

TIDEP-01036 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	!PCB	1		TIDEP-01036	Any	Printed Circuit Board	
2	C1, C3, C27	3	10uF	GRM155R61A106ME11D	MuRata	CAP. CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	402
3	C2	1	0.1uF	CGA2B3X7R1H104K050BB	TDK	CAP. CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
4	C4, C26	2	22uF	GRM31CR70J226ME19K	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, 1206, 22uF, X7R, 15%, 20%, 6.3V	1206
5	C5	1	4.7uF	GRM21BR61H475KE51L	MuRata	CAP. CERM, 4.7 uF, 50 V, +/- 10%, X5R, 0805	805
6	C6	1	0.047uF	CGA2B3X7R1H473K050BB	TDK	CAP. CERM, 0.047 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
7	C7	1	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP. CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
8	C8	1	1uF	CGA3E1X7R1V105K080AC	TDK	CAP. CERM, 1 uF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
9	C9, C15, C21	3	10uF	GRM188Z71A106MA73D	MuRata	CAP. CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	603
10	C10	1	0.47uF	GRM188R71C474KA88D	MuRata	CAP. CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0603	603
11	C11	1	470pF	GRM1555C1H471JA01D	MuRata	CAP. CERM, 470 pF, 50 V, +/- 5%, C0G/NP0, 0402	402
12	C12	1	1uF	GCM188R71C105KA64D	MuRata	CAP. CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
13	C13, C38	2	0.1uF	GCM155R71H104KE02D	MuRata	CAP. CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
14	C14	1	4.7uF	GCJ21BR71C475KA01L	Murata	Multilayer Ceramic Capacitors MLCC - SMD/SMT 0805 4.7uF 10%, 16VDC, X7R 15%	805
15	C16, C20, C36	3		GCM188D70J106ME36D	Murata	Chip Multilayer Ceramic Capacitors for Automotive	603
16	C17	1	2.2uF	GRT155C71A225KE13D	Murata	Multi-Layer Ceramic Capacitor 2.2uF 10V X7S ±10% 0402 Paper T/R	402
17	C18, C22, C41	3		GRT155R70J105KE01D	Murata	1uF ±10% 6.3V Ceramic Capacitor X7R 0402 (1005 Metric)	402
18	C19, C23, C28, C37	4	2.2uF	GRT155C71A225KE13	MuRata	CAP. CERM, 2.2 uF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	402
19	C29	1	47uF	GRM31CR60J476ME19L	MuRata	CAP. CERM, 47 uF, 6.3 V, +/- 20%, X5R, 1206	1206
20	C30	1	2.2uF	CL03A225M03CRNC	Samsung Electro-Mechanics	CAP. CERM, 2.2 uF, 6.3 V, +/- 20%, X5R, 0201	201
21	C31	1	0.1uF	GRM033C71A104KE14D	MuRata	CAP. CERM, 0.1 uF, 10 V, +/- 10%, X7S, 0201	201
22	C32, C33	2	4.7pF	GJM1555C1H477BB01D	MuRata	CAP. CERM, 4.7 pF, 50 V, +/- 2%, C0G/NP0, 0402	402
23	C34	1	1000pF	GCM155R71H102KA37D	MuRata	CAP. CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
24	C35	1	0.22uF	GCM155R71C224KE02D	MuRata	CAP. CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402
25	C39	1	220pF	8.85012E+11	Würth Elektronik	CAP. CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0402	402
26	D1	1	Green	APHHS1005CGCK	Kingbright	LED, Green, SMD	402
27	D4	1	30V	PMEG3020EP,115	Nexperia	Diode, Schottky, 30 V, 2 A, AEC-Q101, SOD-128	SOD-128
28	J1	1		M50-3531042	Harwin	Header, 1.27mm, 10x1, Gold, TH	Header, 1.27mm, 10x1, TH
29	J2, J3	2		GRPB071VWVN-RC	Sullins	Connector Header Through Hole 7 position 0.050" (1.27mm)	HDR7
30	L1	1	3.3uH	XAL4030-332MEC	Coilcraft	Fixed Inductors XAL4030 AEC-Q200 3.3 uH 20 % 6.6 A	SMT_INDUCTOR_4M M0_4MM0
31	L2	1	0.47uH	DFE201210U-R47M=P2	Murata	470nH Shielded Wirewound Inductor 3A 42mOhm Max 0805 (2012 Metric)	0805 (2012)
32	L3	1	0.1uH	LQM2MPZR10MJHL	Murata	100nH Shielded Multilayer Inductor 4A 19mOhm Max 0806 (2016 Metric)	0806 (2016)
33	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
34	Q1	1	100V	BSS123W-7-F	Diodes Inc.	MOSFET, N-CH, 100 V, 0.17 A, SOT-323	SOT-323
35	R1, R2, R4, R7, R8, R20, R23, R24, R25, R39, R203, R206	12	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
36	R3, R11, R29	3	100k	CRCW0402100KFKEDC	Vishay	100 kOhms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Thick Film	402
37	R5, R26, R36	3	0	HCO603ZT0R00	Stackpole Electronics	RES 0 OHM JUMPER 1/4W 0603	603
38	R6	1	18.0k	CRCW040218K0FKED	Vishay-Dale	RES, 18.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
39	R13	1	3.00k	CRCW04023K00FKED	Vishay-Dale	RES, 3.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
40	R14, R16, R17, R18, R19, R93	6	33.2	CRCW020133R2FNED	Vishay-Dale	RES, 33.2, 1%, 0.05 W, 0201	201
41	R15, R41, R42	3	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
42	R22	1	47.5k	AC0402FR-0747K5L	Yageo	Res Thick Film 0402 47.5K Ohm 1% 1/16W ±100ppm°C Molded SMD Paper T/R	402
43	R27, R28	2	510	RC0201JR-07510RL	Yageo America	RES, 510, 5%, 0.05 W, 0201	201
44	R32	1	0	MCT06030Z0000ZP500	Vishay/Beyschlag	RES, 0, 5%, 0.125 W, 0603	603
45	R38	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
46	R73, R74	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
47	R204, R207	2	7.87k	CRCW04027K87FKED	Vishay-Dale	RES, 7.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
48	R205, R208	2	82.5k	CRCW040282K5FKED	Vishay-Dale	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
49	U1	1		AWRL1432BGAMFQ1	Texas Instruments	AWRL1432BGAMFQ1	FCCSP102
50	U2	1		LMR43620M3CRPERQ1	Texas Instruments	36-V, 2-A Buck Converter with 1.5 uA IQ in 2-mm x 2-mm HotRod QFN	VQFN-HR9
51	U3	1		TPS6285020MODRLRQ1	Texas Instruments	2.7-V to 6-V Adjustable-Frequency Step-Down Converter in SOT583 Package	FCSOT8
52	U4	1		MX25V1635FZNOQ3	Macronix	NOR Flash 16Mbit 16M x 1/8M x 2/4M x 4 Serial-SPI 3.3V 8-Pin WSON	WSON8
53	U5	1		TLJN1021ADDF	Texas Instruments	Local Interconnect Network (LIN) Transceiver with Local Wake and Inhibit	SOT23-8
54	Y1	1		FW4000044Q	Diodes	40MHz ±10ppm Crystal 8pF 50 Ohms 4-SMD, No Lead	4-SMD-2.0x1.6mm
55	C24, C25	0	22uF	GRM31CR70J226ME19K	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, 1206, 22uF, X7R, 15%, 20%, 6.3V	1206
56	FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
57	R9, R10	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
58	R12, R30, R33, R152	0	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
59	R21	0	0	HCO603ZT0R00	Stackpole Electronics	RES 0 OHM JUMPER 1/4W 0603	603
60	R31	0	0	MCT06030Z0000ZP500	Vishay/Beyschlag	RES, 0, 5%, 0.125 W, 0603	603

## IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to [TI's Terms of Sale](#) or other applicable terms available either on [ti.com](https://www.ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
Copyright © 2024, Texas Instruments Incorporated