

Bill of Materials

TI DESIGNS
Automotive HVAC Damper Motor Control

Designator	Value	Designator	Description	Manufacturer	MFG Part Number	Size	Quantity
C1, C2	0.1uF	C1, C2	CAP .10UF 50V CERAMIC X7R 1206	Kemet	C1206C104MSRACTU	1206	2
C3	.01uF	C3	CAP 10000PF 50V CERAMIC X7R 0805	Kemet	C0805C103KSRACTU	805	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	C0805C104KSRACTU	805	12
C5	.47uF	C5	CAP CER .47UF 25V X7R 0805 FO	Kemet	C0805F474K3SRACTU	805	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	R8 -17.250	3
C19, C20	33pF	C19, C20	CAP CERAMIC 33PF 50V NPO 0805	Yageo	CC0805JRNP09BN330	805	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 SINGL STR 4POS	3M	929647-09-04-I	0.100" (2.54mm)	1
J5	USB B	J5	CONN USB RT ANG RECPY 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	M0805K400R-10	805	1
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	805	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	0.4	R5, R6	RES .4OHM 2W 1% 2512 SMD	Stackpole	CSRN2512FKR400	2512	2
R9, R18, R20	330	R9, R18, R20	RES 330 OHM 1/8W 5% 0805 SMD	Yageo	RC0805JR-07330RL	805	2
R11, R12	220	R11, R12	RES NET 8RES 220 OHM 16PIN SMD	CTS Resistors	766163221GP	16-SOIC (3.9mm Width)	2
R15	196K	R15	RES 196K OHM 1/8W 1% 0805 SMD	Yageo	RC0805FR-07196KL	805	1
R16, R17	0	R16, R17	RES 0.0 OHM 1/8W 5% 0805 SMD	Yageo	RC0805JR-070RL	805	2
R19	110K	R19	RES 110K OHM 1/8W 5% 0805 SMD	Yageo	RC0805JR-07110KL	805	1
S1	Push Button	S1	SWITCH LIGHT TOUCH 4.3MM 100GF	Panasonic	EVQ-11A04M	Pana PB	1
TL1	PCB	TL1	CPG004 Bare Board	Texas Instruments	DRV88xx Customer EVM Bare Board		1
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24	WHITE	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24	Test Points LG WHT TERM	Kobiconn	151-101-RC	0.052 in	24
TP25, TP26, TP27	RED	TP25, TP26, TP27	Test Points LG RED TERM	Kobiconn	151-107-RC	0.052 in	3
TP28, TP29, TP30, TP31, TP32, TP33	BLACK	TP28, TP29, TP30, TP31, TP32, TP33	Test Points LG BLACK TERM	Kobiconn	151-103-RC	0.052 in	6
U1	Driver	U1	Stepper / DC Motor Driver	Texas Instruments	DRV8802PWP	HTSSOP	1
U2	MSP430 MCU	U2	IC MCU 16BIT 55K FLASH 64-LQFP	Texas Instruments	MSP430F1612IPM	LQFP-64	1
U3	USB Driver	U3	IC USB TO SERIAL UART 28-SSOP	FTDI	FT232RL R	28SSOP	1
U4	LDO	U4	IC ADJ 750MA LDO REG 8-SOIC	Texas Instruments	TPS77701D	SOIC 8	1
Y1	Crystal	Y1	CRYSTAL 8.00 MHz 20PF 49US	ECS Inc.	ECS-80-20-4	HC49/US	1

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

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