

Bill of Materials

TI DESIGNS

TIDM-1002

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	PCB1		Printed Circuit Board	Any	USS-AFE-BP	-		
2	2	C1, C6	22uF	CAP, CERM, 22 μ F, 10 V, +/- 20%, X5R, 0603	Samsung Electro-Mech	CL10A226MP8NUNE		0603	
3	8	C2, C3, C4, C7, C8, C11, C26,	2.2uF	CAP, CERM, 2.2 μ F, 16 V, +/- 10%, X5R, 0603	MuRata	GRM188R61C225KE15D		0603	
4	1	C5	4.7uF	CAP, CERM, 4.7 μ F, 16 V, +/- 10%, X5R, 0603	MuRata	GRM188R61C475KAAJ		0603	
5	8	C9, C10, C13, C14, C15, C19,	0.1uF	CAP, CERM, 0.1 μ F, 25 V, +/- 10%, X5R, 0603	MuRata	GRM188R71E104KA01D		0603	
6	6	C12, C20, C21, C23, C30, C33	1uF	CAP, CERM, 1 μ F, 16 V, +/- 10%, X7R, 0603	MuRata	GRM188R71C105KA12D		0603	
7	1	C16	620pF	CAP, CERM, 620 pF, 50 V, +/- 5%, COG/NPO, 0603	MuRata	GRM1885C1H621JA01D		0603	
8	1	C17	68pF	CAP, CERM, 68 pF, 50 V, +/- 5%, COG/NPO, 0603	MuRata	GRM1885C1H680JA01D		0603	
9	1	C18	33pF	CAP, CERM, 33 pF, 50 V, +/- 5%, X7R, 0603	MuRata	GRM1885C1H330JA01D		0603	
10	1	C24	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 5%, X7R, 0603	Kemet	C0603C472J5RACTU		0603_HV	
11	1	C25	680pF	CAP, CERM, 680 pF, 50 V, +/- 5%, X7R, 0603	MuRata	GRM1885C1H681JA01D		0603	
12	1	C31	0.22uF	CAP, CERM, 0.22 μ F, 10 V, +/- 10%, X7R, 0603	MuRata	GRM188R71A224KA01D		0603	
13	2	FB1, FB2	220 ohm	Ferrite Bead, 220 ohm @ 100	TDK	MPZ1608S221A		0603	
14	8	J1, J2, J3, J4, J7, JP1, JP3, JP4		Header, 100mil, 2x1, Gold, TH	Sullins Connector Solut	PBC02SAAN		Sullins_PBC02SAAN	
15	2	J5, J6		Receptacle, 2.54mm, 2x1, Gold, TH	Samtec	SSQ-102-03-F-S		Samtec_SSQ-102-03-x-S	
16	1	JP2		Header, 100mil, 3x1, Gold, TH	Sullins Connector Solut	PBC03SAAN		PBC03SAAN	
17	1	L1	1uH	Inductor, Multilayer, Ferrite, 1 μ H,	MuRata	LQM21PN1R0MCO0D		0805_HV	
18	2	P1, P2		Receptacle, 2.54mm, 10x2, Tin, TH	Samtec	ESQ-110-13-T-D-LL		Samtec_ESQ-110-13-x-D-LL	
19	16	R1, R2, R3, R10, R13, R15, R10	0	RES, 0, 5%, 0.1 W, 0603	Yageo America	RC0603JR-070RL		0603	
20	2	R5, R39	24.9k	RES, 24.9 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0724K9L		0603	
21	4	R6, R7, R38, R41	2.00Meg	RES, 2.00 M, 1%, 0.1 W, 0603	Yageo America	RC0603FR-072ML		0603	
22	2	R9, R11	806	RES, 806, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07806RL		0603	
23	3	R14, R27, R46	402	RES, 402, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07402RL		0603, 0603_HV, 0603_HV	
24	1	R16	2.00k	RES, 2.00 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-072KL		0603	
25	1	R23	10.0	RES, 10.0, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0710RL		0603	
26	1	R24	1.82k	RES, 1.82 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-071K82L		0603	
27	3	R25, R42, R45	49.9	RES, 49.9, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0749R9L		0603	
28	1	R31	75.0	RES, 75.0, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0775RL		0603_HV	

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29	1	R33	499	RES, 499, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07499RL		0603	
30	1	TP1	Orange	Test Point, Miniature, Orange, TH	Keystone	5003		Keystone5003	
31	2	TP2, TP3	Black	Test Point, Miniature, Black, TH	Keystone	5001		Keystone5001	
32	2	U1, U3		Ultra-Low Leakage Load Switch, DBV0006A	Texas Instruments	TPS22860DBVR		DBV0006A_N	
33	1	U2		3.5-MHz High Efficiency Step-Up	Texas Instruments	TPS61240DRVR	TPS61240DRVT	DRV0006A	
34	3	U4, U5, U7		10-Ω SPDT ANALOG SWITCH SINGLE-CHANNEL 2:1 MULTIPLEXER/DEMULTIPLEXER, DCK0006A	Texas Instruments	TSSA9411DCKR	TSSA9411DCKT	DCK0006A_N	
35	1	U6		Dual-Bit Dual-Supply Bus	Texas Instruments	SN74LVC2T45DCTR	SN74LVC2T45DCTT	DCT0008A_N	
36	1	U8		Ultra Low Power, Rail-to-Rail Out, Negative Rail In, VFB Amplifier, 2.5 to 5.5 V, -40 to 125 degC, 6-pin SOT23 (DBV6), Green (RoHS & no Sb/Br)	Texas Instruments	OPA835IDBVT	Equivalent	DBV0006A_N	
37	1	U9		Very Low Power, Rail to Rail Out,	Texas Instruments	OPA836IDBVT	Equivalent	DBV0006A_N	
38	1	U10		Ultra Low Power, Rail-to-Rail Output, Fully-Differential Amplifier, DGK0008A	Texas Instruments	THS4531IDGK		DGK0008A_N	
39	0	C27	2.2uF	CAP, CERM, 2.2 μF, 16 V, +/- 10%,	MuRata	GRM188R61C225KE15D		0603	
40	0	C32	560pF	CAP, CERM, 560 pF, 50 V, +/- 10%, X7R, 0603	MuRata	GRM188R71H561KA01D		0603	
41	0	FID1, FID2, FID3		Fiducial mark. There is nothing to	N/A	N/A		Fiducial10-20	
42	0	LBL1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Brady	THT-14-423-10	-	Label_650x200	
43	0	R4	200k	RES, 200 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07200KL		0603	
44	0	R8, R12, R17, R21	0	RES, 0, 5%, 0.1 W, 0603	Yageo America	RC0603JR-070RL		0603	
45	0	R28	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	Vishay Draloric	RCG060310K0FKEA		0603	
46	0	R36, R40, R47	2.00Meg	RES, 2.00 M, 1%, 0.1 W, 0603	Yageo America	RC0603FR-072ML		0603	
47	0	R37	24.9k	RES, 24.9 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0724K9L		0603	
48	0	R43, R44	49.9	RES, 49.9, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0749R9L		0603	

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