

Design name: TEA1936x Multi Standard 27W Mobile Charging v2.

Board-ID: TEA1936xDB1475

PCB nr.: 0000-000-39982

## Bill of materials

2017-11-16

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Item Number	Mounted	Unique Part name	Part Reference	Description	Manufacturer	Manufacturer Part Number	Remarks	Supplier	Supplier Code	PCB Footprint
1		CAPP_SAX_15U0_400V_20T_ALU_THT_KM	C1	Capacitor; 15 µF; 20 %; 400 V; ALU; TH1	Samxon	EKM156M2G16R1		NXP	Customer Delivery	CAPPRDV350W60D850H1700TB_ISO
2		CAPP_RUB_10U0_100V_20T_ALU_THT_YXJ	C3	Capacitor; 10 uF; 20 %; 100 V; ALU; TH1	Rubycon Corp	100YXJ10M5X11		Digi-Key	1189-2150-ND	CAPPRDV200W50D550H1250TB_ISO
3		CAPP_ILC_820U_16V0_20T_ALU_THT_AVG	C4	Capacitor; 820 µF; 20 %; 16 V; ALU; TH1	Illinois Capacitor Inc	827AVG016MFBJ		Digi-Key	1572-1520-ND	CAPPRDV350W60D850H1350TB_HN_ISO
4		CAPN_TDK_100N_50V0_10T_X7R_0402_C	C5	Capacitor; 100 nF; 10 %; 50 V; X7R; 0402	TDK	C1005X7R1H104K050B		Farnell	2354332	CAPC1005X55X62Y61C90N
5		CAPN_TDK_4U70_16V0_10T_X5R_0603	C6	Capacitor; 4.7 µF; 10 %; 16 V; X5R; 0603	TDK Industrial Co Ltd	C1608X5R1C475K080AC		Farnell	2211173	CAPC1608X95X100Y95C160N
6		CAPN_TDK_4U70_16V0_10T_X5R_0603	C7	Capacitor; 4.7 µF; 10 %; 16 V; X5R; 0603	TDK Industrial Co Ltd	C1608X5R1C475K080AC		Farnell	2211173	CAPC1608X95X100Y95C160N
7		CAPN_XXX_1U00_16V0_10T_X7R_0603	C10	Capacitor; 1 µF; 10 %; 16 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X95Y100C160N
8		CAPN_KME_680P_630V_10T_X7R_1206	C12	Capacitor; 680 pF; 10 %; 630 V; X7R; 1206	Kemet	C1206C681KBRAC		Digi-Key	399-5583-1-ND	CAPC3216X175X180Y115C300N
9		CAPN_XXX_1N00_50V0_10T_X7R_0603	C14	Capacitor; 1 nF; 10 %; 50 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X95Y100C160N
10		CAPN_TDK_470N_50V0_10T_X7R_0603	C15	Capacitor; 470 nF; 10 %; 50 V; X7R; 0603	TDK	C1608X7R1H474K		Mouser	810-C1608X7R1H474K	CAPC1608X90X95Y100C160N
11		CAPN_XXX_1N00_50V0_10T_X7R_0603	C17	Capacitor; 1 nF; 10 %; 50 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X95Y100C160N
12		CAPN_XXX_22P0_50V0_5T0_C0G_0603	C19	Capacitor; 22 pF; 5 %; 50 V; C0G; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X100Y95C160N
13		CAPN_XXX_470P_100V_10T_X7R_0603	C20	Capacitor; 470 pF; 10 %; 100 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X100Y95C160N
14	NM	CAPN_KME_6N80_630V_10T_X7R_0805	C22	Capacitor; 6.8 nF; 10 %; 630 V; X7R; 0805	Kemet Electronics Corp	C0805C682KBRAC		Digi-Key	399-6739-1-ND	CAPC2013X140X145Y115C180N
15		CAPP_SAX_15U0_400V_20T_ALU_THT_KM	C29	Capacitor; 15 µF; 20 %; 400 V; ALU; TH1	Samxon	EKM156M2G16R1		NXP	Customer Delivery	CAPPRDV350W60D850H1700TB_ISO
16		CAPP_ILC_820U_16V0_20T_ALU_THT_AVG	C30	Capacitor; 820 µF; 20 %; 16 V; ALU; TH1	Illinois Capacitor Inc	827AVG016MFBJ		Digi-Key	1572-1520-ND	CAPPRDV350W60D850H1350TB_ISO
17		CAPP_SAX_15U0_400V_20T_ALU_THT_KM	C33	Capacitor; 15 µF; 20 %; 400 V; ALU; TH1	Samxon	EKM156M2G16R1		NXP	Customer Delivery	CAPPRDV350W60D850H1700TB_ISO
18		CAPP_NCN_10U0_35V0_20T_ALU_THT_VR	C36	Capacitor; 10 uF; 20 %; 35 V; ALU; TH1	Nichicon Corp	UVR1V100MDD6T		Digi-Key	493-12804-1-ND	CAPPRDV200W50D550H1250TB_P254_ISO
19		CAPN_XXX_10N0_50V0_10T_X7R_0402	C38	Capacitor; 10 nF; 10 %; 50 V; X7R; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1005X55X62Y61C90N
20	NM	CAPN_XXX_6P80_50V0_5T0_C0G_0603	C39	Capacitor; 6.8 pF; 5 %; 50 V; C0G; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X100Y95C160N
21		CAPN_TDK_4U70_16V0_10T_X5R_0603	C41	Capacitor; 4.7 µF; 10 %; 16 V; X5R; 0603	TDK Industrial Co Ltd	C1608X5R1C475K080AC		Farnell	2211173	CAPC1608X95X100Y95C160N
22		CONT_AMN_12401548E4-2A_24PFR_ULU	CN1	Receptacle; R/A; USB 3.1 Type-C	Amphenol	12401548E4#2A		Digi-Key	12401548E4#2ACT-ND	CONX_AMN_12401548E4-2A_24PFR_ULU_ISO
23		CAPN_MUR_100P_250V_10T_B_THT_X1Y2	CY1	Capacitor; 100 pF; 10 %; 250 VAC; B; THT; X1/Y2	muRata Electronics	DE2B3KY101KA2BM01F		Farnell	2494160	CAPPRDV1000W60L700T500H1000TB_ISO
24		DITVS_NEX_PTVS16V51UR_SOD123W	D1	TVS; Uni.; 16 V; Max. 15.4 A @ 26.0 V	NeXperia USA Inc	PTVS16V51UR		Farnell	1829241	SODFL3517X110X108Y92C320N
25		DITVS_NEX_PESD15V52UT_SOT23	D2	ESD; Uni.; 15 V; Max. 5 A; 30 kV	NeXperia USA Inc	PESD15V52UT		Farnell	8737452	SOT95P230X110-3X100Y60C230N
26		DIO_FCH_S2M_DO214AA	D3	Diode; 1 kV; 2 A	Fairchild Semiconductor Inc	S2M		Farnell	9843876	DIOM5336X265X230Y215C430N
27		DIO_NEX_BAS521_SOD523	D4	Diode; 300 V; 250 mA	NeXperia USA Inc	BAS521		Farnell	8734410	SODFL1608X65X53Y42C160N
28		DIO_NXP_BAS316_S7C6	D5	Diode; 100 V; 250 mA	NXP	BAS316		Farnell	8734275	SOD2513X110X50Y90C260N
29	NM	DIO_NEX_BAS521_SOD523	D6	Diode; 300 V; 250 mA	NeXperia USA Inc	BAS521		Farnell	8734410	SODFL1608X65X53Y42C160N
30		DIO_NEX_BAS321_SOD323	D15	Diode; 200 V; 250 mA	NeXperia USA Inc	BAS321		Farnell	8734283	SOD2513X110X50Y90C260N
31	NM	DIO_TAS_S1ML_SMA	D16	Diode; 1 kV; 1 A	Taiwan Semi.	S1ML		Farnell	1559155	SODFL3618X143X122Y112C310N
32		DITVS_NEX_PESD5V2S2UT_SOT23	D17	ESD; Uni.; 5.2 V; Max. 15 A; 30 kV	NeXperia USA Inc	PESD5V2S2UT		Farnell	8737762	SOT95P230X110-3X100Y60C230N
33	NM	DIO_TAS_S1ML_SMA	D18	Diode; 1 kV; 1 A	Taiwan Semi.	S1ML		Farnell	1559155	SODFL3618X143X122Y112C310N
34		DIO_VIS_AS1PM_DO220AA	D21	Diode; 1 kV; 1.5 A	Vishay	AS1PM		Farnell	2078106	DIO_VIS_AS1PM_DO-220AA
35		DIO_VIS_AS1PM_DO220AA	D22	Diode; 1 kV; 1.5 A	Vishay	AS1PM		Farnell	2078106	DIO_VIS_AS1PM_DO-220AA
36		DIO_VIS_AS1PM_DO220AA	D23	Diode; 1 kV; 1.5 A	Vishay	AS1PM		Farnell	2078106	DIO_VIS_AS1PM_DO-220AA
37		DIO_VIS_AS1PM_DO220AA	D24	Diode; 1 kV; 1.5 A	Vishay	AS1PM		Farnell	2078106	DIO_VIS_AS1PM_DO-220AA
38		DITVS_NEX_PESD5V2S2UT_SOT23	D25	ESD; Uni.; 5.2 V; Max. 15 A; 30 kV	NeXperia USA Inc	PESD5V2S2UT		Farnell	8737762	SOT95P230X110-3X100Y60C230N
39		DIO_NEX_BAS521_SOD523	D26	Diode; 300 V; 250 mA	NeXperia USA Inc	BAS521		Farnell	8734410	SODFL1608X65X53Y42C160N
40		FUS_MUC_MCPMP2A250V_THT_MCPMP	F1	Fuse; 250 VAC; 2 A; Slow Blow	Multicomp	MCPMP2A250V		Farnell	1566019	FUSADH1016W64L760D318TB_VP508_ISO
41		FBEAD_MUR_BLM21PG220SH1_0805	FB2	FBEAD; 0.009 O; 6 A; 0805	muRata Electronics	BLM21PG220SH1		Farnell	1515658	INDC2013X105X145Y115C180N
42	NM		J1	Clip for inlet; L	unknown	unknown		NXP	Customer Delivery	CILP_MAINS_4X4MM_2P_ISO
43	NM		J2	Clip for inlet; N	unknown	unknown		NXP	Customer Delivery	CILP_MAINS_4X4MM_2P_ISO
44			L1	Inductor CM; EE7.0; Cu=0.27mm; 18T:18T	NXP		Temporary place APS-14287-NL	NXP	Customer Delivery	INDICB_NXP_TEA1936NDB1440_ISO
45		INDIC_WUR_744772121_THT	L3	Inductor; 120 µH; 850 mA	NXP / Wurth electronic	TEA19363DB1475 (L3) / 744772121		NXP / Digi-Key	Customer Delivery / 732-3774-ND	INDRDV500W70D830H1000TB_ISO
46		MFN_TAS_TSM70N750_DPAK	Q1	MOSFET-N; 700 V; 6 A	Taiwan Semiconductors	TSM70N750CP		Digi-Key	TSM70N750CP ROGCT-ND	DPAK_TAS_TO-252
47		MFN_INF_BSC028N06NS_TDS0N8	Q2	MOSFET-N; 60 V; 100 A	Infineon Technologies	BSC028N06NS		Farnell	2432704	POWERDFN8_INF_PG-TDS0N-8_SMT
48		MFN_NEX_PSMN2R4-30MLD_LFPAK33	Q3	MOSFET-N; 30 V; 70 A	NeXperia USA Inc	PSMN2R4-30MLD		Farnell	2400976	LFPAK33_NXP_SOT1210
49		RES_XXX_10R0_1T0_W063_0603	R5	Resistor; 10 O; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
50		RES_PAN_442K_1T0_OW66_1206	R7	Resistor; 442 kO; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJ08F4423V		Farnell	2327237	RESC3116X70X170Y110C290N
51		RES_XXX_5K10_1T0_W063_0402	R8	Resistor; 5.1 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
52		RES_XXX_1K00_1T0_W063_0402	R9	Resistor; 1 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
53		RES_XXX_330R_1T0_W063_0402	R11	Resistor; 330 O; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
54		RES_XXX_10R0_1T0_OW25_1206	R13	Resistor; 10 O; 1 %; 250 mW; 1206	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC3216X84X175Y105C300N
55		RES_PAN_10R0_1T0_OW10_0402	R14	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RFK10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
56		RES_XXX_2K20_1T0_W063_0603	R15	Resistor; 2.2 kO; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
57		RES_XXX_100R_1T0_OW10_0603	R16	Resistor; 100 O; 1 %; 100 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
58		RES_XXX_4R70_1T0_OW10_0603	R17	Resistor; 4.7 O; 1 %; 100 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
59		RES_PAN_0R62_1T0_OW25_0805	R18	Resistor; 0.62 O; 1 %; 250 mW; 0805	Panasonic	ERJ5QFR62V		Farnell	2381088	RESC2013X70X140Y105C190N

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Item Number	Mounted	Unique Part name	Part Reference	Description	Manufacturer	Manufacturer Part Number	Remarks	Supplier	Supplier Code	PCB Footprint
60		RES_PAN_0R56_1T0_0W25_0805	R19	Resistor; 0.56 O; 1 %; 250 mW; 0805	Panasonic	ERJ6QFR56V		Farnell	2381087	RESC2013X70X140Y105C190N
61		RES_XXX_1K00_1T0_W063_0603	R21	Resistor; 1 kO; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
62		RES_XXX_5K10_1T0_W063_0603	R22	Resistor; 5.1 kO; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
63		RES_PAN_84K5_1T0_0W66_1206	R24	Resistor; 84.5 kO; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3116X70X170Y110C290N
64		RES_XXX_110K_1T0_W063_0603	R25	Resistor; 110 kO; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
65		RESNTC_EPC_B57321V2473J060_0603	R26	Res.; NTC; 47 kO; 5 %; 180 mW; 2980 K	Epcos	B57321V2473J060		Farnell	1299915	RESC1608X90X95Y90C160N
66	NM	RES_XXX_1K00_1T0_W063_0603	R29	Resistor; 1 kO; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
67		RES_PAN_0R01_1T0_1W00_1206_ERJ	R31	Resistor; 0.01 O; 1 %; 1 W; 1206	Panasonic	ERJ8CWF0R010V		Farnell	2145283	RESC3216X84X175Y105C300N
68		RES_VIS_1M00_1T0_W063_0402_CRCW	R39	Resistor; 1 MO; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
69		RES_PAN_430R_1T0_0W10_0402	R50	Resistor; 430 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF4300X		Farnell	2302594	RESC1005X40X62Y58C94N
70		RES_PAN_10R0_1T0_0W10_0402	R51	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
71		RES_PAN_10R0_1T0_0W10_0402	R52	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
72		RES_XXX_191K_1T0_W063_0402	R53	Resistor; 191 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
73		RES_XXX_43K0_1T0_W063_0402	R54	Resistor; 43 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
74		RES_PAN_150R_1T0_0W10_0402	R55	Resistor; 150 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF1500X		Farnell	2302544	RESC1005X40X62Y58C94N
75	NM	RES_PAN_84K5_1T0_0W66_1206	R56	Resistor; 84.5 kO; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3116X70X170Y110C290N
76		RES_XXX_0R00_JMP_W063_0402	R57	Resistor; 0 O; Jumper; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
77	NM	RES_XXX_15K0_1T0_W063_0402	R58	Resistor; 15 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
78	NM	RES_VIS_1M00_1T0_W063_0402_CRCW	R59	Resistor; 1 MO; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
79		RES_XXX_6K80_1T0_W063_0402	R60	Resistor; 6.8 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
80		RES_PAN_10R0_1T0_0W10_0402	R61	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
81		RES_PAN_27R0_1T0_0W50_0805	R62	Resistor; 27 O; 1 %; 500 mW; 0805	Panasonic	ERJP6WF27R0V		Farnell	2253868	RESC2013X75X145Y100C190N
82	NM	RES_VIS_1M00_1T0_W063_0402_CRCW	R63	Resistor; 1 MO; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
83		RES_PAN_84K5_1T0_0W66_1206	R64	Resistor; 84.5 kO; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3116X70X170Y110C290N
84		RES_PAN_10R0_1T0_0W10_0402	R69	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
85		RES_PAN_10R0_1T0_0W10_0402	R70	Resistor; 10 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X40X62Y58C94N
86		RES_PAN_0R00_JMP_0W10_0402	R71	Resistor; 0 O; Jumper; 100 mW; 0402	Panasonic	ERJ2GEOR00X		Farnell	2059190	RESC1005X40X62Y58C94N
87	NM	RES_XXX_0R00_JMP_W063_0402	R72	Resistor; 0 O; Jumper; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
88		RESNTC_EPC_B57321V2473J060_0603	R73	Res.; NTC; 47 kO; 5 %; 180 mW; 2980 K	Epcos	B57321V2473J060		Farnell	1299915	RESC1608X90X95Y90C160N
89		ICL_AMM_SL05 5R001-A_THT	RT1	ICL; 5 O; 25 %; 1 A; 6 mm	Ametherm Inc	SL05 5R001-A		Digi-Key	570-1262-ND	VARRDV510W50P180L600T350H1050TB_ISC
90		RESNTC_VIS_NTCLIE100E3104J_THT	RT2	Resistor; NTC; 100 kO; 5 %; 100 mW; 4190 K	Vishay	NTCLIE100E3104JB0	High against transformer and insulate	Farnell	1187033	VARRRV254W60L380T300H900TB_ISO
91			T1	Transformer; RM7; 780 µH	NXP	TR1077	Insulate on the bottom side	NXP	Customer Delivery	TRFIC_NXP_PINSHINE-RM7_NO11_ISO
92			U1	TEA19051B; HVSON16	NXP	TEA19051B (HVSON16)		NXP	Customer Delivery	SON65P350X550X100-17X95Y35C330N
93			U2	Sync. Rec. Cntrl.; TEA1999	NXP	TEA1999		NXP	Customer Delivery	SOT95P275X110-6X115Y50C260N
94			U10	SMTP Cntrl; TEA19361	NXP	TEA19361		NXP	Customer Delivery	SOIC127P600X175-10X160Y60C540N
95	NM	IC_ONS_NCP431ACSN_SOT23	U11	Volt Regulator; Adj.; 1 %; 100 mA	ON Semiconductors	NCP431ACSN1G		Farnell	2318605	SOT95P230X110-3X60Y95C230N
96		OPTTRN_VIS_TCLT1008_SOP4L	U3	Optocoupler; NPN; 70 V; 50 mA	Vishay	TCLT1008		Farnell	8310742	SOIC254P1015X230-4X65Y185C940N
97	NM	CONT_SAM_HTMS-104-01-G-S_4PMS_L	X4	Header; Straight; 1x4-way; 1.27 mm; Gold Plated	Samtec Inc	HTMS-104-01-G-S		Farnell	1936213	CONT_SAM_HTMS-104-01-G-S_4PMS_L_AT1_ISO