

TIDA-01549 REV E2 Bill of Materials

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC81	1		Printed Circuit Board		TIDA-01549	Any		
C1, C5, C9, C10, C33, C35, C66, C67	8	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	C0402C104K4RACAUTO	Kemet		
C2, C3, C4, C6, C7, C12, C18, C19, C20, C21, C22, C34	12	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R71C105KA64D	MuRata		
C8, C13, C16, C64	4	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C103KA01D	MuRata		
C11	1	220pF	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603	GRM188R71H221KA01D	MuRata		
C15	1	0.1uF	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	CGA3E2X7R1E104K080AA	TDK		
C17	1	390pF	CAP, CERM, 390 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C1H391JA01D	MuRata		
C23	1	300pF	CAP, CERM, 300 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C1H301JA01D	MuRata		
C24	1	0.015uF	CAP, CERM, 0.015 uF, 25 V, +/- 5%, C0G/NP0, 0603	0603	C0603C153J3GACTU	Kemet		
C25	1	2200pF	CAP, CERM, 2200 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C1H222JA01D	MuRata		
C26, C27, C28, C29, C30, C31, C32	7	10uF	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	0603	GRM188Z71A106MA73D	MuRata		
C36, C37, C38, C43	4	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X8R, AEC-Q200 Grade 0, 0805	0805	CGA4J2X8R1H104M125AA	TDK		
C39, C42	2	0.01uF	CAP, CERM, 0.01 uF, 50 V, +/- 5%, C0G/NP0, 0603	0603	C1608NP01H103J080AA	TDK		
C40	1	1uF	CAP, CERM, 1 uF, 50 V, +/- 10%, X8R, AEC-Q200 Grade 0, 1206	1206	CGA5L3X8R1H105K160AB	TDK		
C41	1	4.7uF	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X5R, 0603	0603	C0603C475K8PACTU	Kemet		
C44, C47, C51, C54, C55	5	0.1uF	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603	0603YC104JAT2A	AVX	-	-
C45, C46, C52, C53	4	10uF	CAP, CERM, 10uF, 10V, +/-10%, X5R, 0805	0805	C0805C106K8PACTU	Kemet	-	-
C48, C56, C57, C58, C65, C68, C69	7	10uF	CAP, CERM, 10 uF, 25 V, +/- 10%, X5R, 0805	0805	GRM219R61E106KA12D	MuRata		
C49	1	22uF	CAP, CERM, 22 uF, 16 V, +/- 10%, X5R, 0805	0805	C2012X5R1C226K125AC	TDK		
C50	1	3300pF	CAP, CERM, 3300 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603	GRM1885C1H332JA01D	MuRata		
C59, C62	2	0.1uF	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603	GRM188R72A104KA35J	MuRata		
C60	1	2.2uF	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603	GRM188Z71C225KE43	MuRata		
C61	1	1uF	CAP, CERM, 1 uF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	CGA3E1X7R1V105K080AC	TDK		
CE_TP1, CE_TP2, MUXOUT_TP1, MUXOUT_TP2, RAMPDIR_TP1, SCK_TP1, SDI_TP1, SYNC_TP1, SYSREFREQ_TP1, Vtune_TP1	10	White	Test Point, Compact, White, TH	White Compact Testpoint	5007	Keystone		
D1	1	Green	LED, Green, SMD	LED, GREEN, 0603	SML-LX0603GW-TR	Lumex		
D2, D5	2	6.5V	Diode, TVS, Bi, 6.5 V, 400 W, AEC-Q101, SMA	SMA	SM4T7V6CAY	STMicroelectronics		
D3, D4	2	70V	Diode, Switching, 70 V, 0.215 A, SOT-23	SOT-23	BAV199-TP	Micro Commercial Component		
D6	1	70V	Diode, Schottky, 70 V, 0.07 A, SOD-123F	SOD-123F	BAS70H.115	NXP Semiconductor		
D7, D8	2	20V	Diode, TVS, Bi, 20 V, 42.8 Vc, AEC-Q101, SMA	SMA	SM4T23AY/CAY	STMicroelectronics		
D9	1	Green	LED, Green, SMD	1.7x0.65x0.8mm	LG L29K-G2J1-24-Z	OSRAM		
FID4, FID5, FID6	3		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
H1, H2, H3, H4	4		HEX STANDOFF SPACER, 9.53 mm	7.9x9.5 mm	TCBS-6-01	Richco Plastics		
J1	1		Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH	39357-0002	Molex		
J2	1		Header (shrouded), 100mil, 5x2, Gold plated, SMD	SMT Header	52601-S10-8LF	FCI		
JL, JR	2		Connector, Receptacle, 100mil, 10x2, Gold plated, TH	10x2 Receptacle	SSW-110-23-F-D	Samtec		
L2	1	2.2uH	Inductor, Shielded, Composite, 2.2 uH, 3.7 A, 0.02 ohm, SMD	4x2x4mm	XFL4020-222MEB	Coilcraft		
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H 10,000 per roll	PCB Label 0.650 x 0.200 inch	THT-14-423-10	Brady		
Q1	1	65 V	Transistor, PNP, 65 V, 0.01 A, SOT-23	SOT-23	BC856A-7-F	Diodes Inc.		
R1, R6, R11, R13, R14, R16, R17, R18, R29, R31, R36, R38, R58, R62	14	0	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		

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R2, R3, R4, R5, R8, R59, R60, R61	8	47	RES, 47, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040247R0JNED	Vishay-Dale		
R7	1	98.8	RES, 98.8, 0.5%, 0.1 W, 0603	0603	RT0603DRE0798R8L	Yageo America		
R10, R67	2	50	RES, 50, 0.1%, 0.05 W, 0402	0402	FC0402E50R0BST1	Vishay-Dale		
R15, R22, R57	3	0	RES, 0, 5%, 0.125 W, 0805	0805	CRCW08050000Z0EA	Vishay-Dale		
R19, R20	2	0	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	RMCF0603ZT0R00	Stackpole Electronics Inc		
R21	1	330	RES, 330, 1%, 0.1 W, 0603	0603	RC0603FR-07330RL	Yageo America		
R23, R54	2	100k	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GEJ104X	Panasonic		
R24, R25, R26, R27, R28, R30, R33, R35, R39, R40, R41, R42, R43, R44, R45, R46	16	12k	RES, 12 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040212K0JNED	Vishay-Dale		
R32	1	10	RES, 10, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210R0JNED	Vishay-Dale		
R34	1	100	RES, 100, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402100RJNED	Vishay-Dale		
R37	1	330	RES, 330, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402330RJNED	Vishay-Dale		
R47, R52	2	2.00Meg	RES, 2.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-U02F2004X	Panasonic		
R48, R49, R50, R51	4	499	RES, 499, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	ERA-2AEB4990X	Panasonic		
R53	1	7.50k	RES, 7.50 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	ERA-2AEB752X	Panasonic		
R55	1	562k	RES, 562 k, 1%, 0.1 W, 0603	0603	CRCW0603562KFKEA	Vishay-Dale		
R56	1	180k	RES, 180 k, 0.1%, 0.1 W, 0603	0603	RT0603BRD07180KL	Yageo America		
R63	1	4.7k	RES, 4.7 k, 5%, 0.1 W, 0603	0603	CRCW06034K70JNEA	Vishay-Dale		
R64	1	100k	RES, 100 k, 1%, 0.1 W, 0603	0603	CRCW0603100KFKEA	Vishay-Dale		
RFoutAP1, Rx_PORT2	2		JACK, SMA, 50 Ohm, Gold, Edge Mount	JACK, SMA, 50 Ohm, Gold, Edge Mount	142-0771-831	Cinch Connectivity		
TP1	1		Test Point, Compact, Black, TH	Black Compact Testpoint	5006	Keystone		
TP2, TP3, TP4, TP5, TP6	5		Test Point, Compact, Red, TH	Red Compact Testpoint	5005	Keystone		
U1, U5	2		8 GHz Logarithmic RMS Power Detector with 45 dB dynamic range, DSBGA-6, YFQ0006ADAD (DSBGA-6)	YFQ0006ADAD	LMH2110TMX/NOPB	Texas Instruments	LMH2110TM/NOPB	Texas Instruments
U2	1		Automotive 12 bit, 1 MSPS, 4 Channel, Single-Ended, SAR ADC, DBT0030A (TSSOP-30)	DBT0030A	ADS7950QDBTRQ1	Texas Instruments		Texas Instruments
U3	1		Multilayer Directional Coupler For 2400-2500MHz / 4900-5850MHz, SMD-4	1x0.5mm	HHM2942A2	TDK		
U4	1		SOT-23 Precision Micropower Series Voltage Reference, DBV0005A (SOT-23-5)	DBV0005A	LM4128AQ1MFX1.8/NOPB	Texas Instruments	LM4128AQ1MF1.8/NOPB	Texas Instruments
U6	1		Precision, Rail-to-Rail Input/Output, Low Offset Voltage, Low Input Bias Current Op Amp with E-trim, 4.5 to 36 V, 40 to 125 degC, 8-Pin VSSOP (DGK), Green (RoHS & no Sb/Br), Tape and Reel	DGK0008A	OPA192IDGKR			
U7	1		6.4GHz Low-Power Wideband RF Synthesizer, RHA0040H (VQFN-40)	RHA0040H	LMX2572RHAT	Texas Instruments	LMX2572RHAR	Texas Instruments
U9	1		TPS62150A-Q1 3 to 17-V 1-A AUTOMOTIVE Step-Down Converter in 3 x 3 QFN Package, RGT0016C (VQFN-16)	RGT0016C	TPS62150AQRGTRQ1	Texas Instruments	TPS62150AQRGTTQ1	Texas Instruments
U10	1		150-mA, 30-V, Ultra-Low IQ, Wide Input LDO with Reverse Current Protection for Automotive, DRV0006A (WSON-6)	DRV0006A	TPS70950QDRVRQ1	Texas Instruments		Texas Instruments
U11	1		Automotive 500-mA Low-Noise, Low-IQ LDO, DRV0006A (WSON-6)	DRV0006A	LP5912Q3.3DRVRQ1	Texas Instruments	LP5912Q3.3DRVTQ1	Texas Instruments
U12	1		0.5°C Accurate 2-Pin Digital Output Temperature Sensor with Pulse Count Interface, LPG0002A (TO-92-2)	LPG0002A	LMT01QLPGM1	Texas Instruments	LMT01QLPGQ1	Texas Instruments
Y1	1		Crystal Oscillator, 100 MHz, LVDS, 3.3V, SMD	5x7mm	VC-708-EDE-FNXN-100M000000	Vectron		
C14, C63	0	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C103KA01D	MuRata		
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
L1, L3	0	18nH	Inductor, Multilayer, Air Core, 18 nH, 0.3 A, 0.36 ohm, SMD	0402 polarized	LQG15HS18NJ02D	MuRata		
R9, R12, R65, R66	0	50	RES, 50, 0.1%, 0.05 W, 0402	0402	FC0402E50R0BST1	Vishay-Dale		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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