



ISFA-424 REV E2 Bill of Materials

								Würth alt PN	Datasheet link
1	IPCB1	1		ISFA-424	Any	Printed Circuit Board			
3	C4_T1-PHY1, C4_T1-PHY2, C4_T1-PHY3,	8	10uF	GRM155R60J106ME47D	MuRata	CAP, CERM, 10 µF, 6.3 V, +/- 20%, X5R, 0402	0402	885012105020	https://www.we-online.com/catalog/datasheet/885012105020.pdf
4	C5_T1-PHY1, C5_T1-PHY2, C5_T1-PHY3,	8	1uF	GRM155R70J105MA12D	MuRata	CAP, CERM, 1 uF, 6.3 V, +/- 20%, X7R, 0402 Würth: 885012105006	0402	885012105006	https://www.we-online.com/en/components/products/datasheet/885012105006.pdf
6	C8_T1-PHY1, C8_T1-PHY2, C8_T1-PHY3,	12	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0402	0402	885012205067	https://www.we-online.com/catalog/datasheet/885012205067.pdf
7	C12_T1-PHY1, C12_T1-PHY2, C12_T1-PHY3,	5	22pF	CGA2B2NP01H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402	885392005114	https://www.we-online.com/en/components/products/datasheet/885392005114.pdf
8	C14, C42	2	4.7uF	LMK212B7475KG-T	Taiyo Yuden	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X7R, 0805	0805	885012207025	https://www.we-online.com/catalog/datasheet/885012207025.pdf
14	C41	1	10uF	C2012X7R1A106M125AC	TDK	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0805	0805	885012207026	https://www.we-online.com/catalog/datasheet/885012207026.pdf
15	C44, C45	2	22uF	C2012X7S1A226M125AC	TDK	CAP, CERM, 22 uF, 10 V, +/- 20%, X7S, 0805	0805	885012107011	https://www.we-online.com/en/components/products/datasheet/885012107011.pdf
16	C46, C135_PSE- CDN1, C135_PSE- CDN2, C135_PSE-	5	1000pF	1812GC102KA1	AVX	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1812	1812	885342211009	https://www.we-online.com/en/components/products/datasheet/885342211009.pdf
17	C47_T1-CDN1, C47_T1-CDN2, C47_T1-CDN3,	8	0.22uF	GRM155R61A224KE19D	MuRata	CAP, CERM, 0.22 uF, 10 V, +/- 10%, X5R, 0402	0402	885012105011	https://www.we-online.com/catalog/datasheet/885012105011.pdf
19	C50_PSE-CDN1, C50_PSE-CDN2, C50_PSE-CDN3,	12	0.01uF	C1206X103KDRAC7800	Kemet	CAP, CERM, 0.01 µF, 1000 V, +/- 10%, X7R, 1206	1206	885342208021	https://www.we-online.com/catalog/datasheet/885342208021.pdf
21	C57_PWR1, C57_PWR2, C57_PWR3,	4	0.068uF	CGA3E2X7R1H683K080AA	TDK	CAP, CERM, 0.068 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	885012210024	https://www.we-online.com/en/components/products/datasheet/885012210024.pdf
27	C74	1	0.47uF	GRM155R61A474KE15D	MuRata	CAP, CERM, 0.47 uF, 10 V, +/- 10%, X5R, 0402	0402	885012105004	https://www.we-online.com/en/components/products/datasheet/885012105004.pdf
29	C79	1	0.47uF	CGA2B1X7S1C474K050BE	TDK	CAP, CERM, 0.47 µF, 16 V, +/- 10%, X7S, 0402	0402	885012105004	https://www.we-online.com/en/components/products/datasheet/885012105004.pdf
30	C81, C136, C137	3	1uF	GRM155R61E105MA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 20%, X5R, 0402	0402	885012105012	https://www.we-online.com/en/components/products/datasheet/885012105012.pdf
32	C94, C95	2	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 uF, 25 V, +/- 20%, X5R, 1206_190	1206_190	885012108012	https://www.we-online.com/en/components/products/datasheet/885012108012.pdf
35	C101	1	22pF	CGA2B2C0G1H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402	885392005114	https://www.we-online.com/en/components/products/datasheet/885392005114.pdf
36	C103, C130	2	1uF	GRM155R6YA105ME11D	MuRata	CAP, CERM, 1 uF, 35 V, +/- 20%, X5R, 0402	0402	na	
37	C104, C106	2	10uF	C2012JB1V106K125AC	TDK	CAP, CERM, 10 µF, 35 V, +/- 10%, JB, 0805	0805	na	
38	C105, C109	2	120pF	GRM1555C1H121JA01D	MuRata	CAP, CERM, 120 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402	na	
39	C107, C108, C110, C115	4	22uF	GRM187R61A226ME15D	MuRata	CAP, CERM, 22 uF, 10 V, +/- 20%, X5R, 0603	0603		
40	C111, C112	2	0.22uF	GCJ188R71H224KA01D	MuRata	CAP, CERM, 0.22 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603	na	
41	C114, C128	2	22uF	C3225X7R1C226K250AC	TDK	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210	885012209074	https://www.we-online.com/catalog/datasheet/885012209074.pdf
42	C117	1	100uF	GRM32ER61A107ME20K	MuRata	CAP, CERM, 100 µF, 10 V, +/- 20%, X5R, 1210	1210	885012109004	https://www.we-online.com/en/components/products/datasheet/885012109004.pdf
44	C129	1	20pF	C0402C200J5GACTU	Kemet	CAP, CERM, 20 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402		
45	C139, C140, C142, C143	4	10uF	CGA5L3X5R1H106M160AB	TDK	CAP, CERM, 10 uF, 50 V, +/- 20%, X5R, AEC-Q200 Grade 3, 1206	1206	885012108022	https://www.we-online.com/en/components/products/datasheet/885012108022.pdf

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46	C141, C144	2	0.1uF	GRM319R71H104KA01D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 1206	1206	885012208087 https://www.we-online.com/catalog/datasheet/885012208087.pdf
48	D4, D5, D6, D25	4		TPD1E1B04DPYR	Texas Instruments	1-Channel ESD Protection Diode With Low Dynamic Resistance and Low Clamping Voltage, DPY0002A (X1SON-2)	DPY0002A	
49	D7_PSE-CDN1, D7_PSE-CDN2, D7_PSE-CDN3, D7_PSE-CDN4, D8_PSE-CDN1, D8_PSE-CDN2, D8_PSE-CDN3, D8_PSE-CDN4, D10_PSE-CDN1, D10_PSE-CDN2, D10_PSE-CDN3, D10_PSE-CDN4, D11_PSE-CDN1, D11_PSE-CDN2, D11_PSE-CDN3, D11_PSE-CDN4	16	100V	MURA110T3G	ON Semiconductor	Diode, Ultrafast, 100 V, 2 A, SMA	SMA	
50	D9_PSE-CDN1, D9_PSE-CDN2, D9_PSE-CDN3, D9_PSE-CDN4	4	36V	SMCJ36CA	Littelfuse	Diode, TVS, Bi, 36 V, 58.1 Vc, SMC	SMC	
51	D12_PWR1, D12_PWR2, D12_PWR3, D12_PWR4	4	3V	MMSZ4683T1G	ON Semiconductor	Diode, Zener, 3 V, 500 mW, SOD-123	SOD-123	
52	D13_PWR1, D13_PWR2, D13_PWR3, D13_PWR4	4	100V	SS110-TP	Micro Commercial Componen	Diode, Schottky, 100 V, 1 A, SMA	SMA	
53	D14_PSE1, D14_PSE2, D14_PSE3, D14_PSE4, D15_PSE1, D15_PSE2, D15_PSE3, D15_PSE4, D18_PSE1, D18_PSE2, D18_PSE3, D18_PSE4, D19_PSE1, D19_PSE2, D19_PSE3, D19_PSE4, D21_PSE1, D21_PSE2, D21_PSE3, D21_PSE4, D22_PSE1, D22_PSE2, D22_PSE3, D22_PSE4, D23_PSE1, D23_PSE2, D23_PSE3, D23_PSE4, D24_PSE1, D24_PSE2, D24_PSE3, D24_PSE4	32		PMEG6010AESBYL	Nexperia	DIODE SCHOTTKY 60V 1A DSN1006-2	SOD993	
54	D16_PSE1, D16_PSE2, D16_PSE3, D16_PSE4	4	5.6V	MMSZ4690-E3-08	Vishay-Semiconductor	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123	
55	D31	1	30V	BAT54AT-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-523	SOT-523	
56	D39	1	6.8V	MMSZ4692-HE3-08	Vishay-Semiconductor	Diode, Zener, 6.8 V, 500 mW, AEC-Q101, SOD-123	SOD-123	
57	D40, D41, D42, D43	4		ESD321DPYR	Texas Instruments	1-channel 30 kV ESD protection diode with low capacitance (< 1pF) in 0402 package, DPY0002A (X1SON-2)	DPY0002A	
58	F1	1		0454002.MR	Littelfuse	Fuse, 2 A, 125VAC/VDC, SMD	SloBlo452	
59	FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A	
60	H2, H3, H4, H5	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw	
61	J1, J2, J3, J4	4		1163797	Phoenix Contact	Jack Modular Connector 2P2C Single Pair Ethernet (SPE) 90° Angle (Right) Shielded CatB	PTH_ETHERNET_CON NECTOR	
70	J16	1		FTR-110-51-S-D-06	Samtec	Header, 1.27mm, 10x2, Tin, SMT	Header, 1.27mm, 10x2, SMT	62102021021 https://www.we-online.com/components/products/datasheet/62102021021.pdf
71	J18, J19	2		SSQ-110-03-T-D	Samtec	Receptacle, 2.54mm, 10x2, Tin, TH	10x2 Receptacle	61302021821 https://www.we-online.com/components/products/datasheet/61302021821.pdf
74	J25, J26	2		TSW-107-07-G-S	Samtec	Header, 100mil, 7x1, Gold, TH	7x1 Header	61300711121 https://www.we-online.com/components/products/datasheet/61300711121.pdf
75	L2, L5	2	2.2uH	SDER041H-2R2MS	Cyntec	Inductor, 2.2 uH, 2.8 A, 0.045 ohm, SMD	4x4mm	

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77	L4_PSE-CDN1, L4_PSE-CDN2, L4_PSE-CDN3, L4_PSE-CDN4	4		RCM70CGI-471N	TDK	Common Mode Choke for 10 Base T1L	SMT4_7MM1_6MM0		
84	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch		
85	Q1_T1-PHY1, Q1_T1-PHY2, Q1_T1-PHY3, Q1_T1-PHY4, Q2_T1-PHY1, Q2_T1-PHY2, Q2_T1-PHY3, Q2_T1-PHY4, Q12_T1-PHY1, Q12_T1-PHY2, Q12_T1-PHY3, Q12_T1-PHY4, Q13_Q14_Q17	15	12V	CSD13383F4	Texas Instruments	MOSFET, N-CH, 12 V, 2.9 A, YJC0003A (PICOSTAR-3)	YJC0003A		
86	Q3_PSE1, Q3_PSE2, Q3_PSE3, Q3_PSE4	4	80 V	BCP53,115	NXP Semiconductor	Transistor, PNP, 80 V, 1 A, SOT-223	SOT-223		
87	Q4_PSE1, Q4_PSE2, Q4_PSE3, Q4_PSE4, Q6_PSE1, Q6_PSE2, Q6_PSE3, Q6_PSE4	8	60V	2N7002W-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.115 A, SOT-323	SOT-323		
88	Q5_PSE1, Q5_PSE2, Q5_PSE3, Q5_PSE4, Q7_PSE1, Q7_PSE2, Q7_PSE3, Q7_PSE4	8	60V	CSD18541F5	Texas Instruments	MOSFET, N-CH, 60 V, 2.2 A, YJK0003A (PICOSTAR-3)	YJK0003A		
89	Q8_PSE1, Q8_PSE2, Q8_PSE3, Q8_PSE4	4	-20V	CSD25310Q2	Texas Instruments	MOSFET, P-CH, -20 V, -20 A, DQK0006C (WSON-6)	DQK0006C		
90	Q9_PSE1, Q9_PSE2, Q9_PSE3, Q9_PSE4, Q10_PSE1, Q10_PSE2, Q10_PSE3, Q10_PSE4, Q11	9	100V	CSD19538Q2	Texas Instruments	MOSFET, N-CH, 100 V, 4.5 A, DQK0006C (WSON-6)	DQK0006C		
91	Q15, Q16	2	20V	CSD85301Q2	Texas Instruments	MOSFET, 2-CH, N-CH, 20 V, 6.7 A, DQK0006B (WSON-6)	DQK0006B		
92	R1_T1-CDN1, R1_T1-CDN2, R1_T1-CDN3, R1_T1-CDN4, R10_T1-CDN1, R10_T1-CDN2, R10_T1-CDN3, R10_T1-CDN4	8	39.2	CRCW040239R2FKED	Vishay-Dale	RES, 39.2, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
93	R2, R84, R221	3	8.2k	CRCW04028K20JNED	Vishay-Dale	RES, 8.2 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
94	R3, R73, R74, R205, R206, R207, R208, R209, R210, R215	10	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402		
95	R4_T1-CDN1, R4_T1-CDN2, R4_T1-CDN3, R4_T1-CDN4, R7_T1-CDN1, R7_T1-CDN2, R7_T1-CDN3, R7_T1-CDN4	8	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402		
96	R5, R35, R46	3	200	CRCW0402200RFKED	Vishay-Dale	RES, 200, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
97	R6_T1-CDN1, R6_T1-CDN2, R6_T1-CDN3, R6_T1-CDN4, R8_T1-CDN1, R8_T1-CDN2, R8_T1-CDN3, R8_T1-CDN4	8	2.00k	CRCW04022K00FKED	Vishay-Dale	RES, 2.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		

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98	R9, R12, R186, R191, R192, R218, R219, R220	8	22	CRCW040222R0JNED	Vishay-Dale	RES, 22, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
99	R11, R48, R51, R155, R156, R157, R158, R159, R168, R169, R170, R171, R172, R173, R174, R175	16	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
100	R16_T1-PHY1, R16_T1-PHY3, R17_T1-PHY1, R17_T1-PHY3, R20_T1-PHY1, R20_T1-PHY2, R20_T1-PHY3, R20_T1-PHY4, R67, R68	10	2.20k	CRCW04022K20FKED	Vishay-Dale	RES, 2.20 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
101	R18_T1-PHY1, R18_T1-PHY2, R18_T1-PHY3, R18_T1-PHY4, R19_T1-PHY1, R19_T1-PHY2, R19_T1-PHY3, R19_T1-PHY4, R58, R59, R60	11	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603		
102	R21_T1-PHY1, R21_T1-PHY2, R21_T1-PHY3, R21_T1-PHY4, R47, R72, R83	7	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
103	R22_T1-PHY1, R22_T1-PHY2, R22_T1-PHY3, R22_T1-PHY4, R23_T1-PHY1, R23_T1-PHY2, R23_T1-PHY3, R23_T1-PHY4, R24_T1-PHY1, R24_T1-PHY2, R24_T1-PHY3, R24_T1-PHY4, R66, R188, R214	15	3.3k	CRCW04023K30JNED	Vishay-Dale	RES, 3.3 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
104	R28_T1-PHY1, R28_T1-PHY2, R28_T1-PHY3, R28_T1-PHY4, R29_T1-PHY2, R29_T1-PHY4, R37_T1-PHY1, R37_T1-PHY2, R37_T1-PHY3, R37_T1-PHY4, R38_T1-PHY1, R38_T1-PHY2, R38_T1-PHY3, R38_T1-PHY4, R40_T1-PHY1, R40_T1-PHY3, R41_T1-PHY1, R41_T1-PHY2, R41_T1-PHY3, R41_T1-PHY4, R42_T1-PHY1, R42_T1-PHY2, R42_T1-PHY3, R42_T1-PHY4, R43_T1-PHY1, R43_T1-PHY2, R43_T1-PHY3, R43_T1-PHY4, R44_T1-PHY1, R44_T1-PHY2, R44_T1-PHY3, R44_T1-PHY4	37	2.49k	CRCW04022K49FKED	Vishay-Dale	RES, 2.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
105	R49	1	316k	CRCW0402316KFKED	Vishay-Dale	RES, 316 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
106	R50, R53	2	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
107	R52	1	66.5k	CRCW040266K5FKED	Vishay-Dale	RES, 66.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		

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108	R54_PSE-CDN1, R54_PSE-CDN2, R54_PSE-CDN3, R54_PSE-CDN4, R55_PSE-CDN1, R55_PSE-CDN2, R55_PSE-CDN3, R55_PSE-CDN4	8	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805		
109	R56, R57, R61, R62, R212, R213	6	470	CRCW0402470RJNED	Vishay-Dale	RES, 470, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
110	R63, R70, R194, R236	4	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
111	R64, R160, R161, R162, R163, R164, R165, R166, R167, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R187, R189, R190, R195, R196, R199, R200, R201, R202, R203, R204, R211, R216, R217, R225, R230, R238	36	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
112	R65	1	11.5k	CRCW040211K5FKED	Vishay-Dale	RES, 11.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
113	R69	1	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
114	R71, R94_PSE- CDN1, R94_PSE- CDN2, R94_PSE- CDN3, R94_PSE- CDN4	5	1.0Meg	CRCW20101M00JNEF	Vishay-Dale	RES, 1.0 M, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010		
115	R77	1	5.76k	CRCW04025K76FKED	Vishay-Dale	RES, 5.76 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
116	R85	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
117	R95_PSE-CDN1, R95_PSE-CDN2, R95_PSE-CDN3, R95_PSE-CDN4	4	100	CRCW0805100RFKEA	Vishay-Dale	RES, 100, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805		
118	R98_PWR1, R98_PWR2, R98_PWR3, R98_PWR4, R107_PSE1, R107_PSE2, R107_PSE3, R107_PSE4, R117_PSE1, R117_PSE2, R117_PSE3, R117_PSE4, R118_PSE1, R118_PSE2, R118_PSE3, R118_PSE4, R119_PSE1, R119_PSE2, R119_PSE3, R119_PSE4	20	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
119	R99_PWR1, R99_PWR2, R99_PWR3, R99_PWR4	4	825k	RC0603FR-07825KL	Yageo	RES, 825 k, 1%, 0.1 W, 0603	0603		
120	R100_PWR1, R100_PWR2, R100_PWR3, R100_PWR4	4	16.9k	CRCW060316K9FKEA	Vishay-Dale	RES, 16.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
121	R101_PWR1, R101_PWR2, R101_PWR3, R101_PWR4	4	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
122	R102_PWR1, R102_PWR2, R102_PWR3, R102_PWR4	4	402k	RC0603FR-07402KL	Yageo	RES, 402 k, 1%, 0.1 W, 0603	0603		

								Wurth alt PN	Datasheet link
123	R103_PWR1, R103_PWR2, R103_PWR3, R103_PWR4, R137_PSE1, R137_PSE2, R137_PSE3, R137_PSE4	8	62.0k	RC0603FR-0762KL	Yageo	RES, 62.0 k, 1%, 0.1 W, 0603	0603		
124	R104_PWR1, R104_PWR2, R104_PWR3, R104_PWR4	4	30.1k	CRCW060330K1FKEA	Vishay-Dale	RES, 30.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
125	R105_PSE1, R105_PSE2, R105_PSE3, R105_PSE4	4	8.45k	CRCW06038K45FKEA	Vishay-Dale	RES, 8.45 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
126	R106_PSE1, R106_PSE2, R106_PSE3, R106_PSE4, R113_PSE1, R113_PSE2, R113_PSE3, R113_PSE4, R116_PSE1, R116_PSE2, R116_PSE3, R116_PSE4, R123_PSE1, R123_PSE2, R123_PSE3, R123_PSE4, R132_PSE1, R132_PSE2, R132_PSE3, R132_PSE4, R133_PSE1, R133_PSE2, R133_PSE3, R133_PSE4	24	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603		
127	R108_PSE1, R108_PSE2, R108_PSE3, R108_PSE4	4	68.1	RC0603FR-0768R1L	Yageo	RES, 68.1, 1%, 0.1 W, 0603	0603		
128	R109_PSE1, R109_PSE2, R109_PSE3, R109_PSE4, R122_PSE1, R122_PSE2, R122_PSE3, R122_PSE4	8	8.20k	RC0603FR-078K2L	Yageo	RES, 8.20 k, 1%, 0.1 W, 0603	0603		
129	R110_PSE1, R110_PSE2, R110_PSE3, R110_PSE4	4	2.20k	RC0603FR-072K2L	Yageo	RES, 2.20 k, 1%, 0.1 W, 0603	0603		
130	R111_PSE1, R111_PSE2, R111_PSE3, R111_PSE4, R128_PSE1, R128_PSE2, R128_PSE3, R128_PSE4, R131_PSE1, R131_PSE2, R131_PSE3, R131_PSE4	12	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
131	R112_PSE1, R112_PSE2, R112_PSE3, R112_PSE4	4	47	RC1206FR-0747RL	Yageo America	RES, 47.0, 1%, 0.25 W, 1206	1206		
132	R114_PSE1, R114_PSE2, R114_PSE3, R114_PSE4	4	3.3k	CRCW06033K30JNEA	Vishay-Dale	RES, 3.3 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
133	R115_PSE1, R115_PSE2, R115_PSE3, R115_PSE4, R138_PSE1, R138_PSE2, R138_PSE3, R138_PSE4	8	3.30k	RC0603FR-073K3L	Yageo	RES, 3.30 k, 1%, 0.1 W, 0603	0603		

								Wurth alt PN	Datasheet link
134	R120_PSE1, R120_PSE2, R120_PSE3, R120_PSE4	4	15.8k	RC0603FR-0715K8L	Yageo	RES, 15.8 k, 1%, 0.1 W, 0603	0603		
135	R121_PSE1, R121_PSE2, R121_PSE3, R121_PSE4, R134_PSE1, R134_PSE2, R134_PSE3, R134_PSE4	8	100k	CRCW0603100KJNEAC	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603		
136	R124_PSE1, R124_PSE2, R124_PSE3, R124_PSE4, R227, R228	6	68k	CRCW060368K0JNEA	Vishay-Dale	RES, 68 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
137	R125_PSE1, R125_PSE2, R125_PSE3, R125_PSE4	4	91.0k	RC0603FR-0791KL	Yageo	RES, 91.0 k, 1%, 0.1 W, 0603	0603		
138	R126_PSE1, R126_PSE2, R126_PSE3, R126_PSE4	4	107k	RC0603FR-07107KL	Yageo	RES, 107 k, 1%, 0.1 W, 0603	0603		
139	R129_PSE1, R129_PSE2, R129_PSE3, R129_PSE4, R130_PSE1, R130_PSE2, R130_PSE3, R130_PSE4	8	470k	CRCW0603470KJNEA	Vishay-Dale	RES, 470 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
140	R135_PSE1, R135_PSE2, R135_PSE3, R135_PSE4	4	220k	RC0603FR-07220KL	Yageo	RES, 220 k, 1%, 0.1 W, 0603	0603		
141	R136_PSE1, R136_PSE2, R136_PSE3, R136_PSE4	4	120k	RC0603FR-07120KL	Yageo	RES, 120 k, 1%, 0.1 W, 0603	0603		
142	R139_PSE1, R139_PSE2, R139_PSE3, R139_PSE4	4	4.02	CRCW06034R02FKEA	Vishay-Dale	RES, 4.02, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
143	R140_PSE1, R140_PSE2, R140_PSE3, R140_PSE4	4	200	CRCW0603200RFKEA	Vishay-Dale	RES, 200, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
144	R141_PSE1, R141_PSE2, R141_PSE3, R141_PSE4, R197_PSE1, R197_PSE2, R197_PSE3, R197_PSE4	8	47k	RC0603JR-0747KL	Yageo	RES, 47 k, 5%, 0.1 W, 0603	0603		
145	R142_PSE1, R142_PSE2, R142_PSE3, R142_PSE4	4	100	CRCW0603100RFKEAHP	Vishay-Dale	RES, 100, 1%, 0.25 W, AEC-Q200 Grade 0, 0603	0603		
146	R143, R144, R146, R147, R149, R150, R151, R152, R245, R246, R247	11	10.0k	RC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, 0402	0402		
147	R145, R153	2	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
148	R148	1	100k	RG1005P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	0402		
149	R154	1	18.2k	CRCW040218K2FKED	Vishay-Dale	RES, 18.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
150	R193	1	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
151	R222	1	681k	CRCW0402681KFKED	Vishay-Dale	RES, 681 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
152	R223	1	51.1k	CRCW040251K1FKED	Vishay-Dale	RES, 51.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
153	R224	1	40.2k	CRCW040240K2FKED	Vishay-Dale	RES, 40.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
154	R226	1	13.0k	CRCW040213K0FKED	Vishay-Dale	RES, 13.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
155	R233	1	453k	CRCW0402453KFKED	Vishay-Dale	RES, 453 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
156	R243	1	16.5k	CRCW040216K5FKED	Vishay-Dale	RES, 16.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
157	R244	1	3.57k	CRCW04023K57FKED	Vishay-Dale	RES, 3.57 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
159	S3	1		1188E-1K2-V-TR	Diptronics	Switch, SPST, 0.05 A, 12 VDC, SMD	7.8x3.5mm		
163	TP1, TP14, TP16, TP17, TP18	5		5129	Keystone	Test Point, Multipurpose, Purple, TH	Purple Multipurpose Testpoint		

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164	U1_T1-PHY1, U1_T1-PHY2, U1_T1-PHY3, U1_T1-PHY4	4		DP83TD510ERHBR	Texas Instruments	802.3cg 10-M Single-Pair Ethernet PHY for 1000 Meter, RHB0032M (VQFN-32)	RHB0032M		
165	U2	1		DP83867ERGZR	Texas Instruments	Extended Temperature Gigabit Ethernet PHY with SGMII, RGZ0048B (VQFN-48)	RGZ0048B		
166	U3, U4, U5, U6	4		TPD2E2U06DRLR	Texas Instruments	Dual-Channel High-Speed ESD Protection, DRL0005A (SOT-OTHER-5)	DRL0005A		
167	U7_PSE-CDN1, U7_PSE-CDN2, U7_PSE-CDN3, U7_PSE-CDN4	4		ESDS302DBVR	Texas Instruments	3.6V Data-Line Surge and 30kV ESD Protection Diode Array, DBV0005A (SOT-23-5)	DBV0005A		
168	U8_PWR1, U8_PWR2, U8_PWR3, U8_PWR4	4		TPS26601RHFR	Texas Instruments	60-V, 2-A Industrial eFuse With Integrated Reverse Input Polarity Protection, RHF0024A (VQFN-24)	RHF0024A		
169	U9_PSE1, U9_PSE2, U9_PSE3, U9_PSE4, U15_PSE1, U15_PSE2, U15_PSE3, U15_PSE4	8		TLV7031DBVR	Texas Instruments	Nanopower, small size comparator with push-pull output, DBV0005A (SOT-23-5)	DBV0005A		
170	U10_PSE1, U10_PSE2, U10_PSE3, U10_PSE4	4		OPA2991DSGR	Texas Instruments	40-V, dual 4.5MHz, rail-to-rail input/output, low-offset-voltage, low-noise op amp 8-WSON -40 to 125	WSON8		
171	U11_PSE1, U11_PSE2, U11_PSE3, U11_PSE4	4		TLV9051IDCKR	Texas Instruments	Single 5-MHz, 15-V/ μ s high slew-rate, RRIO op amp 5-SC70 -40 to 125	SC-70-5		
172	U12_PSE1, U12_PSE2, U12_PSE3, U12_PSE4, U13_PSE1, U13_PSE2, U13_PSE3, U13_PSE4	8		TLV6700DDCR	Texas Instruments	Micropower, 18V Window Comparator with 400mV Reference, DDC0006A (SOT-23-THIN-6)	DDC0006A		
173	U14_PSE1, U14_PSE2, U14_PSE3, U14_PSE4, U16_PSE1, U16_PSE2, U16_PSE3, U16_PSE4	8		TLV3701IDBVR	Texas Instruments	Single Nanopower Push-Pull Comparator, DBV0005A (SOT-23-5)	DBV0005A		
174	U17	1		MSPM0G1107TPMR	Texas Instruments	Mixed-Signal Microcontrollers LQFP64 ARM 32-bit Cortex®-M0+ 80MHz 128KB Flash 32KB SRAM -40C to +105C	LQFP64		
175	U18	1		TPD6E004RSER	Texas Instruments	Low-Capacitance 6-Channel +/-15 kV ESD Protection Array for High-Speed Data Interfaces, RSE0008A (UQFN-8)	RSE0008A		
176	U19	1		DAC084S085CIMM	Texas Instruments	8-Bit Micro Power QUAD Digital-to-Analog Converter with Rail-to-Rail Output, 10-pin MSOP	DGS0010A		
177	U20	1		REF2912AIDBZR	Texas Instruments	1.25 V, 100ppm / degC, 50 μ A Series (Bandgap) Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A		
178	U21	1		TQMa6442L-AA	TQ-Group	universal TQ-LGA mini module based on the TI Sitara family AM64x and AM243x processors with ARM Cortex A53, Cortex R5 and Cortex M4 cores.	LGA366		
179	U22, U23, U24, U25	4		TMUX1574RSVR	Texas Instruments	Low-capacitance, 2:1 (SPDT) 4-channel, powered-off protection switch with 1.8 V logic, RSV0016A (UQFN-16)	RSV0016A		
180	U26	1		SN74AHC1G125DBVR	Texas Instruments	Single Bus Buffer Gate with 3-State Output, DBV0005A (SOT-23-5)	DBV0005A		
181	U27	1		FT232RQ-REEL	FTDI	Future Technology Devices International Ltd. FT232R USB UART IC, QFN32	32-QFN		
182	U28	1		TS3A27518ERTWR	Texas Instruments	6-Channel, 1:2 Multiplexer/Demultiplexer with Integrated IEC L-4 ESD and 1.8-V Logic Compatible Control Inputs, RTW0024B (WQFN-24)	RTW0024B		
183	U29	1		TPS22963CYZPR	Texas Instruments	5.5V, 3A, 13.8m Ω Load Switch with Reverse Current Protection, YZP0006AFAF (DSBGA-6)	YZP0006AFAF		
184	U30	1		TLVM13630RDHR	Texas Instruments	3-V to 36-V Input, 1-V to 6-V Output, 3-A Power Module	QFN-FCMOD30		
185	U31	1		TVS3300DRVR	Texas Instruments	33-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A		
186	U32	1		LM74700QDBVRQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A		
187	U33, U34	2		TPS62825ADMQ	Texas Instruments	2.4-V to 5.5-V input, 2A step-down converter with 1% output accuracy in 1.5-mm x 1.5-mm QFN package	VSON6		
188	U35, U40	2		TLV62568ADRLR	Texas Instruments	1-A High Efficiency Synchronous Buck Converter with Forced PWM Feature, DRL0006A (SOT-OTHER-6)	DRL0006A		
189	U36, U43	2		TPD4S009DBVR	Texas Instruments	ESD Solution for High-Speed Differential Interface, 4 Channels, -40 to +85 degC, 6-pin SOT-32 (DBV), Green (RoHS & no Sb/Br)	DBV0006A		
190	U37	1		TPD1E10B06DPYR	Texas Instruments	Single-Channel ESD in 0402 Package With 10pF Capacitance and 6V Breakdown, DPY0002A (X1SON-2)	DPY0002A		
191	U38	1		TPD4EUSB30DQAR	Texas Instruments	ESD Solution for Super-Speed (6 GBPS) USB 3.0 Interface, 4 Channels, -40 to +85 degC, 10-pin SON (DQA), Green (RoHS & no Sb/Br)	DQA0010A		
192	U39	1		LMK1C1106PWR	Texas Instruments	Clock Clock Buffer IC 1:8 250 MHz 14-TSSOP (0.173", 4.40mm Width)	TSSOP14		

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193	U41	1		LMR36006BRNXR	Texas Instruments	65-V 0.6-A Synchronous Step-Down Converter, RNX0012B (VQFN-HR-12)	RNX0012B		
194	U42	1		ISO7021D	Texas Instruments	High Speed, Robust EMC Reinforced Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B		
195	U44	1		TPS2553DBVT	Texas Instruments	Adjustable, Active High, Constant-Current, Current-Limited Power-Distribution Switch, 0.075 to 1.7 A Current Limit, -40 to 85 degC, 6-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0006A		
196	U45	1		TLV70733DQNT	Texas Instruments	Single Output Low Noise LDO, 200 mA, Fixed 3.3 V Output, 2 to 5.5 V Input, 4-pin X2SON(DQN), -40 to 85 degC, Green (RoHS & no Sb/Br)	DQN0004A		
197	Y2	1		PLMK6CE02500CDLFT	Texas Instruments	High-Performance BAW Oscillator	VSON4		
198	C3_T1-CDN1, C3_T1-CDN2, C3_T1-CDN3,	0	0.01uF	C0402C103J5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 5%, X7R, 0402	0402	885012205067	https://www.we-online.com/catalog/datasheet/885012205067.pdf
200	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A		
202	R13_T1-CDN1, R13_T1-CDN2, R13_T1-CDN3, R13_T1-CDN4, R14_T1-CDN1, R14_T1-CDN2, R14_T1-CDN3, R14_T1-CDN4	0	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402		
203	R15_T1-CDN1, R15_T1-CDN2, R15_T1-CDN3, R15_T1-CDN4	0	160k	CRCW0402160KFKED	Vishay-Dale	RES, 160 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
204	R16_T1-PHY2, R16_T1-PHY4, R17_T1-PHY2, R17_T1-PHY4	0	2.20k	CRCW04022K20FKED	Vishay-Dale	RES, 2.20 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
205	R25_T1-PHY1, R25_T1-PHY2, R25_T1-PHY3, R25_T1-PHY4, R26_T1-PHY1, R26_T1-PHY2, R26_T1-PHY3, R26_T1-PHY4, R27_T1-PHY1, R27_T1-PHY2, R27_T1-PHY3, R27_T1-PHY4, R29_T1-PHY1, R29_T1-PHY3, R30_T1-PHY1, R30_T1-PHY2, R30_T1-PHY3, R30_T1-PHY4, R31_T1-PHY1, R31_T1-PHY2, R31_T1-PHY3, R31_T1-PHY4, R32_T1-PHY1, R32_T1-PHY2, R32_T1-PHY3, R32_T1-PHY4, R33_T1-PHY1, R33_T1-PHY2, R33_T1-PHY3, R33_T1-PHY4, R34_T1-PHY1, R34_T1-PHY2	0	2.49k	CRCW04022K49FKED	Vishay-Dale	RES, 2.49 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
206	R75	0	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
207	R78	0	5.76k	CRCW04025K76FKED	Vishay-Dale	RES, 5.76 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402		
208	R96_PSE-CDN1, R96_PSE-CDN2, R96_PSE-CDN3, R96_PSE-CDN4, R97_PSE-CDN1, R97_PSE-CDN2, R97_PSE-CDN3, R97_PSE-CDN4	0	100	CRCW0805100RFKEA	Vishay-Dale	RES, 100, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805		
209	R127_PSE1, R127_PSE2, R127_PSE3, R127_PSE4	0	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603		
210	R249	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402		
211	TP20, TP21, TP22, TP24	0		5129	Keystone	Test Point, Multipurpose, Purple, TH	Purple Multipurpose Testpoint		