

**PSIL024 REV A Bill of Materials**

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		PSIL024	Any	Printed Circuit Board	
C1, C2, C3, C4	4	0.01uF	C1608X7R2A103K	TDK	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	0603
C5	1	1000pF	GR442QR73D102KW01L	MuRata	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1808	1808
C6	1	1000pF	1812GC102KAT1A	AVX	CAP, CERM, 1000 pF, 2000 V,+/- 10%, X7R, 1812	1812
C7, C8, C13, C14	4	1000pF	C1608X7R2A102K	TDK	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0603	0603
C9, C10, C11, C12	4	330pF	885012006060	Würth Elektronik	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C15	1	0.01uF	C1608X7R1H103K	TDK	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603
C16	1	0.01uF	GRM188R61H103KA01D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X5R, 0603	0603
C17	1	47uF	EEE-FK1J470P	Panasonic	CAP, AL, 47 µF, 63 V, +/- 20%, 0.65 ohm, SMD	SMT Radial F
C18	1	0.1uF	06033D104KAT2A	AVX	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0603	0603
C19	1	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C20, C36	2	4700pF	1812GC472KAT1A	AVX	CAP, CERM, 4700 pF, 2000 V, +/- 10%, X7R, 1812	1812
C21, C26	2	0.1uF	C2012X7R2A104K125AA	TDK	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C22, C23, C24, C25	4	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2 µF, 100 V, +/- 10%, X7R, 1210	1210
C27	1	270uF	PCV1E271MCL1GS	Nichicon	CAP, Aluminum Polymer, 270 µF, 25 V,+/- 20%, 0.027 ohm, D10xL12.7mm SMD	D10xL12.7mm
C28, C29, C30	3	10uF	C1210C106K3RACTU	Kemet	CAP, CERM, 10 µF, 25 V, +/- 10%, X7R, 1210	1210
C31, C40, C46	3	1uF	GRM21BR71E105KA99L	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	0805
C32	1	100pF	GRM21A5C2E101JW01D	MuRata	CAP, CERM, 100 pF, 250 V, +/- 5%, C0G/NP0, 0805	0805
C33	1	220pF	C0603C221J5GACTU	Kemet	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C34	1	0.022uF	C0603C223K3RACTU	Kemet	CAP, CERM, 0.022 µF, 25 V,+/- 10%, X7R, 0603	0603
C35, C44	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C37	1	3300pF	GRM188R72A332KA01D	MuRata	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603
C38	1	3900pF	GRM1885C1H392JA01D	MuRata	CAP, CERM, 3900 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C39	1	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
C41	1	2.2uF	EMK107BB7225KA-T	Taiyo Yuden	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C43	1	0.047uF	06033C473JAT2A	AVX	CAP, CERM, 0.047 uF, 25 V, +/- 5%, X7R, 0603	0603
C45	1	0.047uF	C1608X7R1H473K080AA	TDK	CAP, CERM, 0.047 µF, 50 V, +/- 10%, X7R, 0603	0603
D1, D2, D3, D4	4	100V	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB
D5	1	58V	SMBJ58A-13-F	Diodes Inc.	Diode, TVS, Uni, 58V, 600W, SMB	SMB
D10	1	100V	PDS5100-13	Diodes Inc.	Diode, Schottky, 100 V, 5 A, PowerDI5	PowerDI5
D11, D12, D13, D16	4	Yellow	150060YS75000	Würth Elektronik	LED, Yellow, SMD	LED_0603
D14	1	200V	ES2DA-13-F	Diodes Inc.	Diode, Superfast Rectifier, 200 V, 2 A, SMA	SMA
D15, D17	2	100V	MMSD4148T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123
D18	1	60V	SBRT20U60SP5-7	Diodes Inc.	Diode, Super Barrier Rectifier, 60 V, 20 A, AEC-Q101, PowerDI5	PowerDI5
D19	1	5.1V	MMSZ5231B-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 500 mW, SOD-123	SOD-123
D21	1	30V	BAT54S-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
H1, H2, H3, H4	4		SJ61A2	3M	Bumpon, Hemisphere, 0.375 X 0.235, Black	Black Bumpon
J1, J2	2		1-406541-1	TE Connectivity	RJ-45, No LED, tab up, R/A, TH	16.26x14.54x15.75
J3	1		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH
J4, J5, J9, J10, J12	5		87898-0204	Molex	Header, 2.54 mm, 2x1, Gold, R/A, SMT	Header, 2.54 mm, 2x1, R/A, SMT
J6	1		TSM-103-01-L-SV	Samtec	Header, 100mil, 3x1, Gold, SMT	Samtec_TSM-103-01-X-SV

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J7	1		15-91-2040	Molex	Header, 100mil, 2x2, Tin, SMT	2x2 100mil Tin Header
J8	1		TSM-103-01-L-DV	Samtec	Header, 2.54mm, 3x2, Gold, SMT	Header, 2.54mm, 3x2, SMT
J11	1		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
L1, L3, L4, L6	4	300 ohm	742792641	Würth Elektronik	Ferrite Bead, 300 ohm @ 100 MHz, 2 A, 0603	0603
L2, L5	2	250uH	744272251	Würth Elektronik	Coupled inductor, 250 uH, A, 0.035 ohm, SMD	8.7x10mm
L7	1	3.3uH	XFL4020-332MEB	Coilcraft	Inductor, Shielded, Composite, 3.3 uH, 2.9 A, 0.03 ohm, SMD	4x2x4mm
L8	1	160nH	XAL5030-161MEB	Coilcraft	Inductor, Shielded, Composite, 160 nH, 22.2 A, 0.00215 ohm, AEC-Q200 Grade 1, SMD	5.3x31.x5.5mm
Q1, Q2, Q3, Q4	4	100V	FDN8601	Fairchild Semiconductor	MOSFET, N-CH, 100V, 2.7A, SSOT-3	SSOT-3
Q5	1	150V	FDMS86252	Fairchild Semiconductor	MOSFET, N-CH, 150 V, 4.6 A, PQFN08A	PQFN08A
Q7	1	20 V	FM718TA	Diodes Inc.	Transistor, PNP, 20 V, 1.5 A, SOT-23	SOT-23
R1, R2, R3, R4, R5, R6, R7, R8	8	75.0	CRCW060375R0FKEA	Vishay-Dale	RES, 75.0 ohm, 1%, 0.1W, 0603	0603
R9, R10, R11, R12	4	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R13, R14, R15, R16	4	232k	CRCW0603232KFKEA	Vishay-Dale	RES, 232 k, 1%, 0.1 W, 0603	0603
R17	1	237k	CRCW0603237KFKEA	Vishay-Dale	RES, 237k ohm, 1%, 0.1W, 0603	0603
R18	1	9.53k	CRCW06039K53FKEA	Vishay-Dale	RES, 9.53 k, 1%, 0.1 W, 0603	0603
R19	1	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R20, R21, R22	3	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603	0603
R23	1	27.4k	RC0603FR-0727K4L	Yageo America	RES, 27.4 k, 1%, 0.1 W, 0603	0603
R24, R29	2	63.4	CRCW060363R4FKEA	Vishay-Dale	RES, 63.4 ohm, 1%, 0.1W, 0603	0603
R25	1	90.9	CRCW060390R9FKEA	Vishay-Dale	RES, 90.9, 1%, 0.1 W, 0603	0603
R26	1	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R27	1	249	CRCW0603249RFKEA	Vishay-Dale	RES, 249, 1%, 0.1 W, 0603	0603
R28	1	1.21k	CRCW06031K21FKEA	Vishay-Dale	RES, 1.21 k, 1%, 0.1 W, 0603	0603
R30	1	1.00k	CRCW20101K00FKEF	Vishay-Dale	RES, 1.00 k, 1%, 0.75 W, 2010	2010
R31	1	2k	3386P-1-202LF	Bourns	TRIMMER, 2k ohm, 0.5W, TH	375x190x375mil
R32	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
R33	1	39k	CRCW120639K0JNEA	Vishay-Dale	RES, 39 k, 5%, 0.25 W, 1206	1206
R34	1	133k	RT0603DRE07133KL	Yageo America	RES, 133 k, 0.5%, 0.1 W, 0603	0603
R35	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R36	1	75	CRCW201075R0JNEF	Vishay-Dale	RES, 75, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
R37	1	4.99k	RT0603DRE074K99L	Yageo America	RES, 4.99 k, 0.5%, 0.1 W, 0603	0603
R38	1	0.02	CSRN2010FK20L0	Stackpole Electronics Inc	RES, 0.02, 1%, 1 W, 2010	2010
R39	1	5.23	CRCW08055R23FKEA	Vishay-Dale	RES, 5.23, 1%, 0.125 W, 0805	0805
R40	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R41, R63	2	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603
R42	1	499	RT0603DRE07499RL	Yageo America	RES, 499, 0.5%, 0.1 W, 0603	0603
R43	1	71.5k	RT0603DRE0771K5L	Yageo America	RES, 71.5 k, 0.5%, 0.1 W, 0603	0603
R44	1	4.42k	CRCW06034K42FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, 0603	0603
R45	1	2.61k	CRCW06032K61FKEA	Vishay-Dale	RES, 2.61 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R46	1	2.32k	CRCW06032K32FKEA	Vishay-Dale	RES, 2.32 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R47, R48	2	15	CRCW251215R0JNEG	Vishay-Dale	RES, 15, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512
R53	1	50	CRCW060350R0FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
R54	1	2.10k	CRCW06032K10FKEA	Vishay-Dale	RES, 2.10 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R55, R59	2	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R56	1	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R57	1	887	CRCW0603887RFKEA	Vishay-Dale	RES, 887, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R60	1	14.7k	CRCW060314K7FKEA	Vishay-Dale	RES, 14.7 k, 1%, 0.1 W, 0603	0603
R61	1	2.61k	CRCW06032K61FKEA	Vishay-Dale	RES, 2.61 k, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8	8	1x2	SPC02SYAN	Sullins Connector Solutions	Shunt, 100mil, Flash Gold, Black	Closed Top 100mil Shunt
T1	1	350 uH	7490220122	Würth Elektronik	Transformer, 350 uH, SMT	14.7x18.29mm
T2	1	30uH	750317065	Würth Elektronik	Transformer, 30 uH, SMT	32.45x27.03mm
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27	24		5019	Keystone	Test Point, Miniature, SMT	Test Point, Miniature, SMT
TP11, TP12, TP13	3	SMT	5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Minature
U1	1		TPS2373-3RGWR	Texas Instruments	High-Power PoE PD Interface with Advanced Startup, RGW0020B (VQFN-20)	RGW0020B
U2	1		LM51551QDSSRQ1	Texas Instruments	Automotive Grade 2.2-MHz Wide Input Non-synchronous Boost Controller, DSS0012C (WSO-12)	DSS0012C
U3	1		FOD817AS	Fairchild Semiconductor	Optocoupler, 5 kV, 80-160% CTR, SMT	DIP-4L Gullwing
U4	1		TL431LIAIDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ0003A
D6, D7, D8, D9	0	100V	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R62	0	10.2k	CRCW060310K2FKEA	Vishay-Dale	RES, 10.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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