

TIDA-00300_ISO_Comm_PS REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-00300_ISO_Comm_PS	Any	Printed Circuit Board	
C1, C2, C6, C8, C10, C11, C18, C19, C31, C35, C47, C51, C64, C68, C87, C94, C99	17	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	1210
C3, C4, C5, C7, C9, C12, C13, C16, C17, C20, C21, C30, C32, C34, C36, C41, C42, C48, C50, C53, C55, C58, C59, C65, C67, C82, C83, C85, C86, C88, C89, C95, C100	33	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C14, C15, C33, C49, C66	5	4.7uF	GRM21BR61H475KE51L	TDK	4.7μF ±10% 50V X5R Ceramic Capacitor -55°C ~ 85°C	0805
C22, C23, C29, C43, C44, C52, C54, C60, C61	9	10uF	T491B106K016AT	Vishay-Sprague	CAP, TA, 10 μF, 16 V, +/- 10%, 2 ohm, SMD	3528-21
C24, C27, C45, C46, C62, C63	6	10uF	GRM31CR61H106KA12L	MuRata	CAP, CERM, 10 μF, 50 V, +/- 10%, X5R, 1206	1206
C25	1	0.1uF	GRM155R71A104KA01D	MuRata	CAP, CERM, 0.1uF, 10V, +/-10%, X7R, 0402	0402
C26, C28, C72	3	10uF	C0603C106M9PACTU	Kemet	CAP, CERM, 10 μF, 6.3 V, +/- 20%, X5R, 0603	0603
C37	1	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 μF, 25 V, +/- 5%, X7R, 0603	0603
C38	1	1000pF	GRM1885C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C39, C40, C56, C57	4	1uF	GRM155R61A105KE15D	MuRata	CAP, CERM, 1 uF, 10 V, +/- 10%, X5R, 0402	0402
C69, C92, C96	3	0.1uF	GMK107BJ104KAHT	Taiyo Yuden	0.1μF ±10% 35V Ceramic Capacitor X5R 0603	0603
C70	1	120pF	GRM033R71E121KA01D	MuRata	CAP, CERM, 120 pF, 25 V, +/- 10%, X7R, 0201	0201
C71	1	4.7uF	C1608X7S1A475K080AC	TDK	CAP, CERM, 4.7 μF, 10 V, +/- 10%, X7S, 0603	0603
C73, C74, C103, C104	4	2.2uF	C2012X5R1H225K125AB	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X5R, 0805	0805
C75	1	22uF	C2012X5R1V226M125AC	TDK	CAP, CERM, 22 uF, 35 V, +/- 20%, X5R, 0805	0805
C76	1	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603
C77	1	10uF	C1608X5R1A106M	TDK	CAP, CERM, 10uF, 10V, +/-20%, X5R, 0603	0603
C78, C106	2	0.1uF	GRM155R71C104JA88D	Murata Electronics North Ame	CAP CER 0.1UF 16V 5% X7R 0402	0402
C79, C105	2	2.2uF	C0603C225K8PACTU	Kemet	CAP, CERM, 2.2uF, 10V, +/-10%, X5R, 0603	0603
C80	1	0.01uF	C1608C0G1E103J	TDK	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	0603
C81, C84	2	100pF	0402YC101KAT2A	AVX	CAP, CERM, 100 pF, 16 V, +/- 10%, X7R, 0402	0402
C90, C101	2	10uF	C1210C106M5RACTU	Kemet	CAP, CERM, 10μF ±20% 50V Ceramic Capacitor X7R 1210	1206
C91, C102	2	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1μF ±10% 25V Ceramic Capacitor X7R 0603	0603
C93, C97	2	2.2uF	C0805C225K8RACTU	Kemet	CAP, CERM, 2.2uF, 10V, +/-10%, X7R, 0805	0805
C98	1	0.01uF	GRM188R70J103KA01D	MuRata	CAP, CERM, 0.01 μF, 6.3 V, +/- 10%, X7R, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D1, D2, D3, D4, D25, D26	6	20V	B0520LW-7-F	Diodes Inc	Diode, Schottky, 20V, 0.5A, SOD-123	SOD-123
D5, D6, D9, D10, D12, D14, D15, D16, D18, D19, D20	11	5.6V	MMSZ5232B-7-F	Diodes Inc.	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
D7, D8, D13, D17, D21	5	Green	LG L29K-G2J1-24-Z	OSRAM	LED SmartLED Green 570NM	0603
D11	1	Green	SML-D12M8WT86	ROHM Semiconductor	LED GREEN DIFFUSED 0603 SMD	0603
D22, D23, D24	3	Green	LG M67K-G1J2-24-Z	OSRAM	LED, Green, SMD	2x1.4mm
FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
J1, J2, J4, J5, J6, J7, J8	7		ED120/2DS	On-Shore Technology	TERMINAL BLOCK 5.08MM VERT 2POS, TH	TERM_BLK, 2pos, 5.08mm
J3	1		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Sullins 100mil, 1x2, 230 mil above insulator
L1, L2, L4, L5, L6	5	1000 ohm	MMZ1608B102CTA00	TDK	Ferrite Bead, 1000 ohm @ 100 MHz, 0.3 A, 0603	0603
L3	1	4.7uH	EPL3015-472MLB	Coilcraft	Inductor, Shielded, Ferrite, 4.7 uH, 1.2 A, 0.14 ohm, SMD	Inductor, 3x1.55x3mm
L7	1	1uH	74479275210	Würth Elektronik	Inductor, Shielded, 1 uH, 1.8 A, 0.078 ohm, SMD	2x1.25mm
L8	1	15uH	LQH3NPN150NG0	MuRata	Inductor, Wirewound, Ferrite, 15 uH, 0.37 A, 0.91 ohm, SMD	3.0x0.9x3.0mm
Q1	1	30V	CSD17571Q2	Texas Instruments	MOSFET, N-CH, 30 V, 22 A, DQK0006C (WSON-6)	DQK0006C
R1, R2, R3, R4, R5, R23, R40, R47, R82, R85, R94, R95, R98	13	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R6, R7, R11	3	820	RC0603FR-07820RL	Yageo America	RES, 820, 1%, 0.1 W, 0603	0603
R9, R10, R20, R25, R35, R36, R45, R46, R61, R63, R83, R84, R89, R90, R92	15	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R12, R65, R70	3	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R13, R15	2	1.00Meg	CRCW04021M00FKED	Vishay-Dale	RES, 1.00 M, 1%, 0.063 W, 0402	0402
R14, R16, R18, R19	4	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R17, R60	2	100k	RC0402FR-07100KL	Yageo America	RES, 100 k, 1%, 0.0625 W, 0402	0402
R21	1	4.7k	RC0603JR-074K7L	Yageo America	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R24, R41, R48, R54, R75, R80	6	680	RC0603FR-07680RL	Yageo America	RES, 680, 1%, 0.1 W, 0603	0603
R26, R37, R43, R49, R53, R71	6	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603
R27	1	2.20k	RC0603FR-072K2L	Yageo America	RES, 2.20 k, 1%, 0.1 W, 0603	0603
R28, R31, R32, R39, R51, R66, R67, R68, R69	9	0	RC0402JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.063W, 0402	0402
R30, R33	2	162k	RC0603FR-07162KL	Yageo America	RES, 162 k, 1%, 0.1 W, 0603	0603
R34, R44	2	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R38, R50	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R55	1	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300, 5%, 0.1 W, 0603	0603
R56	1	0	RMCF0603ZTOR00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R58	1	453k	CRCW0402453KFKED	Vishay-Dale	RES, 453 k, 1%, 0.063 W, 0402	0402

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R59	1	100k	RC0201FR-07100KL	Yageo America	RES, 100 k, 1%, 0.05 W, 0201	0201
R73, R78	2	68k	CRCW040268K0JNED	Vishay-Dale	RES, 68 k, 5%, 0.063 W, 0402	0402
R74, R76, R79, R81, R93	5	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R86, R87	2	274k	CRCW0603274KFKEA	Vishay-Dale	RES, 274 k, 1%, 0.1 W, 0603	0603
R88	1	31.6k	CRCW060331K6FKEA	Vishay-Dale	RES, 31.6 k, 1%, 0.1 W, 0603	0603
R91	1	27.4k	CRCW060327K4FKEA	Vishay-Dale	RES, 27.4 k, 1%, 0.1 W, 0603	0603
R96, R97	2	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
T1, T2	2	340uH	750313638	Würth Elektronik	Transformer, 340 uH, TH	8x9.14mm
T3	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
TP1, TP2, TP7, TP8, TP11, TP12, TP19, TP24, TP25, TP27, TP28, TP29, TP30, TP33, TP36, TP38, TP39, TP41, TP51, TP53, TP54, TP55, TP56, TP59, TP60, TP61, TP62	27		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP3, TP4, TP5, TP6, TP23, TP26, TP35, TP37, TP40, TP43, TP52, TP57, TP58	13		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP9, TP10, TP31, TP32, TP34, TP42, TP44, TP49, TP50	9		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP13, TP14, TP15, TP16, TP17, TP18, TP20, TP21, TP22, TP45, TP46, TP47, TP48	13	STD	STD	STD	Test Point, 0.025"	
U1, U26	2		SN6505BDBVR	Texas Instruments	LOW-NOISE 1A TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0006A	DBV0006A
U2	1		SN6501DBVR	Texas Instruments	Transformer Driver for Isolated Power Supplies, DBV0005A	DBV0005A
U3	1		TPS70933DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
U4	1		TPS76050DBVR	Texas Instruments	Single Output LDO, 50 mA, Fixed 5 V Output, 5.2 to 16 V Input, with Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U5	1		TPS61220DCKR	Texas Instruments	Low Input Voltage, 0.7V Boost Converter with 5.5uA Quiescent Current, DCK0006A (SOT-SC70-6)	DCK0006A
U6	1		ISOW7841DWER	Texas Instruments	ISOW7841DWE, DW0016B (SOIC-16)	DW0016B
U7	1		TPS76350DBVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 5 V Output, 2.7 to 10 V Input, with Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U8	1		TPS22944DCKR	Texas Instruments	LOW-INPUT-VOLTAGE CURRENT-LIMITED LOAD SWITCHES WITH SHUT OFF AND AUTO-RESTART FEATURE, DCK0005A (SOT-5)	DCK0005A
U9	1		TLV3012AIDCKR	Texas Instruments	Nanopower, 1.8V, Comparator with Voltage Reference, DCK0006A	DCK0006A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U10	1		TLV74233PDQNR	Texas Instruments	200-mA, Small Size, Low-Dropout Linear Voltage Regulator, DQN0004A (X2SON-4)	DQN0004A
U11, U16	2		UCC12050DVER	Texas Instruments	500 mW, High-Efficiency, Low-Emissions, 5 kVRMS Isolated DC-DC Converter, DVE0016A (SO-MOD-16)	DVE0016A
U12, U15	2		TLV70450DBVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 5 V Output, 2.5 to 24 V Input, with Ultra Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U13	1		TPS22960DCNR	Texas Instruments	5.5V, 0.5A, 435mΩ, 2-Channel Load Switch with Quick Output Discharge, DCN0008A (SOT-23-8)	DCN0008A
U14	1		TLV71333PDBVR	Texas Instruments	150-mA, Low-Dropout Regulator with Foldback Current Limit for Portable Devices, DBV0005A (SOT-23-5)	DBV0005A
U17	1		SN74LVC1G14DCKR	Texas Instruments	Single Schmitt-Trigger Inverter, DCK0005A (SOT-SC70-5)	DCK0005A
U18	1		TPS62821DLCR	Texas Instruments	1A Step-Down Converter With 1% Accuracy, DLC0008A (VSON-HR-8)	DLC0008A
U19	1		DCR010505P	Texas Instruments	Miniature, 1 W Isolated Regulated DC-DC Converter, -40 to 85 degC, 10-pin DIP (NVE10), Pb-Free (RoHS)	NVE0010A
U20	1		LP2985AIM5-3.3/NOPB	Texas Instruments	Micropower 150 mA Low-Noise Ultra Low-Dropout Regulator, 5-pin SOT-23, Pb-Free	MF05A
U21	1		TPS3897ADRYR	Texas Instruments	Single Channel, Ultra Small, Adjustable Supervisory Circuit with Active-High, Open-Drain Output, 1 Supply Monitored, -40 to 125 degC, 6-pin SON (DRY), Green (RoHS & no Sb/Br)	DRY0006A
U22, U24	2			Texas Instruments	Single Schmitt-Trigger Buffer, DCK0005A, LARGE T&R	DCK0005A
U23	1		TPS3895ADRYR	Texas Instruments	Single Channel, Ultra Small, Adjustable Supervisory Circuit with Active-High, Push-Pull Output, 1 Supply Monitored, -40 to 125 degC, 6-pin SON (DRY), Green (RoHS & no Sb/Br)	DRY0006A
U25	1		TPS7A3901DSC	Texas Instruments	Wide-VIN (±33 V), 150-mA, Split-Rail Output, Positive and Negative LDO Voltage Regulator with Startup Tracking, DSC0010J	DSC0010J
U27	1		DCP010505BP	Texas Instruments	Miniature, 1 W Isolated Unregulated DC-DC Converter, -40 to 100 degC, 7-pin DIP (NVA7), Pb-Free (RoHS)	NVA0007A
U28	1		TPS78233DDCR	Texas Instruments	Single Output LDO, 150 mA, Fixed 3.3 V Output, 2.2 to 5.5 V Input, with 0.5 uA Quiescent Current, 5-pin SOT (DDC), -40 to 125 degC, Green (RoHS & no Sb/Br)	DDC0005A
R8, R22, R72, R77, R99, R100	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R29, R42, R52	0	47k	RC0603JR-0747KL	Yageo America	RES, 47 k, 5%, 0.1 W, 0603	0603
R57	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R62, R64	0	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603