

Bill of Materials

TI DESIGNS

TIDA-00146: Automotive Adaptive Front Light Positioning Stepper Motor

Designator	Value	Designator	Description	Manufacturer	MFG Part Number	Size	Quantity
C1, C2	0.1uF	C1, C2	X7R 1206	Kemet	C1206C104M5RACTU	1206	2
C3	.01uF	C3	CAP 10000PF 50V CERAMIC X7R 0805	Kemet	C0805C103K5RACTU	0805	1
C4, C6, C8, C9, C10, C11, C12, C13, C14, C16, C18, C22	0.1uF	C4, C6, C8, C9, C10, C11, C12, C13, C14, C16, C18, C22	CAP .10UF 50V CERAMIC X7R 0805	Kemet	C0805C104K5RACTU	0805	12
C5	.47uF	C5	CAP CER .47UF 25V X7R 0805 FO	Kemet	C0805F474K3RACTU	0805	1
C7	100uF	C7	CAP 100UF 50V ELECT M RADIAL	Panasonic	ECA-1HM101	0.315" Dia x 0.453" H (8.00mm x 11.50mm)	1
C15, C17, C21	10uF	C15, C17, C21	CAP 10UF 25V ELECT VR RADIAL	Nichicon	UVR1E100MDD	RB .1/.250	3
C19, C20	33pF	C19, C20	CAP CERAMIC 33PF 50V NP0 0805	Yageo	CC0805JRNP09BN330	0805	2
D1, D2, D4	LED RED	D1, D2, D4	LED RED CLEAR 1206 SMD	Stanley Electric & Co	HBR1105W-TR	1206	3
D3	LED RED	D3	LED RED CLEAR 1206 SMD	Stanley	HBR1105W-TR	1206	1
J1	Connector	J1	TERM BLOCK 5.08MM VERT 2POS PCB	On Shore Technologies	OSTTA024163	0.200" (5.08mm)	1
J3	N/A	J3	TERM BLOCK 5.08MM VERT 4POS PCB	On Shore Technologies	OSTTA044163	0.200" (5.08mm)	1
J4	4 Pos Header	J4	CONN HEADER .100 SNGL STR 4POS	3M	929647-09-04-I	0.100" (2.54mm)	1
J5	USB B	J5	CONN USB RT ANG RECPT TYPE B BLK	Molex	67068-8000	USB B	1
J6	14 Pos Header	J6	CONN HEADER .100 DUAL STR 14POS	3M	929665-09-07-I	0.100" (2.54mm)	1
JP1	6 Pos Dual Header	JP1	CONN HEADER .100 DUAL STR 6POS	3M	929665-09-03-I	0.100" (2.54mm)	1
JP2, JP3	3 Pos Header	JP2, JP3	CONN HEADER .100 SINGL STR 3POS	3M	929647-09-03-I	0.100" (2.54mm)	2
JP5	3 Pos Header	JP5	CONN HEADER .100 SINGL STR 3POS	3M	929647-09-03-I	0.100" (2.54mm)	1
L1	10mH	L1	FERRITE 1.5A 40 OHM 0805 SMD	Steward	MI0805K400R-10	0805	1

Designator	Value	Designator	Description	Manufacturer	MFG Part Number	Size	Quantity
R1, R2, R4, R10, R13, R14	3.3K	R1, R2, R4, R10, R13, R14	RES 3.3K OHM 1/8W 5% 0805 SMD	Yageo	RC0805JR-073K3L	0805	6
R3, R7, R8	10K	R3, R7, R8	TRIMPOT CERM 10K OHM 12TRN TOP	Murata	PV37Y103C01B00	Square - 0.252" L x 0.157" W x 0.264" H (6.40mm x 4.00mm x 6.70mm)	3
R5, R6	.4	R5, R6	SMD	Stackpole	CSRN2512FKR400	2512	2
R20	330	R9, R18, R20	SMD	Yageo	RC0805JR-07330RL	0805	3
R11, R12	220	R11, R12	16PIN SMD	CTS Resistors	766163221GP	16-SOIC (3.9mm Width)	2
R15	196K	R15	0805 SMD	Yageo	RC0805FR-07196KL	0805	1
R17	0	R17	SMD	Yageo	RC0805JR-070RL	0805	1
R19	110K	R19	0805 SMD	Yageo	RC0805JR-07110KL	0805	1
S1	Push Button	S1	4.3MM 100GF	Panasonic	EVQ-11A04M	Pana_PB	1
TL1	PCB	TL1	CPG004 Bare Board	Texas Instruments	EVM Bare Board		1
TP3, TP4,	WHITE	TP6, TP7, TP8, TP9, TP10,	Test Points LG WHT TERM	Kobiconn	151-101-RC	0.052 in	24
TP26,	RED	TP25, TP26, TP27	Test Points LG RED TERM	Kobiconn	151-107-RC	0.052 in	3
TP29,	BLACK	TP32, TP33	Test Points LG BLACK TERM	Kobiconn	151-103-RC	0.052 in	6
U1	Driver	U1	Stepper Motor Driver	Texas Instruments	DRV8824PWP	HTSSOP	1
U2	MSP430 MCU	U2	LQFP	Texas Instruments	MSP430F1612IPM	LQFP-64	1
U3	USB Driver	U3	SSOP	FTDI	FT232RL R	28SSOP	1
U4	LDO	U4	SOIC	Texas Instruments	TPS77701D	SOIC 8	1
Y1	Crystal	Y1	49US	ECS Inc.	ECS-80-20-4	HC49/US	1

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Approved	<p>Notes</p> <ol style="list-style-type: none"> 1. These assemblies are ESD sensitive, ESD precautions shall be observed. 2. These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable. 3. These assemblies must comply with workmanship standards IPC-A-610 Class 2. 4. Ref designators marked with an asterisk ("*") cannot be substituted. <p>All other components can be substituted with equivalent MFG's components.</p>	
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