

**Bill of materials**
**Table 1. AEK-POW-PDUMINI bill of materials**

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	6	C1, C7, C13, C19, C25, C41	100nF	0805 - 100V - X7R Class II	WE	885012207128
2	4	C2, C3, C32, C33	10uF	1206 - 50V - X5R Class II, 1206 - 50V - X5R	WE	885012108022
3	2	C4, C37	220nF	0603 - 50V - X7R Class II	WE	885012206125
4	1	C5	1uF	0603 - 25V - X7R Class II	WE	885012206076
5	7	C6, C9, C12, C15, C18, C24, C40	100nF	0603 - 50V - X7R Class II	WE	885012206095
6	4	C8, C14, C20, C26	1nF	0603 - 50V - X7R Class II	WE	885012206083
7	11	C10, C11, C16, C17, C22, C23, C28, C29, C30, C31, C42	10nF	0603 - 50V - X7R Class II	WE	885012206089
8	4	C21, C27, C38, C39	2.2uF	0805 - 25V - X7R Class II	WE	885012207079
9	2	C34, C36	47pF	0603 - 50V - NP0 Class I	WE	885012006055
10	1	C35	4.7nF	0603 - 50V - X7R Class II	WE	885012206087
11	1	C43	33nF	0603 - 50V - X7R Class II	WE	885012206092
12	10	C44, C45, C47, C48, C50, C51, C53, C54, C56, C57	100pF	0603 - 100V - X7R Class II	WE	885012206102
13	5	C46, C49, C52, C55, C58	470pF	0603 - 50V - X7R Class II	WE	885012206081
14	2	C59, C60	1uF	0805 - 50V - X7R Class II	WE	885012207103
15	1	CN1	Con 5P	2.54mm - 1 row - KK254 - Male	WE	61900511121
16	1	CN2	Con 2P	2.54mm - 1 row - KK254 - Male	WE	61900211121
17	1	CN3	103-40064TH	DIN 41612 Male 90°, type C, Part No. 103-40064TH	EPT	103-40064TH
18	1	D1	STPS340UY, SMB	Automotive power Schottky rectifier - 40V, 3A - Unidirectional	ST	<a href="#">STPS340UY</a>

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
19	8	D3, D6, D9, D11, D12, D14, D24, D57	BAT54WFILMY, SOT323	Automotive small signal Schottky diodes - 40V, 300mA - Unidirectional	ST	BAT54WFILMY
20	5	D4, D5, D7, D8, DIAG	Amber	0805 - Led Amber - 2V	WE	150080AS75000
21	4	D10, D13, D18, D19	STPS140AY, SMA	Automotive power Schottky rectifier, 40V 1A	ST	STPS140AY
22	1	D15	SM15T33AY, SMC	Automotive 1500 W TVS in SMC - 33VDC - Unidirectional	ST	SM15T33AY
23	1	D16	SM15T18AY, SMC	Automotive 1500 W TVS in SMC - 18VDC - Unidirectional	ST	SM15T18AY
24	14	D17, D21, D22, D23, OUT0, OUT1, OUT2, OUT3, OUT4, OUT5, OUT6, OUT7, OUT8, OUT9	Green	0805 - Led Green - 3.2V	WE	150080GS75000
25	1	D20	ESDCAN03-2BWY, SOT323	Automotive dual-line TVS in SOT323-3L for CAN bus	ST	ESDCAN03-2BWY
26	14	DI0, DI1, DI2, DI3, EM0_0, EM0_1, EM1_0, EM1_1, LED1, LED2, LH, LH_0, LH_1, STDBY	Yellow	0805 - Led Yellow - 2V	WE	150080YS75000
27	8	EN0, EN1, EN2, EN3, EN4, EN5, EN6, EN7	Blue	0805 - Led Blue - 3.2V	WE	150080BS75000
28	44	JP1, JP2, JP3, JP4, JP5, JP6, JP7, JP8, JP12, JP13, JP15, JP16, JP17, JP18, JP19, JP20, JP21, JP22, JP23, JP24, JP25, JP26, JP27, JP28, JP29, JP30, JP31, JP32, JP33, JP34, JP35, JP36, JP37, JP38, JP39, JP40, JP41, JP42, JP43, JP44, JP45, JP46, JP47, R96	0	0603_Jumper 2p Closed SMD, 0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ3GEY0R00V
29	2	JP9, JP14	Jumper 3p	THT Vertical 3 pins Header, Pitch 2.54 mm, Single Row	WE	61300311121
30	2	JP10, JP11	Jumper 2p Closed	2mm - WR-PHD 2.00 mm THT Pin	WE	62000211121

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
				Header Single Row, Vertical, 2p, Closed		
31	1	L1	51uH	WE-SLM SMT Common Mode Line Filter - 51uH	WE	744242510
32	1	P1	7464000	WP-PLUG REDCUBE Direct Plug Terminal, L14.3W14.3H18.1 mm, Red, 120A	WE	7464000
33	1	P2	7464100	WP-PLUG REDCUBE Direct Plug Terminal, L14.3W14.3H18.1 mm, Black, 120A	WE	7464100
34	4	P3, P4, P5, P6	7464200	WP-PLUG REDCUBE Direct Plug Terminal, L14.3W14.3H18.1 mm, Blue, 120A	WE	7464200
35	1	P7	Con 6p 5.08_green	WR-TBL Series 2425 Horizontal Entry Modular, THT, pitch 5.08mm, 06p	WE	691242510006
36	3	P8, P9, P10	Header 2p 2.54	2.54mm - WR-PHD Pin Header, THT, pitch 2.54mm, Single Row, Vertical, 2p	WE	61300211121
37	4	Q1, Q2, Q3, Q4	BC847	NPN Bipolar Transistor 45V 100mA	Nexperia	BC847
38	1	Q5	STR2N2VH5, SOT-23	N-channel 20 V, 0.025 $\Omega$ typ., 2.3 A STRIPFET™ H5 Power MOSFET in a SOT-23 package	ST	<a href="#">STR2N2VH5</a>
39	5	R1, R21, R41, R61, R75	330	0603 - $\pm 1\%$ - 0.125W	Panasonic	ERJ-H3EF3300V
40	1	R2	2K	0603 - $\pm 1\%$ - 0.2W	Panasonic	ERJP03F2001V
41	13	R3, R13, R14, R15, R16, R17, R18, R19, R20, R30, R31, R50, R51	22K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJ-UP3F2202V
42	29	R4, R5, R6, R7, R8, R26, R29, R32, R33, R34, R35, R36, R46, R49, R52, R53, R54, R55, R56, R68, R69, R82, R83, R109, R110, R111, R112, R113, R114	15K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJ-PA3F1502V

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
43	5	R9, R37, R57, R70, R84	2.7K	0603 - $\pm 1\%$ - 0.1W	Vishay	MCT06030C2701FP500
44	11	R10, R11, R38, R39, R58, R59, R71, R72, R85, R86, R155	11K	0603 - $\pm 1\%$ - 0.33W	Panasonic	ERJ-PA3F1102V
45	10	R12, R23, R40, R43, R60, R63, R73, R77, R87, R103	220	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJPA3F2200V
46	4	R22, R42, R62, R76	100	0603 - $\pm 1\%$ - 0.125W	Panasonic	ERJH3EF1000V
47	7	R24, R44, R64, R74, R78, R88, R117	4.7K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJPA3F4701V
48	4	R25, R45, R65, R79	120	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJPA3F1200V
49	18	R27, R28, R47, R48, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131	3.3K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJ-PA3F3301V
50	4	R66, R67, R80, R81	2.2K	0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ-3EKF2201V
51	12	R89, R116, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149	12K	0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ-3EKF1202V
52	2	R90, R154	10K	0603 - $\pm 1\%$ - 0.2W	Panasonic	ERJP03F1002V
53	3	R91, R95, R97	N.M.	603	N.A.	N.A.
54	2	R92, R93	60.4	0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ3EKF60R4V
55	1	R94	33K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJ-PA3F3302V
56	1	R98	3.9K	0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ3EKF3901V
57	6	R99, R100, R102, R104, R107, R108	1K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJPA3F1001V
58	1	R101	1.5K	0603 - $\pm 1\%$ - 0.25W	Panasonic	ERJ-PA3F1501V
59	2	R105, R106	22	0603 - $\pm 1\%$ - 0.125W	Panasonic	ERJH3EF22R0V
60	1	R115	4.3K	0603 - $\pm 1\%$ - 0.1W	Panasonic	ERJ-3EKF4301V
61	8	R132, R133, R134, R135, R136, R137, R138, R139	1.2K	0603 - $\pm 0.5\%$ - 0.25W	Panasonic	ERJ-UP3D1201V

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
62	3	R150, R151, R152	50	0603 - ±1% - 0.100W	Vishay	CRCW060350R0FKTA
63	1	R153	N.M.	603	N.A.	N.A.
64	1	R156	360K	0603 - ±1% - 0.1W	Panasonic	ERJ-3EKF3603V
65	2	R157, R158	200K	0603 - ±1% - 0.1W	Panasonic	ERJ-3EKF2003V
66	1	R159	150K	0603 - ±5% - 0.33W	Panasonic	ERJ-PA3J154V
67	1	U1	L99SP08TR, Tape and Reel	Smart octa P-channel for ultra-low current consumption automotive systems, Ron 1Ω	ST	L99SP08TR
68	2	U2, U3	VNF9D1M5QTR, PQFN	2-channel high-side driver with STi <sup>2</sup> Fuse protection for automotive power distribution applications, 27A and RON typ. 1.5 mΩ	ST	VNF9D1M5QTR
69	1	U4	VNF9D5SFTR, PQFN	2-channel high-side driver with STi <sup>2</sup> Fuse protection for automotive power distribution applications, 15A and RON typ. 5.9 mΩ	ST	VNF9D5SFTR
70	1	U5	VNF9Q20SFTR, PQFN	4-channel high-side driver with STi <sup>2</sup> Fuse protection for automotive power distribution applications, 6A and RON typ. 21.5 mΩ	ST	VNF9Q20SFTR
71	1	U6	SPSB0815-TR, QFN-32L WF	Automotive Power management IC with LIN and CAN-FD	ST	SPSB0815-TR
72	1	U7	VN7140AJTR, PowerSSO 16	High-side driver with MultiSense analog feedback for automotive applications, 28V and RON typ. 140 mΩ	ST	VN7140AJTR
73	1	U8	LDL40PURY, DFN 6L 2X2X 0.75 PITCH0.65 AG	200 mA low dropout LDO	ST	LDL40PURY
74	2	for blister	60900213421	WR-PHD 2.54 mm Multi-Jumper Jumper with Test Point	WE	60900213421

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75	4	for blister	970150365	WA-SPAll Plastic Spacer Stud, metric, internal/ internal	WE	970150365
76	4	for blister	97790603211	WA-SCRW Pan Head Screw w. cross slot M3	WE	97790603211
77	1	for blister	61900211621	WR-WTB 2.54 mm Female Terminal Housing	WE	61900211621
78	1	for blister	61900511621	WR-WTB 2.54 mm Female Terminal Housing	WE	61900511621
79	8	for blister	61900113722DEC	WR-WTB 2.54 mm Female Crimp Contact	WE	61900113722DEC
80	2	for blister	60800213421	WR-PHD 2.00 mm Multi-Jumper Jumper with Test Point	WE	60800213421
81	2	for blister	74640016	WP-PLUG REDCUBE Cable Connector for Direct PLUG Terminal	WE	74640016
82	4	for blister	7464006	WP-PLUG REDCUBE Cable Connector for Direct PLUG Terminal	WE	7464006

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