Variant: 001
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TID #: TIDA-010281

N/A REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		N/A	Any	Printed Circuit Board	
2	C1, C4, C55, C59, C62, C65, C70, C78, C82	9	10uF	CL05A106MP5NUNC	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	402
3	C5, C13, C17	3	2.2uF	C1005X7S1A225K050BC	TDK	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, 0402	402
4	C6, C7, C8, C10, C18, C19, C21, C22, C25	9	0.1uF	C0402C104K8RACTU	Kemet	CAP, CERM, 0.1 uF, 10 V,+/- 10%, X7R, 0402	402
5	C9, C16, C26	3	0.01uF	GCM155R71E103KA37D	MuRata	CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0402	402
6	C11, C12, C20	3	1uF	GRT155C81A105KE01D	TDK	CAP, CERM, 1 uF, 10 V, +/- 10%, X6S, 0402	402
7	C14, C71	2	4.7pF	GRM0335C1H4R7BA01D	MuRata	CAP, CERM, 4.7 pF, 50 V,+/- 3%, C0G/NP0, 0201	201
8	C15	1	15pF	04025A150FAT2A	AVX	CAP, CERM, 15 pF, 50 V,+/- 1%, C0G/NP0, 0402	402
9	C23, C24	2	8pF	CC0402DRNP09BN8R0	Yageo	CAP, CERM, 8 pF, 50 V,+/- 6.25%, C0G/NP0, 0402	402
10	C27, C54, C77, C86, C93, C99, C104	7	22µF	GRM187R60J226ME15D	Murata	22µF ±20% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)	603
11	C28, C29, C35, C105, C108	5	4.7µF	8.85012E+11	Wurth Electronics	4.7 µF ±20% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)	603
12	C36	1	0.22uF	GRM155R60J224KE01D	MuRata	CAP, CERM, 0.22 uF, 6.3 V, +/- 10%, X5R, 0402	402
13	C37	1	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	402
14	C40, C41, C42, C106	4	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	805
15	C43, C137	2		NFM18HC105C1C3D	Murata	3 Terminals Low ESL Chip Multilayer Ceramic Capacitors for Automotive	603
16	C48, C49	2	2.2uF	GCM188R70J225KE22D	MuRata	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
17	C56, C57, C58, C60, C61, C63, C64, C66, C67, C68, C75, C76, C80, C81, C84, C85, C87, C88, C94, C95, C96, C97, C98	23	0.22uF	LMK063BJ224MH-F	Taiyo Yuden	CAP, CERM, 0.22 uF, 10 V, +/- 20%, X5R, 0201	201
18	C69	1	0.047uF	GRM033R61C473KE84D	MuRata	CAP, CERM, 0.047 uF, 16 V, +/- 10%, X5R, 0201	201
19	C72, C91, C92, C101, C120, C130	6		GRM033R6YA104KE14D	Murata Electronics North Ame	Cap Ceramic 0.1uF 35V X5R 10% Pad SMD 0201 85C T/R	0201 (0603 Metric)
20	C74, C79, C83, C102, C103	5	2.2uF	CL03A225MQ3CRNC	Samsung Electro-Mechanics	CAP, CERM, 2.2 uF, 6.3 V, +/- 20%, X5R, 0201	201
21	C89, C90	2	1uF	CGB2A1X6S0J105K033BC	TDK	CAP, CERM, 1 µF, 6.3 V,+/- 10%, X6S, 0402	402
22	C100	1		CL03A105MQ3NRNH	Samsung Electro-Mechanics	1µF ±20% 16V Ceramic Capacitor X5R 0201	201
23	C116	1	1µF	CGA3E1X7R1C105M080AC	TDK	Cap Ceramic 1uF 16V X7R 20% Pad SMD 0603 +125°C Automotive T/R	603
24	C117	1	0.1uF	C1005X7R1E104M050BB	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 20%, X7R, 0402	402
25	C118, C119, C127, C128	4	2.2µF	GRM21BD72A225ME01K	Murata	Chip Multilayer Ceramic Capacitor for General Purpose 2.2uF ±20% 100V X7T SMD 0805	805
26	C122, C123	2	0.1uF	HMK107B7104KAHT	Taiyo Yuden	CAP, CERM, 0.1 µF, 100 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
27	C124, C125	2	4.7uF	CGA6M3X7S2A475K200AB	TDK	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
28	C129	1	33µF	A767KS336M1KLAE045	KEMET	33 µF 80 V Aluminum - Polymer Capacitors Radial, Can - SMD 45mOhm 2000 Hrs @ 105°C	RADIAL
29	C131, C135	2	22uF	CGA6P1X7R1C226M250AC	TDK	CAP, CERM, 22 uF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210
30	C132	1	100nF	GRM155R71E104KE14J	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, 0402, 0.10uF, X7R, 15%, 10%, 25V	402
31	C133, C134	2	47µF	GRM32EC81C476KE15K	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, 1210, 47uF, X6S, 22%, 10%, 16V	1210
32	C136	1	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	603
33	D1	1	30V	NSR20F30NXT5G	ON Semiconductor	Diode, Schottky, 30 V, 2 A, 2-XFDFN	2-XFDFN
34	D2	1	Yellow	TLMY1000-GS08	Vishay-Semiconductor	LED, Yellow, SMD	1.6x0.8mm
35	FL2, L12	2		BLM15PD300SZ1D	MuRata	Inductor, Ferrite Bead, Ferrite, 2.2 A, 0.035 ohm, AEC-Q200 Grade 1, SMD	402
36	H1	1		MCH054	Any	ACP EVM Heatsink	
37	H2	1		GPVOUS-0.125-AC-0816	Bergquist	Thermal Pad Pink 406.40mm x 203.20mm Rectangular Adhesive - One Side	
38	H3	1		MCH066	Any	xWR6843AOPEVM Mounting stand	
39	J1	1		105017-0001	Molex	Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	Micro USB receptacle
40	J9	1		U.FL-R-SMT-1(01)	Hirose Electric Co. Ltd.	Receptacle, Ultra Miniature Coaxial, Male Pin, 50 ohm, SMT	Ultra small CO-AX SMD
41	L1	1	1.5uH	XGL4030-152MEC	Coilcraft	Shielded Power Inductors 1.5 µH 10.2A 10.5mOhm Max Nonstandard	SMT2_4MM0_4MM0
42	L6	1	1uH	7443836601O	Wurth Electronics	1 µH Shielded - Inductor 7.8 A 13.1mOhm Max Nonstandard	SMT_IND_5MM4_5M M4
43	L7, L9, L10	3	470nH	TFM201610ALMAR47MTAA	TDK	Inductor, Shielded, Metal Composite, 470 nH, 3.9 A, 0.039 ohm, AEC-Q200 Grade 0, SMD	806
44	L8	1			Wurth Elektronik	WE-MAPI SMT Power Inductor, size 4030, 4.7uH, 3.9A, 44mOhm	
45	L11	1	1.5uH	TFM201610ALMA1R5MTAA	TDK	Inductor, Shielded, Metal Composite, 1.5 µH, 2.3 A, 0.11 ohm, AEC-Q200 Grade 0, SMD	806
46	LD1, LD2, LD3, LD5	4	Green	APHHS1005GCGCK	Kingbright	LED, Green, SMD	402
47	Q1	1		BSS123-7-F	Diodes Incorporated	MOSFET N-CH 100V 170MA SOT23-3	SOT23
48	Q2	1	100V	BSS123	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23
49	R1	1	0	MCT06030Z0000ZP500	Vishay/Beyschlag	RES, 0, 5%, 0.125 W, 0603	603
50	R2, R118, R129	3		RC0201JR-070RL	Yageo	RES SMD 0 OHM JUMPER 1/20W 0201	0201 (0603 Metric)
51	R3, R21, R22, R23, R43, R44, R45, R59, R65, R83, R84, R85, R124, R125, R177, R178	16		RR0306P-103-D	Susumu	10 kOhms ±0.5% 0.05W, 1/20W Chip Resistor 0201 (0603 Metric) Thin Film	201
52	R4, R5, R9, R119	4	100k	CRCW0201100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.05 W, 0201	201
53	R6, R46, R47, R48, R49, R66, R67, R69, R70	9	33.2	CRCW020133R2FNED	Vishay-Dale	RES, 33.2, 1%, 0.05 W, 0201	201
54	R13, R42, R111	3	220	RC0201JR-07220RL	Yageo America	RES, 220, 5%, 0.05 W, 0201	201
55	R16, R174, R176	3	7.87k	RC0201FR-077K87L	Yageo America	RES, 7.87 k, 1%, 0.05 W, 0201	201
56	R17, R29	2	330k	CRCW0402330KFKED	Vishay-Dale	RES, 330 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
57	R18, R51, R57, R63, R91, R92, R115, R121, R126, R127, R128, R134, R136	13	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
58	R20	1	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
59	R24, R112, R122	3	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
60	R27	1	30.0k	CRCW040230K0FKED	Vishay-Dale	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
61	R39	1	100	ERJ-2GEJ101X	Panasonic	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
62	R64	1	4.99k	RC0201FR-074K99L	Yageo America	RES, 4.99 k, 1%, 0.05 W, 0201	201
63	R68	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
64	R71	1	0	CRCW0201000Z0ED	Vishay-Dale	RES, 0, 5%, 0.05 W, 0201	201
65	R72, R73, R74, R76, R89, R95	6	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
66	R75	1	1.0k	RC0201JR-071KL	Yageo America	RES, 1.0 k, 5%, 0.05 W, 0201	201
67	R87, R123	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
68	R90	1	4.87k	CRCW04024K87FKED	Vishay-Dale	RES, 4.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
69	R104, R106	2	510	ERJ-2GEJ511X	Panasonic	RES, 510, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
70	R105, R107, R108	3	510	RC0201JR-07510RL	Yageo America	RES, 510, 5%, 0.05 W, 0201	201
71	R110	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
72	R113	1	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	603
73	R114	1	49.9k	RC0603FR-0749K9L	Yageo	RES, 49.9 k, 1%, 0.1 W, 0603	603
74	R139	1	33.2	CRCW040233R2FKED	Vishay-Dale	RES, 33.2, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402
75	R141	1	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
76	R158, R170, R172	3	82.5k	RC0201FR-0782K5L	Yageo America	RES, 82.5 k, 1%, 0.05 W, 0201	201
77	R159, R171	2	750	RC0201JR-07750RL	Yageo America	RES, 750, 5%, 0.05 W, 0201	201
78	S1	1		218-4LPST	CTS Electrocomponents	Switch, Slide, SPST 4 poles, SMT	SW, SMT Half Pitch 4SPST, 5.8x2.7x6.25 mm
79	S3	1		CHS-01TA	Nidec Copal Electronics	SWITCH SLIDE DIP SPST 100MA 6V	SMT_SW_5MM4_2M M5
80	SW2, SW3	2		B3U-1000P	Omron Electronic Components	SWITCH TACTILE SPST-NO 0.05A 12V	3x1.6x2.5mm
81	TP20	1		4953	Keystone Electronics	PC Test Point, Loop Brass, Tin Plating 0.047" (1.19mm) Hole Diameter Mounting Type	HDR1
82	U2	1		WR6843ARBGALP	Texas Instruments	WR6843ARBGALP, ALP0180A (BGA-180)	ALP0180A
83	U4	1		TPS79601DRBR	Texas Instruments	Single Output High PSRR LDO, 1 A, Adjustable 1.2 to 5.5 V Output, 2.7 to 5.5 V Input, 8-pin SON (DRB), -40 to 125 degC, Green (RoHS & no Sb/Br)	DRB0008B
84	U5	1		TM4C1294NCPDTT3	Texas Instruments	Tiva C Series Microcontroller, 1024 KB Flash, 256 KB SRAM, 12 Bit, 20 Channels, -40 to 105 degC, 128-Pin TQFP (PDT), Green (RoHS & no Sb/Br), Tray	PDT0128A
85	U6	1		LM4040C25QDBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 0.5% accuracy, 2.5 V, 15 ppm / degC, 15 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
86	U8	1		LM66635SCRZTRQ1	Texas Instruments	3.5V to 65V Synchronous Step-Down Voltage Regulator	W/QFN-FCRLF20
87	U9	1		MX25R1635FZUIH0	Macronix International Co., LT	ULTRA LOW POWER, 16M-BIT [x 1/x 2/x 4] CMOS MXSMIO (SERIAL MULTI I/O) FLASH MEMORY, SON-8	SON-8
88	U10	1		LP87451A1RXVR	Texas Instruments	Three Buck Converters and 5-V Boost for AWR and IWR Radar Sensors	VQFN-HR28
89	U16	1		SN74LVC1G11DSFR	Texas Instruments	AND Gate IC 1 Channel 6-SON (1x1)	X2SON-6
90	Y1	1		CX2016DB40000D0FLJCC	Kyocera International Inc. Ele	CRYSTAL 40.0000MHZ 8PF SMD	SMT 2MM0 1MM6
91	Y2	1		ECS-160-8-33Q-RES-TR	ECS	16 MHz ±15ppm Crystal 8pF 80 Ohms 4-SMD, No Lead	SMT4 3MM2 2MM5
92	C38, C39	0		250R05L120JV4T	Johanson Technology Inc.	CAP, CER 12PF 25V C0G/NP0 0201	201
93	C73	0	10uF	CL05A106MP5NUNC	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	402
94	C107	0	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	805
95	FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
96	R30, R38, R94, R131	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402
97	R77, R78, R80, R81, R82, R93, R96, R98	0		RR0306P-103-D	Susumu	10 kOhms ±0.5% 0.05W, 1/20W Chip Resistor 0201 (0603 Metric) Thin Film	201
98	R97	0	10k	RC0402FR-0710KL	Yageo	10 kOhms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film	402
99	R103, R109	0		RC0201JR-070RL	Yageo	RES SMD 0 OHM JUMPER 1/20W 0201	0201 (0603 Metric)
100	R120	0	0	HCJ0603ZT0R00	Stackpole Electronics	RES 0 OHM JUMPER 1/4W 0603	603
101	Y4	0		ABS05W-32.768KHZ-D-2-T	Abracon LLC	CRYSTAL 32.768KHZ 4PF SMD	XTAL_SMT_1MM6_1 MM0

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