

IWR6843ISK

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC B	1		Printed Circuit Board		PROC073	Any		
C4, C5, C6, C9, C10, C11, C12, C14, C16, C19, C20, C21, C28, C29	14	0.22uF	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	GCM155R71C224KE02D	MuRata		
C7, C13, C15, C23, C24, C45	6	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805	GCM21BR71A106KE22L	MuRata		
C17, C27	2	2.2uF	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R70J225KE22D	MuRata		
C18, C22, C35	3	1uF	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	GCM188R71C105KA64D	MuRata		
C25, C26	2	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402	GCM155R71C104KA55D	MuRata		
C30	1	0.01uF	CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0402	0402	GCM155R71E103KA37D	MuRata		
C31	1	0.1uF	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7S, 0201	0201	C0603X7S1A104K030BC	TDK		
C32, C33	2	4.7pF	CAP, CERM, 4.7 pF, 50 V, +/- 2%, C0G/NP0, 0402	0402	GJM1555C1H4R7BB01D	MuRata		
C34, C36, C57, C58, C59, C63, C65	7	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402	CGA2B3X7R1H104K050BB	TDK		
C37, C42, C49	3	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	0805	CL21B106K0QNNNE	Samsung Electro-Mechanics		
C38, C39, C43, C62, C66, C67	6	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402	0402YC104KAT2A	AVX		
C40, C41, C44, C46, C47	5	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X7T, AEC-Q200 Grade 1, 0805	0805	GCM21BD70J226ME36L	MuRata		
C48	1	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C103KA01D	MuRata		
C50	1	1uF	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, 0603	0603	CL10B105KQ8NNNC	Samsung Electro-Mechanics		
C51	1	0.1uF	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0603	0603	GRM188R70J104KA01D	MuRata		
C54, C55, C56	3	1uF	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X6S, 0402	0402	CGB2A1X6S0J105K033BC	TDK		
C61	1	22uF	CAP, CERM, 22 uF, 16 V, +/- 20%, X5R, 0805	0805	GRM219R61C226ME15L	MuRata		
DS1	1	Yellow	LED, Yellow, SMD	1.6x0.8mm	TLMY1000-GS08	Vishay-Semiconductor		
J1, J2	2		Receptacle, 0.5 mm, 30x2, Gold, TH	Receptacle, 0.5 mm, 30x2, TH	QSH-030-01-L-D-A	Samtec		
L1, L2, L3, L7	4	120 ohm	Ferrite Bead, 120 ohm @ 100 MHz, 1.9 A, 0603	0603	BLM18KG121TH1D	MuRata		
L4, L5	2	470nH	Inductor, Shielded, 470 nH, 4.7 A, 0.021 ohm, SMD	1008	DFE252012PD-R47M	MuRata Toko		
L6	1	1uH	Inductor, Shielded, 1 uH, 3.8 A, 0.035 ohm, AEC-Q200 Grade 1, SMD	1008	DFE252012PD-1R0M	MuRata Toko		
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	100V	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23	BSS123	Fairchild Semiconductor		None
R1, R99	2	0	RES, 0, 5%, 0.125 W, 0603	0603	MCT06030Z0000ZP500	Vishay/Beyschlag		
R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R16, R22, R24, R25, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R55, R56, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R88, R89, R108, R109, R110, R111, R131, R133, R134, R135, R136, R137, R140, R143,	58	0	RES, 0, 5%, 0.05 W, 0201	0201	CRCW02010000Z0ED	Vishay-Dale		

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
R15, R17, R18, R19, R20, R21, R23, R26, R27, R28, R124, R125, R126, R127, R128, R129, R130, R132	18	20.0	RES, 20.0, 1%, 0.05 W, 0201	0201	CRCW020120R0FNED	Vishay-Dale		
R43, R72, R73, R74, R75, R76, R77	7	0	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GE0R00X	Panasonic		
R44, R49, R52, R53, R54, R94, R101, R103, R104, R105, R106, R112, R115, R117, R142, R145, R146, R152, R158, R162	20	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R45, R46, R47, R48, R51	5	33.2	RES, 33.2, 1%, 0.05 W, 0201	0201	CRCW020133R2FNED	Vishay-Dale		
R50	1	47.5k	RES, 47.5 k, 1%, 0.063 W, 0402	0402	CRCW040247K5FKED	Vishay-Dale		
R68, R70, R71, R81, R96, R123	6	0.002	RES, 0.002, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206	PMR18E2PFV2L00	Rohm		
R78, R79	2	510	RES, 510, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402	ERJ-2GEJ511X	Panasonic		
R80, R153, R154, R155, R156	5	100k	RES, 100 k, 1%, 0.063 W, 0402	0402	CRCW0402100KFKED	Vishay-Dale		
R82, R83, R84, R121, R151, R166, R167, R171	8	0	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R85	1	12.1k	RES, 12.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040212K1FKED	Vishay-Dale		
R86, R87, R118, R141, R148, R150, R163, R169, R170	9	10k	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R92	1	48.7k	RES, 48.7 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040248K7FKED	Vishay-Dale		
R97	1	11.8k	RES, 11.8 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040211K8FKED	Vishay-Dale		
R119	1	510	RES, 510, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW0402510RJNED	Vishay-Dale		
R120	1	100k	RES, 100 k, 1%, 0.1 W, 0402	0402	ERJ-2RKF1003X	Panasonic		
U1	1		IWR1843QAGABL, ABL0161B (FCBGA-161)	ABL0161B	IWR6843QAGABL	Texas Instruments		Texas Instruments
U2	1		2.3V-3.6V, 16M-BIT [x 1/x 2/x 4] CMOS FLASH Memory, WSON-8	WSON-8	MX25V1635FZLNQ	Macronix International Co., LT		
U3	1		Automotive Grade, 1.4V-Capable +/-0.5degC Temperature Sensor with Alert Function and I2C/SMBus, DRL0006A (SOT-OTHER-6)	DRL0006A	TMP112AQDRLRQ1	Texas Instruments		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, U7, U8, U10	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	INA226AIDGST			
U9	1		5.5-V, 2-A, 80 mohm Low Leakage Load Switch with RCB and Programmable Rise Time, DBV0006A (SOT-23-6)	DBV0006A	TPS22917DBVR	Texas Instruments	TPS22917DBVT	Texas Instruments
U11	1		IC, EEPROM, 8KBIT, 400KHZ, 8SOIC	SOIC-8	CAT24C08WI-GT3	ON Semiconductor		
Y1	1		Crystal, 40 MHz, 8pF, SMD	3.2x2.5mm	CX3225SA40000D0PT WCC	Kyocera		
C1, C2, C3, C64	0	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206	CGA5L1X7R0J226M16 0AC	TDK		
C8	0	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805	GCM21BR71A106KE22 L	MuRata		
C52	0	0.01uF	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X7R, 0402	0402	GRM155R71C103KA01 D	MuRata		
C53	0	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402	0402YC104KAT2A	AVX		
C60	0	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402	CGA2B3X7S2A102K05 0BB	TDK		
FID1, FID2, FID3, FID4, FID5, FID6	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
R2, R14, R107, R113, R114, R116, R139, R147, R157, R161	0	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R3	0	0.002	RES, 0.002, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206	PMR18E2PFV2L00	Rohm		

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
R57, R69, R90, R91, R93, R98, R102, R165, R168	0	0	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R95, R100, R164	0	10k	RES, 10 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402	CRCW040210K0JNED	Vishay-Dale		
R122	0	1.0k	RES, 1.0 k, 5%, 0.1 W, 0603	0603	RC0603JR-071KL	Yageo		
R138	0	0	RES, 0, 0%, 0.25 W, AEC-Q200 Grade 0, 0603	0603	RCS06030000Z0EA	Vishay-Dale		

Notes:

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

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2019, Texas Instruments Incorporated