, 1206	Yageo America	RC1206FR-07120RL
49	Fitted	4	R26, R27, R29, R34	Resistor, 75 Ohm, 1/10W, 1%, SMD, Thick	Panasonic Electronic Components	ERJ-3EKF75R0V
50	Fitted	1	R28	RES 1M OHM 5% 1206 TF	Panasonic Electronic Components	ERJ-8GEYJ105V
51	Fitted	1	R31	Resistor, 51 ohm, 1/10W, 5%, 0402	Panasonic Electronic Components	ERJ-2GEJ510X
52	Fitted	1	R41	Resistor, 4.87K Ohm, 1/10W, 1%, SMD, Thick	Panasonic Electronic Components	ERJ-3EKF4871V
53	Fitted	1	R42	Resistor, 10K OHM 1/10W 5% 0603 SMD	Panasonic Electronic Components	ERJ-3GEYJ103V
54	Not Fitted	0	R43	RES, 33 ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW040233R0JNED
55	Fitted	3	R50, R53, R55	Resistor, 330 OHM 1/10W 5% 0603 SMD	Panasonic Electronic Components	ERJ-3GEYJ331V
56	Fitted	1	R51	Resistor, 100K OHM 1/10W 5% 0603 Thick	Panasonic Electronic Components	ERJ-3GEYJ104V
57	Fitted	1	R57	RES, 0.1 ohm, 1%, 0.1W, 0603	Panasonic	ERJ-3RSFR10V
58	Fitted	1	SW1	Switch, Tact 6mm SMT, 160gf	Omron Electronics Inc-EMC Div	B3S-1000
59	Fitted	1	T1	TRANSFORMER, MDL, XFMR SGL ETHR LAN, SOIC-16	PULSE ELECTRONICS	HX1198FNL
60	Fitted	1	U1	IC, RS485 TRANSCEIVER LP, 8-SOIC	TEXAS INSTRUMENTS	SN65HVD72DR
61	Fitted	1	U2	Stellaris MCU TM4C129XNCZAD 212 BGA	TEXAS INSTRUMENTS	TM4C129XNCZAD
62	Fitted	1	U3	Load Switch, 5.5V, SOT23-5, TPS2051BDBV	TEXAS INSTRUMENTS	TPS2051BDBVT
63	Fitted	1	U4	CAN Transceiver with Fast Loop Times for Highly Loaded Networks, 85 mA, 5 V, -40 to 125 degC, 8-pin SOIC (D), Green (RoHS & no Sb/Br)	TEXAS INSTRUMENTS	SN65HVD256D
64	Fitted	1	U5	Regulator, Step Down 3.3V, 0.5A	TEXAS INSTRUMENTS	TPS62177DQC
65	Fitted	1	U6	IC, Current Shunt Monitor, -16V to 80V Common-Mode Range	TEXAS INSTRUMENTS	INA196AIDBVR
66	Fitted	1	Y1	Crystal, 25.00MHz 5.0x3.2mm SMT	CTS-Frequency Controls	445I23D25M00000

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