

Design name: TEA1936x USB PD 45W Mobile Charging Adapter.
Board-ID: TEA1936xDB1521
PCB no.: 0000-000-41551

Bill of materials

02-08-2017
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Item Number	Mounted	Unique Part name	Part Reference	Description	Manufacturer	Manufacturer Part Number	Remarks	Supplier	Supplier Code	PCB Footprint
1			C1	Capacitor; 22 µF; 20 %; 400 V; ALU; D13xL17mm	SAMXON	EKM226M2GJ17RR		NXP	Customer Delivery	CAPPRDV500W60D1350H1850TB_ISO
2			C3	Capacitor; 10 uf; 20 %; 100 V; ALU; THT	Rubycon	100YXJ10M5X11		Digi-Key	1189-2150-ND	CAPPRDV200W50D0550H1250TB_ISO
3			C4	Capacitor; 560 uF; 20 %; 25 V; ALU; THT	Kemet	A750M5567M1EAAE015		Digi-Key	399-13693-ND	CAPPRDV500W60D1050H1300TB_HN_ISO
4		CAPN_TDK_100N_50V0_10T_X7R_0402_C	C5	Capacitor; 100 nF; 10 %; 50 V; X7R; 0402	TDK	C1005X7R1H104K050BB		Farnell	2354332	CAPC1005X55X62Y61C90N
5			C6	Capacitor; 4.7 µF; 10 %; 25 V; X5R; 0603	TDK	C1608X5R1E475K080AC		Farnell	2525101	CAPC1608X95X100Y95C160N
6			C7	Capacitor; 4.7 µF; 10 %; 25 V; X5R; 0603	TDK	C1608X5R1E475K080AC		Farnell	2525101	CAPC1608X95X100Y95C160N
7		CAPN_XXX_1U00_25V0_10T_X7R_0603	C10	Capacitor; 1 µF; 10 %; 25 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X95Y100C160N
8			C12	Capacitor; 2.2 nF; 10 %; 630 V; X7R; 1206	Kemet	C1206C222KBRAC		Farnell	2676446	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			C20	Capacitor; 470 pF; 10 %; 100 V; X7R; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1608X95X100Y95C160N
14	NM		C22	Capacitor; 6.8 nF; 10 %; 630 V; X7R; 0805	Kemet	C0805C682KBRACU		Digi-Key	399-6739-1-ND	CAPC2013X145X115Y145C180N
15			C29	Capacitor; 22 µF; 20 %; 400 V; ALU; D13xL17mm	SAMXON	EKM226M2GJ17RR		NXP	Customer Delivery	CAPPRDV500W60D1350H1850TB_ISO
16			C30	Capacitor; 560 uF; 20 %; 25 V; ALU; THT	Kemet	A750M5567M1EAAE015		Digi-Key	399-13693-ND	CAPPRDV500W60D1050H1300TB_ISO
17			C33	Capacitor; 22 µF; 20 %; 400 V; ALU; D13xL17mm	SAMXON	EKM226M2GJ17RR		NXP	Customer Delivery	CAPPRDV500W60D1350H1850TB_ISO
18			C36	Capacitor; 10 uF; 20 %; 35 V; ALU; THT	Nichicon	UVR1V100MDD6TP		Digi-Key	493-12804-1-ND	CAPPRDV150W45D450H1400TB_P254_ISO
19		CAPN_XXX_3N30_50V0_10T_X7R_0402	C38	Capacitor; 3.3 nF; 10 %; 50 V; X7R; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	CAPC1005X55X62Y61C90N
20	NM		C39	Capacitor; 2.2 pF; 0.1 pF; 250 V; C0G; 0805	Murata	GQM2195C2E2R2BB12D		Digi-Key	490-5285-1-ND	CAPC2012X95X145Y115C180N
21			C41	Capacitor; 10 µF; 10 %; 25 V; X5R; 0603	TDK	C1608X5R1E106M080AC		Digi-Key	445-9015-1-ND	CAPC1608X95X100Y95C160N
22			CN1	Conn.; USB 3.1 Type-C Receptacle R/A	Amphenol	12401548E4#2A		Digi-Key	12401548E4#2ACT-ND	CONT_APA_12401548E4-2A_28PFR_ULU_ISO
23			CX1	Capacitor; 47 nF; 20 %; 630 V; PP; X2	Vishay	BFC233920473	BFC233924473 (long leads) / BFC233924473-ND	Digi-Key	BC2585-ND	CAPRRV750W60L1030T530H1060TB_ISO
24			CY1	Capacitor; 220 pF; 10 %; 250 VAC; B; THT; X1/Y2	Murata	DE2B3KY221KA2BM01F		Farnell	2494164	CAPRDV1000W60L900T800H1300TB_NXP_ISO
25			D1	Diode; TVS; Uni; 24 V; 400 W	NXP	PTVS24V51UR		Farnell	1829247	SODFL3517X110X108Y92C320N
26			D2	Diode; ESD Prot.; 24 V; 3 A	NXP	PESD24V52UT		Farnell	8737509	SO795P230X110-3X100Y60C230N
27			D3	Diode; 1 kV; 2A	Fairchild	S2M		Farnell	9843876	DIOM5336C26S230Y215C430N
28		DIO_TAS_S1ML_SMA	D4	Diode; 1 kV; 1 A	Taiwan Semi.	S1ML		Farnell	1559155	SODFL3618X143X122Y112C310N
29		DIO_NXP_BAS316_SC76	D5	Diode; 100 V; 250 mA	NXP	BAS316		Farnell	8734275	SOD2513X110X50Y90C260N
30			D15	Diode; 200 V; 250 mA	NXP	BAS321		Farnell	8734283	SOD2513X110X50Y90C260N
31	NM	DIO_TAS_S1ML_SMA	D16	Diode; 1 kV; 1 A	Taiwan Semi.	S1ML		Farnell	1559155	SODFL3618X143X122Y112C310N
32	NM	DIO_TAS_S1ML_SMA	D18	Diode; 1 kV; 1 A	Taiwan Semi.	S1ML		Farnell	1559155	SODFL3618X143X122Y112C310N
33			D21	Diode; 1 kV; 3 A	Vishay	AS3PM-M3/86A		Mouser	625-AS3PM-M3/86A	TO277A_VIS_SMP_C_SMT
34			D22	Diode; 1 kV; 3 A	Vishay	AS3PM-M3/86A		Mouser	625-AS3PM-M3/86A	TO277A_VIS_SMP_C_SMT
35			D23	Diode; 1 kV; 3 A	Vishay	AS3PM-M3/86A		Mouser	625-AS3PM-M3/86A	TO277A_VIS_SMP_C_SMT
36			D24	Diode; 1 kV; 3 A	Vishay	AS3PM-M3/86A		Mouser	625-AS3PM-M3/86A	TO277A_VIS_SMP_C_SMT
37			D25	Diode; ESD Prot.; 30 kV; 3 A	NXP	PESD5V2S2UT		Farnell	8737762	SO795P230X110-3X100Y60C230N
38		FUS_MUC_MCPMP2A250V_THT_MCPMP	F1	Fuse; 250 V; 2 A; Slow Blow	Multicomp	MCPMP2A250V	Mount vertical	Farnell	1566019	FUSADH1016W64L760D318TB_VP508_ISO
39			FB2	FBEAD; 0.009 O; 6 A; 0805	Murata	BLM21PG220SH1D		Farnell	1515658	INDC2013X105X145Y115C180N
40			FB3	FBEAD; K5B RH 3.5 x 4.5 x 0.8	King Core Electronics Inc.	K5B RH 3.5 x 4.5 x 0.8 - T52	www.100y.com.tw	www.kingcore.com.tw	K5B RH 3.5 x 4.5 x 0.8 - T52	FBEAD_KCE_K5B-RH-35-45-08-T52_P0254
41	NM		J1	Clip for inlet; L	unknown	unknown		NXP	Customer Delivery	CILP_MAINS_4X4MM_2P_ISO
42	NM		J2	Clip for inlet; N	unknown	unknown		NXP	Customer Delivery	CILP_MAINS_4X4MM_2P_ISO
43			L1	Inductor CM; 2x 1.6 mH	NXP	T8x4x4 H5C3 TDK	Temporary place APS-14095-NL	NXP	Customer Delivery	INDICB_NXP_TEA1936NDB1440_ISO
44			L3	Inductor; 120 uH; 850 mA; 0.22 Ohm	Würth	744772121		Digi-Key	732-3774-ND	INDRDV500W70D830H1000TB_ISO
45			Q1	MOSFET-N; 800 V; 0.28 O; 17 A	Infineon	IPD80R280P7ATMA1		Mouser	726-IPD80R280P7ATMA1	DPAK_TAS_TO_252
46			Q2	MOSFET-N; 100 V; 90 A; 0.006 Ohm; TDSO	Infineon	BSC060N10N53GATMA1		Digi-Key	BSC060N10N53GATMA1CT-ND	TO127P600X120-5X60Y162C372N
47			Q3	MOSFET-N; 30 V; 2.4 mO; 70 A	NXP	PSMN2R4-30MLD		Farnell	2400976	TO65P330X90-5X105Y45C220N
48		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
49			R7	Resistor; 100 kO; 1 %; 660 mW; 1206	Panasonic	ERJPO8F1003V		Farnell	1750864	RESC3216X84X175Y105C300N
50			R8	Resistor; 5.1 kO; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
51		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
52		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
53		RES_XXX_0R00_JMP_OW25_1206	R13	Resistor; 0 O; Jumper; 250 mW; 1206	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC3216X84X175Y105C300N
54			R14	Resistor; 22 O; 1 %; 100 mW; 0402	Panasonic	ERJ2RKf22ROX		Farnell	2302453	RESC1005X50X60Y55C100N
55		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
56			R16	Resistor; 100 O; 1 %; 100 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
57			R17	Resistor; 4.7 O; 1 %; 100 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
58			R18	Resistor; 0.43 O; 1 %; 250 mW; 0805	Panasonic	ERJSE6QFR43V		Farnell	2381083	RESC2013X84X145Y95C200N
59			R19	Resistor; 0.43 O; 1 %; 250 mW; 0805	Panasonic	ERJSE6QFR43V		Farnell	2381083	RESC2013X84X145Y95C200N
60		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

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61		RES_XXX_3K30_1T0_W063_0603	R22	Resistor; 3.3 kΩ; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
62			R24	Resistor; 84.5 kΩ; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3216X84X175Y105C300N
63			R25	Resistor; 120 kΩ; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F1203V		Farnell	1750865	RESC3216X84X175Y105C300N
64			R26	Resistor; NTC; 47 kΩ; 5 %; 180 mW; 3980 K	Epcos	B57321V2473J060		Farnell	1299915	RESC1608X84X100Y80C170N
65	NM	RES_XXX_1K00_1T0_W063_0603	R29	Resistor; 1 kΩ; 1 %; 63 mW; 0603	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1608X84X100Y80C170N
66			R31	Resistor; 0.011 Ω; 1 %; 1 W; 1206	Panasonic	ERJ8CWFR011V		Farnell	2145284	RESC3216X84X175Y105C300N
67		RES_VIS_1M00_1T0_W063_0402_CRCW	R39	Resistor; 1 MΩ; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
68			R50	Resistor; 120 Ω; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF1200X		Farnell	2302535	RESC1005X50X60Y55C100N
69			R53	Resistor; 178 kΩ; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
70			R54	Resistor; 24.3 kΩ; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X50X60Y55C100N
71			R55	Resistor; 150 Ω; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF1500X		Farnell	2302544	RESC1005X50X60Y55C100N
72	NM		R56	Resistor; 84.5 kΩ; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3216X84X175Y105C300N
73	NM	RES_VIS_1M00_1T0_W063_0402_CRCW	R59	Resistor; 1 MΩ; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
74			R60	Resistor; 3.3 kΩ; 1 %; 63 mW; 0402	Any Manufacturer	Any Man. Part Number		Any Supplier	Any Supp. Code	RESC1005X40X62Y58C94N
75			R61	Resistor; 22 Ω; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF22R0X		Farnell	2302453	RESC1005X50X60Y55C100N
76			R62	Resistor; 100 Ω; 1 %; 500 mW; 0805	Panasonic	ERJP6WVF1000V		Farnell	2253883	RESC2013X84X145Y95C200N
77	NM	RES_VIS_1M00_1T0_W063_0402_CRCW	R63	Resistor; 1 MΩ; 1 %; 63 mW; 0402	Vishay	CRCW04021M00FKED		Farnell	1469667	RESC1005X40X62Y58C94N
78			R64	Resistor; 84.5 kΩ; 1 %; 660 mW; 500 V; 1206	Panasonic	ERJP08F8452V		Farnell	2312407	RESC3216X84X175Y105C300N
79			R69	Resistor; 10 Ω; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X50X60Y55C100N
80			R70	Resistor; 10 Ω; 1 %; 100 mW; 0402	Panasonic	ERJ2RKF10R0X		Farnell	2302417	RESC1005X50X60Y55C100N
81	NM		R71	Resistor; 0 Ω; Jumper; 100 mW; 0402	Panasonic	ERJ2GE0R00X		Farnell	2059190	RESC1005X50X60Y55C100N
82	NM		R72	Resistor; 0 Ω; Jumper; 100 mW; 0402	Panasonic	ERJ2GE0R00X		Farnell	2059190	RESC1005X50X60Y55C100N
83	NM		RT1	ICL 5 OHM 25% 1A 6MM	Ametherm	SL05 5R001-A		Digi-Key	570-1262-ND	VARRDV510W50P180L600T350H1050TB_ISO
84		RESNTC_VIS_NTCLE100E3104J_THT	RT2	Resistor; NTC; 100 kΩ; 5 %; 100 mW; 4190 K	Vishay	NTCLE100E3104JB0	High against transformer and insulate	Farnell	1187033	VARRRV254W60L380T300H900TB_ISO
86			T1	Transformer; RM8; 360 μH	NXP	RM8	Insulate on the bottom side	NXP	Customer Delivery	TRFIC_NXP_TEA1938DBxxxx-V1_RM8
87			U1	USB-PD Cntr.; TEA19031	NXP	TEA19031		NXP	Customer Delivery	SOIC127P600X175-10X160Y60C540N
88			U2	Sync. Rec. Cntrl.; TEA1993	NXP	TEA1993		NXP	Customer Delivery	SOT95P275X110-6X115Y50C260N
89			U10	SMTP Cntr; TEA19361	NXP	TEA19361		NXP	Customer Delivery	SOIC127P600X175-10X160Y60C540N
90	NM	IC_ONS_NCP431ACSN_SOT23	U11	Volt Regulator; 2.5V; 1%; 100mA	ON Semi.	NCP431ACSN1TG		Farnell	2318605	SOT95P237X111-3X105Y60C230N
91		OPTTRN_VIS_TCLT1008_SOP4L	U3	Optocoupler; NPN; 70 V; 50 mA	Vishay	TCLT1008		Farnell	8310742	SOIC254P1015X230-4X65Y185C940N
92	NM		X4	Header; Straight; 1x4-way; 1.27mm	Samtec	HTMS-104-01-G-S	order but not mount	Farnell	1936213	CONT_SAM_HTMS-104-01-G-S_4PMS_L_AT1_ISO