

TIDA-00300 REV E3 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C21, C22	3	2.2uF	GRM21BR71E225KA73L	MuRata	CAP, CERM, 2.2uF, 25V, +/-10%, X7R, 0805	0805
C2, C11	2	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210
C3	1	0.47uF	ESD61C474K4T2A-28	AVX Corporation	CAP, CERM, 0.47uF, 100V, +/-10%, X7R, 1206	1206
C4	1	1000pF	1812GC102KAT1A	AVX	CAP, CERM, 1000pF, 2000V, +/-10%, X7R, 1812	1812
C5	1	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7uF, 50V, +/-10%, X7R, 1206	1206
C6, C14, C41	3	0.01uF	06031C103JAT2A	AVX	CAP, CERM, 0.01uF, 100V, +/-5%, X7R, 0603	0603
C7, C12, C15, C17, C32, C45	6	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C8	1	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10uF, 25V, +/-10%, X7R, 1206	1206
C9, C23	2	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210	1210
C10, C18, C27	3	4.7uF	C2012X5R1H475K125AB	TDK	CAP, CERM, 4.7uF, 50V, +/-10%, X5R, 0805	0805
C13, C24, C33, C37	4	1uF	C1608X5R1H105K080AB	TDK Corporation	CAP, CERM, 1uF, 50V, +/-10%, X5R, 0603	0603
C16	1	47uF	T495X476K035ATE300	Kemet	CAP, TA, 47uF, 35V, +/-10%, 0.3 ohm, SMD	7343-43
C19	1	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	1210
C20	1	1uF	08055C105KAT2A	AVX	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805
C25, C34, C38, C42	4	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	0603
C26, C30, C35, C36, C39, C40	6	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C28, C29	2	22uF	GRM21BR61C226ME44	MuRata	CAP, CERM, 22uF, 16V, +/-20%, X5R, 0805	0805
C31	1	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0805	0805
C43	1	3300pF	06031C332JAT2A	AVX	CAP, CERM, 3300pF, 100V, +/-5%, X7R, 0603	0603
C44	1	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C46	1	1000pF	06031C102JAT2A	AVX	CAP, CERM, 1000pF, 100V, +/-5%, X7R, 0603	0603
C47	1	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	1206_190
C48	1	47uF	ECA-1VM470	Panasonic	CAP, AL, 47 uF, 35 V, +/- 20%, TH	CAPR, 5x11mm
C49, C55, C56	3	22uF	GRM31CR71A226KE15L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, 1206	1206
C50, C60, C61	3	10uF	C2012X7R1A106K125AC	TDK	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
C51, C54	2	2.2uF	GRM31CR71H225KA88L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, 1206	1206
C52, C59	2	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C53, C65	2	15pF	GRM1885C1H150JA01D	MuRata	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C57, C58, C63	3	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
C62	1	0.033uF	GRM188R71H333KA61D	MuRata	CAP, CERM, 0.033 uF, 50 V, +/- 10%, X7R, 0603	0603
C64	1	82pF	GRM1885C1H820JA01D	MuRata	CAP, CERM, 82 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C66	1	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
D1, D3, D11	3	Green	LG L29K-G2J1-24-Z	OSRAM	LED SmartLED Green 570NM	0603
D2, D6, D9	3	200V	DFLS1200-7	Diodes Inc.	Diode, Schottky, 200V, 1A, PowerDI123	PowerDI123
D4, D5	2	18V	DZ2W18000L	Panasonic	Diode, Zener, 18V, 1W, SOD-123	SOD-123
D7	1	60V	PMEG6010CEH,115	NXP Semiconductor	Diode, Schottky, 60V, 1A, SOD-123F	SOD-123F
D10	1	5.9V	PTZTE255.6B	Rohm Semiconductor	DIODE ZENER 5.9V 1W PMDS	DO-214AC, SMA
D12	1	45V	SDM10U45-7-F	Diodes Inc.	Diode, Schottky, 45V, 0.1A, SOD-523	SOD-523
D13, D16	2	100V	BAT41ZFILM	STMicroelectronics	Diode, Schottky, 100 V, 0.2 A, SOD-123	SOD-123
D14, D15	2	16V	MMSZ4703T1G	ON Semiconductor	Diode, Zener, 16 V, 500 mW, SOD-123	SOD-123
D17, D18	2	30V	B0530W-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.5 A, SOD-123	SOD-123
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
J1	1		282834-4	TE Connectivity	Receptacle, 100mil, 4X1 TH	10.62x10x6.5 mm

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J2, J3	2		1725711	Phoenix Contact	Terminal Block, 8x1, 2.54 mm, TH	8POS Terminal Block
J4	1		ED120/2DS	On-Shore Technology	TERMINAL BLOCK 5.08MM VERT 2POS, TH	TERM_BLK, 2pos, 5.08mm
J5	1		5-146278-3	TE Connectivity	Header, 100mil, 3x1, Tin, TH	Header, 3x1, 100mil, TH
L1, L3, L4	3	1000 OHM	MMZ1608B102C	TDK Corporation	FERRITE CHIP 1000 OHM 300MA 0603	0603
L2	1	3.3µH	B82422H1332K	EPCOS INC.	Inductor, Chip, ±10%	1210
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"H x 0.200"W
R1	1	9.42k	RNCF0603FKE9K42	Vishay-Dale	RES, 9.42k ohm, 1%, 0.063W, 0603	0603
R2	1	110k	RG1608P-114-B-T5	Susumu Co Ltd	RES, 110k ohm, 0.1%, 0.1W, 0603	0603
R3, R5	2	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7k ohm, 5%, 0.1W, 0603	0603
R4	1	27.0k	RC0603FR-0727KL	Yageo America	RES, 27.0k ohm, 1%, 0.1W, 0603	0603
R6	1	0	RC1206JR-070RL	Yageo America	RES, 0 ohm, 0.1W, 1206	1206
R7, R10, R11, R20	4	10.0k	CRCW060310K0FKEA	Vishay Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R8, R13, R16, R17, R18, R21, R25, R27	8	0	RC0603JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.1W, 0603	0603
R12	1	1.20k	RG1608P-122-B-T5	Susumu Co Ltd	RES, 1.20k ohm, 0.1%, 0.1W, 0603	0603
R22, R23, R24, R26	4	1.50k	CRCW06031K50FKEA	Vishay-Dale	RES, 1.50k ohm, 1%, 0.1W, 0603	0603
R28	1	60.4k	ERA-3AEB6042V	Panasonic Electronic Compon	RES, 60.4k ohm, 0.1%, 0.1W, 0603	0603
R29	1	4.87k	RC0603FR-074K87L	Yageo America	RES, 4.87k ohm, 1%, 0.1W, 0603	0603
R30	1	340k	CRCW0603340KFKEA	Vishay Dale	RES, 340k ohm, 1%, 0.1W, 0603	0603
R31	1	187k	ERA-3AEB1873V	Panasonic Electronic Compon	RES 187K OHM 1/10W .1% 0603 SMD	0603
R32	1	56.2k	ERA-3AEB5622V	Panasonic Electronic Compon	RES, 56.2k ohm, 0.1%, 0.1W, 0603	0603
R33, R34, R35, R36	4	0	RC1206JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.25W, 1206	1206
R40, R49	2	1.0k	ERJ-6GEYJ102V	Panasonic	RES, 1.0 k, 5%, 0.125 W, 0805	0805
R41, R50	2	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R42	1	220k	CRCW0603220KJNEA	Vishay-Dale	RES, 220 k, 5%, 0.1 W, 0603	0603
R43	1	16.2k	CRCW060316K2FKEA	Vishay-Dale	RES, 16.2 k, 1%, 0.1 W, 0603	0603
R44	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R45	1	75k	CRCW060375K0JNEA	Vishay-Dale	RES, 75 k, 5%, 0.1 W, 0603	0603
R46	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R47	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R48	1	240k	CRCW0603240KJNEA	Vishay-Dale	RES, 240 k, 5%, 0.1 W, 0603	0603
SH-J1	1		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
T1	1	50uH	750342178	Würth Elektronik eiSos	Transformer, 50uH, SMT	17.75x12.7x13.46mm
T2	1	2.7uH	750316449	Würth Elektronik	Transformer, 2.7 uH, SMT	9.5x9.78mm
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13	13	STD	STD	STD	Test Point 40mil pad 20mil drill	
TP14, TP15, TP17, TP20	4		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP16, TP21	2		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP18	1		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP19	1		5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
U1	1		TPS7A3001DGNR	Texas Instruments	-36V, -200mA, Ultralow-Noise, Negative Linear Regulator	MSOP-PowerPAD (DGN) : 8
U2	1		LM5017MRE/NOPB	Texas Instruments	100V, 600mA Constant On-Time Synchronous Buck Regulator, DDA0008B	DDA0008B
U3	1		TPS7A4700RGW	Texas Instruments	36-V, 1-A, 4.17-μVRMS, RF LDO Voltage Regulator, RGW0020A	RGW0020A
U4	1		TPS70933DBVT	Texas Instruments	IC REG LDO 3.3V 0.15A SOT23-5	DBV0005A
U5	1	TPS7A1650 DGNR	TPS7A1650DGNR	TI	IC, 60-V, 6-A IQ, 100-mA, LDO Voltage Regulator with Enable and Power- Good Functions	HTSSOP8
U6	1		ISO7741DBQR	Texas Instruments	High Speed, Robust EMC Quad-Channel Digital Isolators, DBQ0016A (SSOP-16)	DBQ0016A
U7	1		ISO1541D	Texas Instruments	Low-Power Bidirectional I2C Isolators, D0008A	D0008A
U8	1		TPS55010RTER	Texas Instruments	2.95V To 6V Input, 2W, Isolated DC/DC Converter with Integrated FETs, RTE0016F (WQFN-16)	RTE0016F
U9	1		LP2985-50DBVR	Texas Instruments	150-mA Low-noise Low-dropout Regulator With Shutdown, DBV0005A	DBV0005A
U10	1		TVS3300DRVR	Texas Instruments	33-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
U11	1		TVS0500DRVR	Texas Instruments	5-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
FID1, FID2, FID3, FID4, FID5, FID6	0					
R9, R14, R15, R19	0	10.0k	CRCW060310K0FKEA	Vishay Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R37	0	0	RC0603JR-070RL	Yageo America	RES, 0 ohm,5%, 0.1W, 0603	0603
R38	0	20K	TNPW060320K0BEEA	Vishay Dale	RES, 20K ohm, 0.1%, 0.1W, 0603	0603
R39	0	11.3K	ERA-3AEB1132V	panasonic electronic compone	RES, 11.3K ohm, 0.1%, 0.1W, 0603	0603