

xWR2944EVM

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC6	1		Printed Circuit Board		PROC113	Any		
C1, C10, C48, C53, C56, C59, C60, C65, C87, C90, C145, C159, C183, C186, C187, C190, C192	17	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603	GCM188R71C105KA64D	MuRata		
C2, C80, C128	3	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	CGA2B3X7R1H104K050BB	TDK		
C3, C123, C137, C146, C149	5	2.2uF	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603	GCM188R70J225KE22D	MuRata		
C5, C21, C22, C92, C96, C107, C111, C113, C115, C117, C138, C139, C140, C141, C142, C163, C164, C165, C168, C170, C172, C174, C175, C176, C177	25	0.22uF	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	GCM155R71C224KE02D	MuRata		
C6, C8, C124, C144, C153	5	4.7uF	Cap Ceramic Multilayer 4.7uF 6.3V DC 10% SMD Paper T/R	603	GCM188C70J475KE02J	Murata		
C9, C58, C179, C181	4		3 Terminals Low ESL Chip Multilayer Ceramic Capacitors for Automotive	603	NFM18HC105C1C3D	Murata		
C11, C12, C16, C20, C55, C105, C131, C135, C136, C150	10	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	402	GCM155R71C104KA55D	MuRata		
C13, C24	2	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	GCM155R71H472KA37D	MuRata		
C14, C17, C19, C57, C81, C158, C160, C184, C185, C188, C189, C191, C193	13	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	GCM155R71A104KA55D	MuRata		

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C15, C31, C110, C112, C114, C116, C119, C196	8	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	805	GCM21BR71A106KE22 L	MuRata		
C18, C42, C43, C47, C49, C64, C67, C69, C71, C73, C75, C76, C77, C78, C82, C86, C88, C89, C91, C97, C98, C133	22	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, 0402	402	C0402C104K8RACTU	Kemet		
C23, C25, C26, C29	4	22uF	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206	GCM31CR71A226KE02 L	MuRata		
C27, C28	2		C0603 0.10 uF X7R 30ppm/C 10.00% 16 V	603	C0603C104K4RACAUT O	KEMET		
C30, C33, C95, C121	4	27pF	CAP, CERM, 27 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	402	GCM1555C1H270JA16 D	MuRata		
C32, C40, C51	3	0.47uF	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603	CGA3E3X7R1H474K080 AE	TDK		
C34	1	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	GCM155R71H102KA37 D	MuRata		
C35, C44, C52	3	0.01uF	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	CGA2B3X7R1H103K050 BB	TDK		
C38	1	2.2uF	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805	CGA4J3X7R1H225K125 AB	TDK		
C39, C45	2	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	805	CL21B106KOQNNNE	Samsung Electro-Mechanics		
C41, C61, C62	3	1uF	CAP, CERM, 1 uF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	402	GCM155C71A105KE38 D	MuRata		
C50, C66, C109	3	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	402	C0402C103K4RACTU	Kemet		
C63, C70, C83, C84	4		Cap Ceramic 8pF 50V C0G 0.5pF SMD 0402 125C Paper T/R	402	GCM1555C1H8R0DA16 D	Murata Electronics North America		
C68, C72, C79	3	4.7uF	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X7S, 0603	603	C1608X7S1A475K080A C	TDK		
C74, C85, C94	3	2.2uF	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, 0402	402	C1005X7S1A225K050B C	TDK		
C93	1	15pF	CAP, CERM, 15 pF, 50 V, +/- 1%, C0G/NP0, 0402	402	04025A150FAT2A	AVX		
C99	1	68uF	CAP, Polymer Hybrid, 68 uF, 35 V, +/- 20%, 35 ohm, 6.3x7.7 SMD	6.3x7.7	EEHZC1V680XP	Panasonic		
C100, C101	2	4.7uF	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206	C3216X7R1H475K160A C	TDK		
C102, C103	2		1uF ±10% 6.3V Ceramic Capacitor X7R 0402 (1005 Metric)	402	GRT155R70J105KE01D	Murata		
C104, C126	2	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X8R, AEC-Q200 Grade 0, 0603	603	CGA3E3X8R1H104K080 AB	TDK		
C106, C108	2	4.7pF	CAP, CERM, 4.7 pF, 50 V, +/- 2%, C0G/NP0, 0402	402	GJM1555C1H4R7BB01 D	MuRata		
C118, C173	2	4.7uF	Cap Ceramic 4.7uF 50V X7R 10% Pad SMD 0805 +125°C Automotive T/R	805	CGA4J1X7R1H475K125 AC	TDK Corporation		
C125, C129, C130, C132, C134	5	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X7T, AEC-Q200 Grade 1, 0805	805	CGA4J1X7T0J226M	TDK	CGA4J1X7T0J226M125AC	
C157, C161	2	0.1uF	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805	CGA4J2X7R2A104K125 AA	TDK		
C167	1	4700pF	CAP, CERM, 4700 pF, 1000 V, +/- 10%, X7R, 1206	1206	GRM31BR73A472KW01 L	MuRata		
C180	1	0.047uF	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	CGA2B3X7R1H473K050 BB	TDK		
C195	1	0.22uF	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603	CGA3E3X7R1H224K080 AB	TDK		

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C197	1	10uF	CAP, CERM, 10 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206	CGA5L1X7R1H106K160AE	TDK		
D1	1	Yellow	LED, Yellow, SMD	1.6x0.8mm	TLMY1000-GS08	Vishay-Semiconductor		
D2, D4, D5	3	V	Diode, Schottky, V, 0.01 A, SOD-882	SOD-882	SMS3923-040LF	Skyworks Solutions		
D6, D12, D16	3	Green	LED, Green, SMD	805	SML-LXT0805GW-TR	Lumex		
D9, D13	2	Yellow	LED, Yellow, SMD	1.6x0.8mm	SML-E12Y8WT86	Rohm		
D11	1	30V	Diode, Schottky, 30 V, 5 A, AEC-Q101, SMAF	SMAF	FSV530AF	Fairchild Semiconductor		
D15, D17	2		Automotive 1-Channel Ultra-Low-Capacitance IEC ESD Protection Diode, DPY0002A (X1SON-2)	DPY0002A	TPD1E05U06QDPYRQ1	Texas Instruments	TPD1E05U06QDPYTQ1	Texas Instruments
DS2	1	Red	LED, Red, SMD	SMD, 2-Leads, Body 1.3x0.8mm	LS L29K-G1J2-1-Z	OSRAM		
FB1	1		Chip Ferrite Bead, 0603, 1000Ω @ 100MHz, 0.5Ω, 25%, 450mA	603	BLM18AG102SH1D	Murata		
J2, J3	2		3 Position Wire to Board Terminal Block Vertical with Board 0.138" (3.50mm) Through Hole	PTH_TERMINAL_BLOCK	OSTTF030161	On Shore Technology		
J4	1		1 Port Header Assembly, TH	1 Port Header Assembly	9-2304372-9	TE Connectivity		
J7, J19	2		Receptacle, 0.5 mm, 30x2, Gold, TH	Receptacle, 0.5 mm, 30x2, TH	QSH-030-01-L-D-A	Samtec		
J8, J10	2		Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	Micro USB receptacle	105017-0001	Molex		
J9	1		RJ45 Connector with 1000 Base-TX Integrated Magnetic	CONN_RJ45	LPJG16414A4NL	LINK-PP		
J12	1		DC POWER JACK, R/A, TH	DC POWER JACK, R/A, TH	PJ-063AH	CUI Inc.		
J14	1		UMC Straight Jack Receptacle, 50 Ohm, Gold, SMT	UMC Straight Jack Receptacle, SMT	128-0711-201	Cinch Connectivity		
J17, J18, J20, P1	4		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec		
J21, J22, J23	3		Header, 1x1, Gold, SMT	Header, 1x1, SMT	GBC01SFBN-M30	Sullins Connector Solutions		
L1	1	1.5uH	Inductor, Shielded, Metal Composite, 1.5 µH, 2.3 A, 0.11 ohm, AEC-Q200 Grade 0, SMD	806	TFM201610ALMA1R5MTAA	TDK		
L2, L8, L9	3	0.24uH	240nH Shielded Thin Film Inductor 5A 23mOhm Max 0806 (2016 Metric)	0806 (2016 Metric)	TFM201610ALMAR24MTAA	TDK		
L3, L4	2	600 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 0.3 A, 0402	402	BLM15HG601SN1D	MuRata		
L5	1	4.7µH	Power Inductor (SMD), 4.7 µH, 5.1 A, Shielded, 4.5 A, XAL40xx Series, 4mm x 4mm x 3.1mm	SMD2	XAL4030-472MEC	Coilcraft		
L6	1	2.2uH	Inductor, Shielded, Composite, 2.2 uH, 6.1 A, 0.0201 ohm, AEC-Q200 Grade 1, SMD	4x4mm	XEL4030-222MEB	Coilcraft		
L7	1		200µH @ 100kHz 2 Line Common Mode Choke Surface Mount 70mA DCR 5.5Ohm	SMD4	ACT1210L-201-2P-TL00	TDK		
Q1	1	100V	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23	BSS123	Fairchild Semiconductor		None

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R1, R3, R6, R11, R12, R13, R14, R16, R17, R21, R25, R27, R29, R31, R33, R35, R37, R50, R54, R57, R58, R59, R62, R63, R71, R75, R76, R78, R128, R129, R131, R136, R146, R148, R149, R150, R151, R152, R153, R158, R162, R166, R181, R186, R190, R209, R233, R246, R291, R295, R316, R330, R353, R354, R355, R356, R357, R358, R359, R360, R400, R401, R419	63	0	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402	ERJ-2GE0R00X	Panasonic		
R2	1	7.50k	RES, 7.50 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04027K50FKED	Vishay-Dale		
R8, R9, R18, R41, R43, R46, R49, R86, R106, R125, R155, R157, R184, R187, R201, R222, R250, R264, R271, R272, R273, R283, R296, R299, R303, R305, R310, R312, R314, R326, R335, R409, R418	33	10.0k	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040210K0FKED	Vishay-Dale		
R15, R24, R85, R87	4	61.9	RES, 61.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040261R9FKED	Vishay-Dale		

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R26, R32, R36, R47, R56, R65, R66, R268, R348, R352, R362	11	10.2	RES, 10.2, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040210R2FKED	Vishay-Dale		
R28, R48	2	0	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	RMCF0603ZT0R00	Stackpole Electronics Inc		
R30, R60, R64, R346	4	0.001	RES, 0.001, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206	CSNL1206FT1L00	Stackpole Electronics Inc		
R34, R205, R280, R292, R340, R342	6	2.2k	RES, 2.2 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04022K20JNED	Vishay-Dale		
R38	1	47.5k	RES, 47.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040247K5FKED	Vishay-Dale		
R39, R40, R42, R44, R45, R98, R101, R103, R105, R121, R122, R195, R290, R325, R336, R338, R339, R369, R374, R375, R376, R377, R413	23	33.2	Res Thick Film 0201 33.2 Ohm 1% 0.05W(1/20W) ±200ppm/C Pad SMD Automotive T/R	201	ERJ-1GNF33R2C	Panasonic		
R52	1	3.3k	RES, 3.3 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04023K30JNED	Vishay-Dale		
R53	1	4.7k	RES, 4.7 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04024K70JNED	Vishay-Dale		
R55	1	33k	RES, 33 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040233K0JNED	Vishay-Dale		
R68, R69	2	220	RES, 220, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW0402220R.JNED	Vishay-Dale		
R73, R104, R111	3	0	RES 0 OHM JUMPER 1/4W 0603	603	HCJ0603ZT0R00	Stackpole Electronics		

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R81, R84, R88, R90, R91, R94, R95, R107, R109, R115, R165, R188, R196, R215, R218, R219, R223, R317, R318, R319, R321, R322, R323, R328, R329, R334, R344, R351, R361, R363, R364, R365, R366, R370, R390, R391, R399	37	0	RES, 0, 5%, 0.05 W, 0201	201	CRCW02010000Z0ED	Vishay-Dale		
R99, R123, R124, R126, R127, R133, R140, R163, R315, R331, R332	11	1.00k	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04021K00FKED	Vishay-Dale		
R110, R267	2	10	RES, 10, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040210R0JNED	Vishay-Dale		
R116, R265, R270	3	0	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	402	CRCW04020000Z0EDHP	Vishay-Dale		
R134	1	49.9	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040249R9FKED	Vishay-Dale		
R144, R145, R147, R169, R170, R171, R179, R193, R380, R381, R386, R387, R388, R389, R392	15	33.2	RES, 33.2, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040233R2FKED	Vishay-Dale		
R154, R242, R333	3	100	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402	ERJ-2GEJ101X	Panasonic		
R156	1	6.04k	RES, 6.04 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04026K04FKED	Vishay-Dale		
R161, R175	2	0	RES, 0, 5%, 0.125 W, 0603	603	MCT06030Z0000ZP500	Vishay/Beyschlag		
R172	1	10.5k	RES, 10.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040210K5FKED	Vishay-Dale		

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R174, R208	2	30.0k	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040230K0FKED	Vishay-Dale		
R180, R261, R262, R263, R266, R347	6	510	RES, 510, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402	ERJ-2GEJ511X	Panasonic		
R182, R206, R207	3	0	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	805	CRCW08050000Z0EA	Vishay-Dale		
R183, R278, R279	3	100k	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW0402100KFKED	Vishay-Dale		
R194	1	4.87k	RES, 4.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04024K87FKED	Vishay-Dale		
R202	1	49.9k	RES, 49.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040249K9FKED	Vishay-Dale		
R203	1	29.4k	RES, 29.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040229K4FKED	Vishay-Dale		
R211	1	5.76k	RES, 5.76 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04025K76FKED	Vishay-Dale		
R243, R508, R512	3	4.70k	RES, 4.70 k, 1%, 0.05 W, 0201	201	CRCW02014K70FKED	Vishay-Dale		
R248	1	1.00Meg	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	CRCW06031M00FKEA	Vishay-Dale		
R256, R257, R289	3	2.49k	RES, 2.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04022K49FKED	Vishay-Dale		
R275, R281	2	1.00k	RES, 1.00 k, 1%, 0.25 W, 0805	805	ERJ-P06F1001V	Panasonic		
R276, R277	2	2.94k	RES, 2.94 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04022K94FKED	Vishay-Dale		
R282	1	100k	RES, 100 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	805	CRCW0805100KJNEA	Vishay-Dale		
R284, R285	2	330k	RES, 330 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW0402330KFKED	Vishay-Dale		
R293	1	48.7k	RES, 48.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	CRCW060348K7FKEA	Vishay-Dale		
R294	1	45.3k	RES, 45.3 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	CRCW060345K3FKEA	Vishay-Dale		
R298, R304, R308	3	750	RES, 750, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW0402750RFKED	Vishay-Dale		
R300, R306, R311	3	7.87k	RES, 7.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04027K87FKED	Vishay-Dale		
R302, R307, R313	3	82.5k	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040282K5FKED	Vishay-Dale		
R337	1	11.0k	RES, 11.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040211K0FKED	Vishay-Dale		
R414	1	1M	Res Thick Film 0603 1M Ohm 1% 1/10W ±100ppm/°C Molded SMD Paper T/R	603	CRCW06031M00FKEAC	Vishay		
R503	1	100	RES, 100, 1%, 0.05 W, 0201	201	CRCW0201100RFKED	Vishay-Semiconductor		
S1, S2	2		Slide SW, SPDT 0.1A 50VDC	SW, 3.1x2.5x6 mm	CJS-1201TA	Copal Electronics		
SW1, SW2, SW3	3		Switch, SPST-NO, Off-Mom, 0.01 A, 32 VDC, SMD	4.2x2.8mm	KMR243GLFG	C&K Components		
TP7, TP9	2		Test Point, Miniature, Black, TH	Black Miniature Testpoint	5001	Keystone		
U1	1		3.3V Uniform Sector Dual and Quad Serial Flash SPI 64Mbit 2.7-3.6V WSON8	WSON8	GD25B64CWAG	GigaDevice		
U2	1		3.5-V to 36-V, 1.5-A, and 2.5-A Automotive Step-down Voltage Converter	WSON12	LM63635DQDRRRQ1	Texas Instruments		
U3	1		Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A	TCAN1042HGVVDQ1	Texas Instruments	TCAN1042HGVVDRQ1	Texas Instruments
U4	1		TC-10 Compliant 100Base-T1 Automotive Ethernet PHY	VQFN36	DP83TC812R-Q1	Texas Instruments		
U5	1		Low-Power Fault Protected CAN FD Transceiver with INH and WAKE	SOT23-14-THIN	TCAN1043ADYYRQ1	Texas Instruments		
U6	1		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	TM4C1294NCPDTT3	Texas Instruments		
U7	1		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	LM4040C25QDBZR	Texas Instruments		

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U8	1		Three Buck Converters and 5-V Boost for AWR and IWR Radar Sensors	VQFN-HR28	LP877451A1RXVRQ1	Texas Instruments		
U9, U11, U12, U22	4		High-Side Measurement, Bi-Directional Current / Power Monitor with I2C Interface, 2.7 to 5.5 V, -40 to 125 degC, 10-pin SOP (DGS10), Green (RoHS & no Sb/Br)	DGS0010A	INA226AIDGSR	Texas Instruments		
U10, U21	2		4-Channel ESD Protection Array for High-Speed Data Interfaces, DRY0006A (USON-6)	DRY0006A	TPD4E004DRYR	Texas Instruments		
U13, U14	2		4-Channel Ultra-Low-Capacitance IEC ESD Protection Diode, DQA0010A (USON-10)	DQA0010A	TPD4E05U06DQAR	Texas Instruments		Texas Instruments
U15	1		Extended Temperature Gigabit Ethernet PHY with SGMII, RGZ0048B (VQFN-48)	RGZ0048B	DP83867ERGZR	Texas Instruments	DP83867ERGZT	Texas Instruments
U16	1		Single Output High PSRR LDO, 500 mA, Adjustable 1.25 to 6 V Output, 2.7 to 6.5 V Input, with Low IQ, 6-pin SON (DRV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DRV0006A	TPS73501DRVR	Texas Instruments		
U17	1		Capacitor-Free, 300-mA, Low-Dropout Regulator for Automotive, DRV0006A (WSON-6)	DRV0006A	TLV73310PQDRVRQ1	Texas Instruments		Texas Instruments
U18	1		Quad High Speed USB to Multipurpose UART/MPSSE IC	LQFP_10x10mm	FT4232HL	FTDI		
U19	1		1K Microwire Compatible Serial EEPROM, TSSOP-8	TSSOP-8	93LC46B-I/ST	Microchip		
U20	1		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	TPS79601DRBR	Texas Instruments		
U23, U26	2		10-Ohm Quad SPDT Analog Switch, RSV0016A (UQFN-16)	RSV0016A	TS3A5018RSVR	Texas Instruments		Texas Instruments
U24	1		1.4V-Capable +/-0.5degC Temperature Sensor with Alert Function and I2C/SMBus interface in SOT-563, DRL0006A (SOT-OTHER-6)	DRL0006A	TMP112AIDRLR	Texas Instruments	TMP112AIDRLT	Texas Instruments
U27	1		Linear Voltage Regulator IC Positive Fixed Output 300mA SOT-23-5	SOT23-5	TPS78417QDBVRQ1	Texas Instruments		
U28	1		2-Kb, 4-Kb, 8-Kb and 16-Kb I2C CMOS Serial EEPROM, SOIC-8	SOIC-8	CAV24C02WE-GT3	ON Semiconductor		
U29	1		XA2944BGALT	BGA266	XA2944BGALT	Texas Instruments		
U32	1		Automotive Catalog Single Inverter, DCK0005A, LARGE T&R	DCK0005A	SN74LVC1G04QDCKR Q1	Texas Instruments		
U33	1		Automotive 150-mA high-voltage ultra-low-IQ low-dropout (LDO) linear regulator, DRV0006A (WSON-6)	DRV0006A	TPS7B8133QDRVRQ1	Texas Instruments		Texas Instruments
Y1	1		Crystal, 12 MHz, 15 ppm, 8 pF, AEC-Q200 Grade 1, SMD	3.2x0.55x2.5mm	NX3225SA-12.000M-STD-CRS-2	NDK		
Y2	1		Crystal, 16 MHz, 15 ppm, 8 pF, AEC-Q200 Grade 1, SMD	3.2x0.55x2.5mm	NX3225SA-16.000M-STD-CRS-2	NDK		
Y3	1		40MHz ±10ppm Crystal 8pF 50 Ohms 4-SMD, No Lead	4-SMD-2.0x1.6mm	FW4000044Q	Diodes		
Y4	1		Crystal, 25 MHz, 18 pF, SMD	ABM3	ABM3-25.000MHZ-D2Y-T	Abracon Corporation		
Y5	1		Crystal, 25 MHz, 18 pF, SMD	ABM3	ABM3-25.000MHZ-D2W-T	Abracon Corporation		
C4, C152, C194, C198	0	10uF	CAP, CERM, 10 µF, 10 V, +/- 5%, X7R, AEC-Q200 Grade 1, 0805	805	C0805C106J8RACAUTO	Kemet		
C7, C37, C120, C122	0	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	805	GCM21BR71A106KE22L	MuRata		
C36, C46, C54	0	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	402	GCM155R71C104KA55D	MuRata		
C127, C151, C169	0	22uF	CAP, CERM, 22 µF, 6.3 V, +/- 20%, X7T, AEC-Q200 Grade 1, 0805	805	CGA4J1X7T0J226M	TDK	CGA4J1X7T0J226M125AC, [NoValue]	
C147, C171	0	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603	GCM188R71C105KA64D	MuRata		
C148, C178	0	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	GCM155R71A104KA55D	MuRata		
C154, C182	0	0.01uF	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	402	CGA2B3X7R1H103K050BB	TDK		
C155, C166	0	47pF	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G/NP0, 0402	402	GRM1555C1H470FA01D	MuRata		
C156, C162	0	22pF	CAP, CERM, 22 pF, 50 V, +/- 1%, C0G/NP0, 0402	402	GRM1555C1H220FA01D	MuRata		

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
D3	0	28V	Diode, TVS, Bi, 28 V, 45.4 Vc, AEC-Q101, SOD-123	SOD-123	ATV02W280B-HF	Comchip Technology		
D7, D8	0	Red	LED, Red, SMD	SMD, 2-Leads, Body 1.3x0.8mm	LS L29K-G1J2-1-Z	OSRAM		
D10	0	Yellow	LED, Yellow, SMD	Yellow LED	SML-P12YTT86	Rohm		
D14	0	Orange	LED, Orange, SMD	Orange LED	SML-P12DTT86	Rohm		
D18, D19	0		Automotive 1-Channel Ultra-Low-Capacitance IEC ESD Protection Diode, DPY0002A (X1SON-2)	DPY0002A	TPD1E05U06QDPYRQ1	Texas Instruments	TPD1E05U06QDPYTQ1	Texas Instruments
FB2	0		600 Ohms @ 100MHz 1 Power Line Ferrite Bead 0603 (1608 Metric) 1.3A 150mOhm	0603 (1608 Metric)	BLM18K6G01SH1	Murata		
J1, J5	0		U.FL (UMCC) Connector Jack, Male Pin 50Ohm Surface Mount Solder	SMT_JACK_CONN	1909763-1	TE Connectivity		
J13	0		Connector, SMA Jack, Vertical, Gold, SMD	SMA	142-0711-201	Cinch Connectivity		
J16	0		Header, 2.54mm, 3x2, Gold, SMT	Header, 2.54mm, 3x2, SMT	TSM-103-01-L-DV	Samtec		
R4, R5, R20, R22, R23, R51, R61, R67, R70, R113, R117, R160, R164, R167, R176, R185, R214, R241, R269, R297	0	0	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	402	ERJ-2GE0R00X	Panasonic		
R7, R10, R19, R102, R177, R301, R309, R350, R416, R417	0	10.0k	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040210K0FKED	Vishay-Dale		
R72, R80, R82, R83, R114, R135, R138, R168, R189, R191, R192, R197, R198, R216, R220, R224, R226, R229, R320, R324, R327, R341, R343, R345, R349, R371, R379, R422, R423, R424, R425	0	0	RES, 0, 5%, 0.05 W, 0201	201	CRCW02010000Z0ED	Vishay-Dale		

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
R74, R96, R100, R178, R225, R230, R234, R237, R238, R239, R240, R245, R247, R249	0	33.2	Res Thick Film 0201 33.2 Ohm 1% 0.05W(1/20W) ±200ppm/C Pad SMD Automotive T/R	201	ERJ-1GNF33R2C	Panasonic		
R77, R93, R108, R120	0	470	RES, 470, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	402	ERJ-2RKF4700X	Panasonic		
R79, R89, R92, R97, R112, R118, R132, R137, R139, R141, R142, R143, R173, R251, R252, R253, R254, R255, R258, R286, R287, R288	0	2.49k	RES, 2.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04022K49FKED	Vishay-Dale		
R119, R130	0	1.0Meg	RES, 1.0 M, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206	CRCW12061M00JNEA	Vishay-Dale		
R159	0	1.00k	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW04021K00FKED	Vishay-Dale		
R199	0	0	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	402	CRCW04020000Z0EDH P	Vishay-Dale		
R204	0	100k	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW0402100KFKED	Vishay-Dale		
R217, R221, R227, R228, R231, R232, R235, R236	0	10	RES, 10, 5%, 0.05 W, 0201	201	RC0201JR-0710RL	Yageo America		
R244	0	22	RES, 22, 5%, 0.05 W, AEC-Q200 Grade 1, 0201	201	ERJ-1GNJ220C	Panasonic		
R260, R274	0	26.7	RES, 26.7, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	402	CRCW040226R7FKED	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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