

AWR1843BOOST

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC8	1		Printed Circuit Board		PROC051	Any		
C1, C13, C14, C33, C36, C54, C94	7	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R71C105KA64D	MuRata		
C2	1	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	CGA2B3X7R1H104K050BB	TDK		
C3, C5, C7, C10, C12, C39, C47, C48, C51, C53, C56, C57, C84, C90	14	0.22uF	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	GCM155R71C224KE02D	MuRata		
C4, C6, C11, C22	4	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402	GCM155R71C104KA55D	MuRata		
C8	1	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7S, 0201	0201	GRM033C71A104KE14D	MuRata		
C9, C15	2	4.7pF	CAP, CERM, 4.7 pF, 50 V, +/- 2%, C0G/NP0, 0402	0402	GJM1555C1H4R7BB01D	MuRata		
C16, C20, C42, C43, C49, C64, C67, C71, C75, C91, C92, C97	12	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, 0402	0402	C0402C104K8RACTU	Kemet		
C17, C40, C45, C52, C55, C58, C59, C65, C80, C95, C96, C98, C100, C102, C103, C104	16	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805	GCM21BR71A106KE22L	MuRata		
C18	1	0.47uF	CAP, CERM, 0.47 uF, 6.3 V, +/- 10%, X7R, 0402	0402	JMK105B7474KVHF	Taiyo Yuden		
C19, C37, C99, C105	4	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206	CGA5L1X7R0J226M160AC	TDK		
C21, C25	2	10uF	CAP, CERM, 10 uF, 25 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210	CGA6P1X7R1E106M250AC	TDK		
C23, C27	2	0.047uF	CAP, CERM, 0.047 uF, 50 V, +/- 5%, X7R, 0603	0603	06035C473JAT2A	AVX		
C24	1	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	GCM155R71H472KA37D	MuRata		
C26	1	47uF	CAP, TA, 47 uF, 10 V, +/- 10%, SMD	3528-21	T491B476K010AT	Kemet		
C28, C34, C77, C78, C82	5	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402	0402YC104KAT2A	AVX		
C29, C30, C31	3	22uF	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210	GCM32ER71C226KE19L	MuRata		
C32, C79	2	4.7uF	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805	CGA4J1X7R1E475K125AC	TDK		
C35, C46, C81	3	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	CL21B106K0QNNNE	Samsung Electro-Mechanics		
C38, C60, C68	3	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206	GCM31CR70J226KE23L	MuRata		
C41, C61, C62, C76	4	1uF	CAP, CERM, 1 uF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402	GCM155C71A105KE38D	MuRata		
C44	1	47uF	CAP, CERM, 47 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210	GCM32ER70J476KE19L	MuRata		
C50, C66, C69	3	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	C0402C103K4RACTU	Kemet		
C63, C70	2		Cap Ceramic 8pF 50V C0G 0.5pF SMD 0402 125C Paper T/R	0402	GCM1555C1H8R0DA16D	Murata Electronics North Ame		
C72, C73, C101	3	0.01uF	CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0402	0402	GCM155R71E103KA37D	MuRata		
C74, C86	2	2.2uF	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, 0402	0402	C1005X7S1A225K050B5C	TDK		
C85	1	1uF	CAP, CERM, 1 uF, 6.3 V, +/- 20%, X7R, 0402	0402	GRM155R70J105MA12D	MuRata		
C87, C89	2	2.2uF	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R70J225KE22D	MuRata		
C88	1	33pF	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	C0402C330J5GAC	Kemet		
C93	1	22uF	CAP, CERM, 22 uF, 25 V, +/- 20%, X5R, AEC-Q200 Grade 3, 0805	0805	GRT21BR61E226ME13L	MuRata		
D2	1	V	Diode, Schottky, V, 0.01 A, SOD-882	SOD-882	SMS3923-040LF	Skyworks Solutions		
D5	1	Green	LED, Green, SMD	0402	APHHS1005CGCK	Kingbright		
DS1, DS2	2	Red	LED, Red, SMD	SMD, 2-Leads, Body 1.3x0.8mm	LS L29K-G1J2-1-Z	OSRAM		
DS3, DS4	2	Yellow	LED, Yellow, SMD	1.6x0.8mm	SML-E12Y8WT86	Rohm		
F1	1		Fuse, 5 A, 32VAC/VDC, SMD	1206	0440005.WR	Littelfuse		
J1	1		Receptacle, 0.5 mm, 30x2, Gold, TH	Receptacle, 0.5 mm, 30x2, TH	QSH-030-01-L-D-A	Samtec		
J2	1		UMC Straight Jack Receptacle, 50 Ohm, Gold, SMT	UMC Straight Jack Receptacle, SMT	128-0711-201	Cinch Connectivity		
J3	1		Terminal Block, 3.5mm, 3x1, Tin, R/A, TH	Terminal Block, 3.5mm, 3x1, TH	OSTTE030161	On-Shore Technology		
J5, J6	2		Receptacle, 2.54mm, 10x2, Gold with Tin tail, SMT	Receptacle, 2.54mm, 10x2, SMT	SSM-110-S-DV	Samtec		
J8	1		Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	Micro USB receptacle	105017-0001	Molex		
L1	1	2.2uH	Inductor, Shielded, Composite, 2.2 uH, 9.2 A, 0.01 ohm, AEC-Q200 Grade 1, SMD	5.3x31.x5.5mm	XAL5030-222MEB	Coilcraft		
L2, L3	2	470nH	Inductor, Shielded, 470 nH, 4.7 A, 0.021 ohm, SMD	1008	DFE252012PD-R47M	MuRata Toko		
L4	1	1uH	Inductor, Shielded, 1 uH, 3.8 A, 0.035 ohm, AEC-Q200 Grade 1, SMD	1008	DFE252012PD-1ROM	MuRata Toko		
L5, L6, L10	3	100nH	Inductor, Wirewound, Ferrite, 100 nH, 2.85 A, 0.024 ohm, AEC-Q200 Grade 1, SMD	3.2x2.2x2.5mm	NLCV32T-R10M-EFRD	TDK		
L7	1	600 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 4 A, 2220	2220	HI2220P601R-10	Laird-Signal Integrity Products		
L8, L9	2	120 ohm	Ferrite Bead, 120 ohm @ 100 MHz, 1.9 A, 0603	0603	BLM18KG121TH1D	MuRata		
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		

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P6	1		DC Power Jack, R/A, TH	DC Power Jack, R/A, TH	PJ-051AH	CUI Inc.		
Q1, Q2	2	100V	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23	BSS123	Fairchild Semiconductor		None
R1, R2, R4, R5, R6, R7, R10, R17, R18, R19, R20, R22, R23, R24, R25, R27, R28, R29, R30, R31, R32, R35, R36, R48, R49, R50, R51, R52, R53, R58, R59, R60, R62, R63, R64, R65, R66, R67, R69, R70, R71, R72, R75, R76, R94, R104, R105, R106, R111, R136, R162, R163, R165, R167, R168, R198, R199, R201	58	0	RES, 0, 5%, 0.05 W, 0201	0201	CRCW02010000Z0ED	Vishay-Dale		
R3, R13, R14, R15, R16, R41, R43, R73, R74, R86, R89, R91, R98, R113, R155, R158, R194, R197, R208	19	10.0k	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R11, R12, R37, R78, R107, R128, R129, R141, R152, R196, R200	11	0	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GE0R00X	Panasonic		
R34, R156	2	0	RES, 0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010	CRCW20100000Z0EF	Vishay-Dale		
R38	1	47.5k	RES, 47.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040247K5FKED	Vishay-Dale		
R39, R40, R42, R44, R45	5	33.2	RES, 33.2, 1%, 0.05 W, 0201	0201	CRCW0201133R2FNED	Vishay-Dale		
R47, R81, R119, R120, R121, R143, R144, R148, R149, R157, R189	11	0	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R54, R55, R56, R57, R179, R180, R181, R182, R183, R184	10	20.0	RES, 20.0, 1%, 0.05 W, 0201	0201	CRCW020120R0FNED	Vishay-Dale		
R61	1	10.0k	RES, 10.0 k, 1%, 0.1 W, 0402	0402	ERJ-2RKF1002X	Panasonic		
R68, R77, R79, R80, R154	5	100	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GEJ101X	Panasonic		
R82, R142, R186	3	10k	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R84	1	100k	RES, 100 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402100KJNED	Vishay-Dale		
R85, R87	2	61.9	RES, 61.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040261R9FKED	Vishay-Dale		
R88, R96, R114	3	82.5k	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040282K5FKED	Vishay-Dale		
R90, R103, R117, R202	4	360	RES, 360, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GEJ361X	Panasonic		
R92, R95, R99	3	7.87k	RES, 7.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04027K87FKED	Vishay-Dale		
R93, R101, R112	3	750	RES, 750, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402750RFKED	Vishay-Dale		
R110, R138, R172, R173	4	100k	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402100KFKED	Vishay-Dale		
R116, R160	2	510	RES, 510, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GEJ511X	Panasonic		
R118	1	220	RES, 220, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402220RJNED	Vishay-Dale		
R122	1	12.1k	RES, 12.1 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	ERA-2AEB1212X	Panasonic		
R123, R124, R126, R127, R140	5	1.00k	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04021K00FKED	Vishay-Dale		
R125	1	4.87k	RES, 4.87 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04024K87FKED	Vishay-Dale		
R130, R133, R137, R161, R175	5	0	RES, 0, 5%, 0.125 W, 0603	0603	MCT06030Z0000ZP500	Vishay/Beyschlag		
R131, R132	2	3.3k	RES, 3.3 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04023K30JNED	Vishay-Dale		
R134	1	49.9	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040249R9FKED	Vishay-Dale		

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R139	1	4.87k	RES, 4.87 k, 0.1%, 0.062 W, AEC-Q200 Grade 0, 0402	0402	ERA-2AEB4871X	Panasonic		
R145	1	48.7k	RES, 48.7 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	ERA-2AEB4872X	Panasonic		
R146	1	4.42k	RES, 4.42 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	ERA-2ARB4421X	Panasonic		
R150	1	100	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402100RFKED	Vishay-Dale		
R151, R153	2	330k	RES, 330 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402330KFKED	Vishay-Dale		
R170, R171	2	2.94k	RES, 2.94 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04022K94FKED	Vishay-Dale		
R174	1	30.0k	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040230K0FKED	Vishay-Dale		
R193	1	26.1k	RES, 26.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040226K1FKED	Vishay-Dale		
S1	1		Switch, SPST, Slide, Off-On, 3 Pos, 0.1A, 20V, SMD	6.7x9.09mm	219-3MST	CTS Electrocomponents		
S2	1		Slide SW, SPDT 0.1A 50VDC	SW, 3.1x2.5x6 mm	CJS-1201TA	Copal Electronics		
SW1, SW2	2		Switch, SPST-NO, Off-Mom, 0.01 A, 32 VDC, SMD	4.2x2.8mm	KMR243GLFG	C&K Components		
TP1, TP3	2		Test Point, Miniature, Black, TH	Black Miniature Testpoint	5001	Keystone		
U1	1		2.3V-3.6V, 16M-BIT [x 1/x 2/x 4] CMOS FLASH Memory, WSON-8	WSON-8	MX25V1635FZNQ	Macronix International Co., LT		
U2	1		AWR1843ABL, ABL0161B (FCBGA-161)	ABL0161B	AWR1843ABL	Texas Instruments		Texas Instruments
U3	1		Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A	TCAN1042HGVDQ1	Texas Instruments	TCAN1042HGVDQR1	Texas Instruments
U4	1		Boost and Dual Buck Regulators With Diagnostic Functions, RHB0032N (VQFN-32)	RHB0032N	LP87702DRHBRQ1	Texas Instruments		Texas Instruments
U5	1		Automotive 3A High-Accuracy Low-Noise Low-Dropout (LDO) Voltage Regulator, RGR0020A (VQFN-20)	RGR0020A	TPS7A5301QRGRRQ1	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	TM4C1294NCPDIT3	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		
U8	1		2.5A, 36 V Synchronous, 2.1MHz, Automotive Step Down DC-DC Converter, RNL0022A (VQFN-HR-22)	RNL0022A	LM536253QRNLRQ1	Texas Instruments	LM536253QRNLTQ1	Texas Instruments
U10	1		4-Channel ESD Protection Array for High-Speed Data Interfaces, DRY0006A (USON-6)	DRY0006A	TPD4E004DRYR	Texas Instruments		
U11	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		
U12, U13	2		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
U14	1		10-Ohm Quad SPDT Analog Switch, RSV0016A (UQFN-16)	RSV0016A	TS3A5018RSVR	Texas Instruments		Texas Instruments
Y1	1		Crystal, 40 MHz, 8pF, SMD	3.2x2.5mm	CX3225SA40000D0PTWCC	Kyocera		
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		
Z1, Z2, Z3, Z4, Z5, Z6, Z7, Z8	8		Bump, Cylindrical, 0.312 X 0.200, Black	Black Bump	SJ61A1	3M		
Z9, Z10, Z11	3		MACHINE SCREW PAN PHILLIPS 6-32		PMSSS 632 0038 PH	B&F Fastener Supply		
Z12, Z13, Z14	3		Nut, Hex, 5/16", Stainless Steel, 6-32	Hex Nut	HNSS 632	B&F Fastener Supply		
Z15, Z16, Z17, Z18	4		Aluminum Mounting Bracket		625	Keystone		
Z19	1		Cable, USB A Male to Micro B Male 3'		3025010-03	Qualtek Electronics Corporation		
Z20, Z21	2	1x2	Shunt, 100mil, Flash Gold, Black	Closed Top 100mil Shunt	SPC02SYAN	Sullins Connector Solutions		
C83	0	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805	GCM21BR71A106KE22L	MuRata		
FID1, FID2, FID3, FID4, FID5, FID6	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
P1	0		Header, 2.54 mm, 3x1, Tin, TH	Header, 2.54 mm, 3x1, TH	TSW-103-07-T-S	Samtec		
P7	0		Header, 100mil, 2x1, Gold, TH	2x1 Header	TSW-102-07-G-S	Samtec		
R8, R9, R21, R26, R33, R102, R108, R109, R135, R164, R166, R169	0	0	RES, 0, 5%, 0.05 W, 0201	0201	CRCW02010000Z0ED	Vishay-Dale		
R46, R100, R147, R159, R188	0	0	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R83	0	20	RES, 20, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603	CRCW060320R0JNEA	Vishay-Dale		
R97, R178	0	0	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GE0R00X	Panasonic		
R115	0	0	RES, 0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010	CRCW20100000Z0EF	Vishay-Dale		
R177	0	10.0k	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R190	0	10k	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0JNED	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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