

TDAIO250P200-KIT Bill of Materials (BOM)

Designator	Qty	Value	Description	Part Number	Manufacturer
C1, C53	2	2.2nF	CAP., X7R, 16V, 10%, 0603	0603YC222KAT2A	AVX
C2, C9, C28, C32, C34, C52	6	1μF	CAP., X7R, 16V, 10%, 0603	EMK107B7105KA-T	Taiyo Yuden
C3	1	1.5nF	CAP., X7R, 16V, 10%, 0603	C0603C152K4RACTU	Kemet
C4	1	2.2μF	CAP., X5R, 16V, 10%, 0603	C1608X5R1C225K080AB	TDK
C5	1	100pF	CAP., NP0, 50V, 5%, 0603	C1608C0G1H101J080AA	AVX
C6, C7, C8	3	4.7nF	CAP., NP0, 630V, 5%, 1206	C3216C0G2J472J085AA	TDK
C10	1	0.22μF	CAP., Film, 630V, 20%, 7x15x17.5(mm)	BFC233820224	Vishay
C11, C12, C64, C65, CY4	5	4.7nF	CAP., X1Y2, 250VAC, 20%, Rad.	C947U472MYVDBA7317	Kemet
C13, C71	2	120μF	CAP., Alum., 450V, 20%, Rad. 18x33.5(mm)	450QXW120MEFC18X31.5	Rubycon
C14, C18	2	3.3μF	CAP., Alum., 400V, 20%, E3.5-8	400LLE3R3MEFC8X11R5	Rubycon
C17, C19, C27, C37, C35	5	0.1μF	CAP., X7R, 16V, 10%, 0603	GRM188R71C104KA01D	Murata
C15, C16, C23, C24	4	0.1μF	CAP., X7R, 630V, 10%, 1812	C4532X7R2J104K230KA	TDK
C20	1	0.1μF	CAP., X7R, 25V, 10%, 1206	C1206F104K3RACTU	Kemet
C21, C29	2	10μF	CAP., X5R, 16V, 20%, 0805	C0805C106M4PACTU	Kemet
C22	1	100μF	CAP., Alum., 16V, 20%, Rad. 5x2(mm)	16PX100MEFCTA5X11	Rubycon
C26	1	470μF	CAP., Poly. Alum., 16V, 20%, E3.5-8	RNE1C471MDN1PX	Nichicon
C31, C50, C59	3	4.7μF	CAP., X5R, 16V, 10%, 0805	C0805C475K4PACTU	Kemet
C36	1	68nF	CAP., X7R, 16V, 10%, 0603	CC0603KRX7R7BB683	Yageo
C38, C47, C70	3	820μF	CAP., Alum., 16V, 20%, E5-10.5	EEU-FC1C821	Panasonic
C39	1	680μF	CAP., Alum., 16V, 20%, E3.5-8	EEU-FC1C681L	Panasonic
C40, C41, C42, C43, C55, C56, C62, C63	8	100μF	CAP., X5R, 16V, 20%, 1210	EMK325ABJ107MM-T	Taiyo Yuden
C44	1	22nF	CAP., Film, 1kV, 5%, 26x6.5(mm)	PHE450PD5220JR06L2	Kemet
C45, C46	2	330pF	CAP., NP0, 50V, 5%, 0805	C0805C331J5GACTU	Kemet
C51	1	10nF	CAP., X7R, 16V, 10%, 0603	CGJ3E2X7R1C103K080AA	TDK
C54	1	1nF	CAP., X7R, 16V, 5%, 0603	C0603C102J4RACTU	Kemet
C57, C58	2	8.2nF	CAP., NP0, 630V, 5%, 1206	C3216C0G2J822J160AA	TDK
C60	1	820μF	CAP., Poly. Alum., 16V, 20%, E5-10.5	PLG1C821MD01	Nichicon
C68	1	2.2μF	CAP., Film, 450V, 5%, 18.8x12.8(mm)	ECW-F2W225JA	Panasonic
CX1, CX2	2	470nF	CAP., Film, 630V, X2	BFC233920474	Vishay
R1	1	110kΩ	RES., 0.1W, 1%, 0603	CRCW0603110KFKEA	Vishay
R2	1	75kΩ	RES., 0.1W, 5%, 0603	CRCW060375K0JNEA	Vishay
R3, R4, R5	3	2.37MΩ	RES., 1/8W, 1%, 0805	RC0805FR-072M37L	Yageo
R6	1	3.3kΩ	RES., 0.1W, 1%, 0603	RMCF0603FT3K30	Stackpole
R7	1	60mΩ	RES., 1W, 1%, 2512	WSL2512R0600FEA	Vishay

TDAIO250P200-KIT Bill of Materials (BOM)

Designator	Qty	Value	Description	Part Number	Manufacturer
R8, R34	2	11kΩ	RES., 0.1W, 1%, 0603	ERJ-3EKF1102V	Panasonic
R9, R38	2	23.2kΩ	RES., 0.1W, 1%, 0603	ERA-3AEB2322V	Panasonic
R10, R13	2	220kΩ	RES., 1/4W, 1%, 1206	RC1206FR-07220KL	Yageo
R12	1	1.8MΩ	RES., 1/8W, 1%, 0805	KTR10EZPF1804	ROHM
R11	1	1.78MΩ	RES., 1/8W, 1%, 0805	CRCW08051M78FKEA	Vishay
R14	1	10Ω	RES., 2W, 2%, 2512	RCL122510R0FKEG	Vishay
R15	1	2.05kΩ	RES., 0.1W, 1%, 0603	RC0603FR-072K05L	Yageo
R16	1	13kΩ	RES., 0.1W, 1%, 0603	RC0603FR-0713KL	Yageo
R17	1	13kΩ	RES., 1/4W, 5%, 1206	ERJ-8GEYJ133V	Panasonic
R18	1	4.7Ω	RES., 1/8W, 1%, 0805	KTR10EZPF4R70	ROHM
R19	1	4.32kΩ	RES., 0.1W, 1%, 0603	ERJ-3EKF4321V	Panasonic
R20	1	4.7kΩ	RES., 0.1W, 1%, 0603	RC0603FR-074K7L	Yageo
R21, R22, R23	3	953kΩ	RES., 1/8W, 1%, 0603	ERJ-6ENF9533V	Panasonic
R24	1	10kΩ	RES., 1/8W, 1%, 0805	ERJ-6ENF1002V	Panasonic
R25, R27	2	20kΩ	RES., 0.1W, 1%, 0603	MCR03ERTF2002	ROHM
R26, R30	2	5.9kΩ	RES., 0.1W, 1%, 0603	RC0603FR-075K9L	Yageo
R28, R29	2	0.56Ω	RES., 1/8W, 1%, 0805	RL0805FR-070R56L	Yageo
R31	1	2.2kΩ	RES., 0.1W, 1%, 0603	RC0603FR-072K2L	Yageo
R32, R40	2	1kΩ	RES., 0.1W, 1%, 0603	RC0603FR-071KL	Yageo
R33	1	14.7kΩ	RES., 0.1W, 1%, 0603	ERJ-3EKF1472V	Panasonic
R35	1	13.7kΩ	RES., 0.1W, 1%, 0603	ERJ-3EKF1372V	Panasonic
R36	1	750Ω	RES., 0.1W, 1%, 0603	RC0603FR-07750RL	Yageo
R37	1	249Ω	RES., 0.1W, 1%, 0603	MCR03ERTF2490	Vishay
R39	1	100Ω	RES., 0.1W, 1%, 0603	RC0603FR-07100RL	Yageo
R41	1	7.5kΩ	RES., 0.1W, 1%, 0603	MCR03ERTF7501	Yageo
R42, R46	2	2kΩ	RES., 0.1W, 1%, 0603	ERJ-3EKF2001V	Panasonic
R43	1	150kΩ	RES., 0.1W, 1%, 0603	RC0603FR-07150KL	Yageo
R44	1	12.4kΩ	RES., 0.1W, 1%, 0603	RC0603FR-0712K4L	Yageo
R47, R48, R57, R58, R59, R60, R51	6		RES., N/A, 0603		N/A
R45	1	6.8kΩ	RES., 0.1W, 1%, 0603	RC0603FR-076K8L	Yageo
R53, R56,	3	0Ω	RES., 0.1W, 0603	RC0603JR-070RL	Yageo
R49, R50	2	24kΩ	RES., 1/8W, 5%, 0805	RC0805JR-0724KL	Yageo
R54, R55	2	4.7Ω	RES., 0.1W, 1%, 0603	P4.7AJCT-ND	Panasonic
R61, R62	2	2.2MΩ	RES., 1/4W, 5%, 1206	RC1206JR-072M2L	Yageo
R63, R64	2	10Ω	RES., 1/4W, 5%, 0805	RPC0805JT10R0	Stackpole
D1	1	1000V	Diode, 1A, DO-214AC	S1M-13-F	Diodes Inc.
R44	1	12.4kΩ	RES., 0.1W, 1%, 0603	RC0603FR-0712K4L	Yageo
D2	1	600V	Diode, 3A, DO-214AB	S3J	Fairchild
D3	1	600V	Diode, SiC, 2A, TO220-2	C3D02060A	Cree
D5	1	600V	Diode, 1A, DO-214AC	S1J-13-F	Diodes Inc.
D6, D7	1	600V	Diode, Ultra Fast, 1A, DO-214AC	ES1J-LTP	Diodes Inc.
D8	1	11V	Diode, Zener, 0.5W, SOD123	MMSZ5241BT1G	ON Semiconductor
D9, D10	2	75V	Diode, 0.15A, SOD323F	1N4148WS	Fairchild
Q1, Q2, Q3	3	600V	GaN FET, 9A, TO-220	TPH3202PS	Transphorm
Ld1, Ld2, Ld3, Ld4	4	26μH	IND., DCR < 40mΩ	P1131	MPS Inc.
L1, L2	2	9mH	Common Mode Chk, 1.9A,	P5094	MPS Inc.

TDAIO250P200-KIT Bill of Materials (BOM)

Designator	Qty	Value	Description	Part Number	Manufacturer
			22x15(mm)		
L4	1	1mH	IND., 70mA, 1210	744045102	Würth Elek.
L5	1	1mH	IND., 0.235A, 7.6x7.6(mm)	DRA73-102-R	Cooper Buss.
LF	1	480µH	IND., 200kHz, CC30/19	019-8202-00R	Precision
J1	1	300V	CONN., 10A, 3Pin_3.5mm	6.91214E+11	Würth Elek.
J2, J3	2		BUSH, 54A	7461093	Würth Elek.
HS2, HS3	2		HEATSINK, 10x10(mm)	V2017B	Assmann WSW Comp.
PS1	1	12V	PowerChip, Offline, 1.44W, SO-8C	LNK304DG-TL	Power Integrations
MOV1	1	504V	MOV, 3.5kA, Disc 10.5mm	ERZ-E08A561	Panasonic
U2	1		LLC Controller, 16-SOIC	NCP1397BDR2G	ON Semiconductor
U1	1		PFC Controller, CCM, 200kHz, SO-08	NCP1654BD200R2G	ON Semiconductor
U3, U4	2		Synchronous Rectifier Driver, SO-08	NCP4304BDR2G	ON Semiconductor
U5	1		Voltage Reference, SOT23	NCP432BCSNT1G	ON Semiconductor
U6	1	5kV	Optoisolator, 4-SMD	HCPL-817-50AE	Broadcom
U7	1		X2 CAP. DIS., SOIC-8	NCP4810DR2G	ON Semiconductor
F1	1	250V	FUSE, SLOW, 6.3A	39216300000	Littlefuse Inc.
Q4, Q5	2	40V	MOSFET, N-CH, 100A, PG-TDSON-8	BSC017N04NS G	Infineon
Transformer	1	240W	Transformer, LLC, 170kHz - 200kHz	019-7896-00R	Precision
FB1, FB2, FB3	3	60Ω	Ferrite Bead, 60Ω@100MHz, 500mA, 0603	MMZ1608Y600B	TDK
REC	1	600V	Rectifier Bridge, 8A, D-72	VS-KBPC806PBF	Vishay
	1		Thermal Pad, 0.9W/m-K, 18.42x13.21(mm)	53-77-9G	Aavid Thermalloy
	1	47Ω	Ferrite Core, 47Ω@100MHz, 4.2mm OD	74270012	Würth Elek.