

Designator	Value	Comment	Description	Footprint	Quantity
		PWM_Control	Header, 6-Pin	HDR1X6	1
[NoValue], *1, *2, *3, *4, *5		LM324AMX/NOPB			6
C1, C2, C3	1000pF	GRM188R71C102KA01D	CAP, CERM, 1000pF, 16V, +/-10%, X7R, 0603	0603L	3
C4	1uF	885012206052	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603L	1
C5	1uF	GRM188R70J105KA01D	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, 0603	0603L	1
C6	0.047uF	C1608X752A473K080A B	CAP, CERM, 0.047 uF, 100 V, +/- 10%, X7S, 0603	0603L	1
C7	0.1uF	GRM188R70J104KA01D	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0603	0603L	1
C8	0.1uF	GRM188R72A104KA35B	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603L	1
C9	4.7uF	GRM32ER71K475KE14L	CAP, CERM, 4.7 uF, 80 V, +/- 10%, X7R, 1210	1210_270L	1
C10, C13, C32, C36, C37, C38, C39, C40, C41, C42, C43, C44	0.1uF	0603YC104JAT2A	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0603	0603L	12
C11, C12	2.2uF	10V	C0805C225K8RACAUTO . 2.2uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	2
C14, C16	100uF	Ceramic	Polarized Capacitor (Surface Mount)	CAPAE660X800N	2
C15, C17, C26, C33	0.1uF	10V	C0805C104K8RACTU. 0.1uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	4
C18	10nF		C0805C103K8RAC7800. 10000pF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	1
C19	1uF		CL21B105KPFNNNE. 1uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	1
C20, C21, C22, C23, C24	0.1uF		C0805C104K8RACTU. 0.1uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	5
C25, C35	0.1uF	10V	C0805C104K8RACTU. 0.1uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C0805	2
C27, C28, C29	2200pF	GRM188R71C222KA01D	CAP, CERM, 2200pF, 16V, +/-10%, X7R, 0603	0603L	3
C30, C31	28pF	50V	CBR08C409B5GAC, CBR08C409B5GAC. 4pF ±0.1pF 50V Ceramic Capacitor COG, NP0 0805 (2012 Metric)	C0805	2
C34	10uF	Cap	Capacitor	C0805	1
D1	Red	LTST-C170KRKT	LED, Red, SMD	LED_LTST-C170	1
P1		74650094R x2	Header, 2-Pin	HDR1X2	1
P2		CAN	Header, 4-Pin	HDR1X4	1
P3		74650094R x3	Header, 3-Pin	HDR1X3	1
P4		PROGRAMMING	Header, 7-Pin	HDR1X7	1
P5		DM3D-SF	CONN MICRO SD CARD PUSH-PULL	FP-DM3D-SF-MFG	1
Q1, Q2, Q3, Q4, Q5, Q6		NMOS-2	N-Channel Power MOSFET	TO-220AB	6
R1, R2, R5, R6, R7, R8, R10, R13, R14, R15, R17, R19, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R40, R41	0.007	CRE2512-FZ-R007E-3	RES SMD 0.007 OHM 1% 3W 2512	2512L	30
R3, R4	75k	CRCW060375K0JNEA	RES, 75 k, 5%, 0.1 W, 0603	0603L	2
R9	10k	CRCW060310K0JNEA	RES, 10 k, 5%, 0.1 W, 0603	0603L	1
R11	1.5k	CRCW06031K50JNEA	RES, 1.5 k, 5%, 0.1 W, 0603	0603L	1
R12	330	CRCW0603330RJNEA	RES, 330 ohm, 5%, 0.1W, 0603	0603L	1
R16	120	5%	ERJ-3GEY1103V. 10 kOhms ±5% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thick Film	J1-0603	1
R18	10K	5%	ERJ-3GEY1103V. 10 kOhms ±5% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thick Film	J1-0603	1
R20, R21, R22	56	CRCW060356R0JNEA	RES, 56 ohm, 5%, 0.1W, 0603	0603L	3
R39	10K	CRCW060356R0JNEA	RES, 56 ohm, 5%, 0.1W, 0603	0603L	1
RT1, RT2, RT3, RT4, RT5, RT6, RT7, RT8		10k	NTC Thermistor for Temperature Sensor, 0402, 47kΩ, 1%, 0.046mA, 5V	FP-NCP15-NCU15-0_05-MFG	8
S1		SW-PB	Switch	PTS636 SM43 SMTR LFS	1
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14	White	5002	Test Point, Miniature, White, TH	Keystone5002	14
U1		DRV8323SRTAT	Multiphase Motor Driver Power MOSFET SPI 40-WQFN_6x6_	QFN50P600X600X80-41N415X415	1
U2		TJA1051T_3,118	Integrated Circuit	SOIC127P600X175-8N	1
U3		STM32F405RG76TR		STM32F405RG76TR	1
U4		TLV1117-33IDCYR	Integrated Circuit	SOT230P700X180-4N	1
U6, U7		INA180	0V to 26V Current Sense Amplifier	INA180	2
U8		LI53DHTR	Accelerometer	LI53DHTR	1
U9		TMUX1208PWR	Integrated Circuit	SOP65P640X120-16N	1
Y1		CX5032GB08000H0HPQ Z1	8MHz ±20ppm Crystal 12pF 300 Ohms 2-SMD No Lead	CX5032GB08000H0HPQ Z1	1