

ChangeMe in variant

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB1	1		Printed Circuit Board		TIDA-010237	Any		
C1, C2, C3, C4, C16, C17, C18, C19, C20, C21, C22, C23	12	100nF	Multi-Layer Ceramic Capacitor 100nF 16V X5R ±10% 0201 Paper T/R GRT033R61C104KE01D	201				
C5	1	22uF	CAP_CERM, 22 uF, 25 V, +/- 10%, X7R, 1210	1210	CC1210KKX7R8BB226	Yageo		
C6	1	0.1uF	CAP_CERM, 0.1 uF, 25 V, +/- 20%, X7R, 0402	0402	TMK105B7104MV-FR	Taiyo Yuden		
C7	1	1,000 pF	CAP CER 1000PF 10V 10% X7R 0402	0402		Kemet		
C10	1	10,000 pF	CAP CER 10000PF 16V 10% X5R 0201 C0201C103K4PACTU	0201		KEMET		
C11, C12	2	47uF	Chip Multilayer Ceramic Capacitors for General Purpose, 1210, 47uF, X6S, 22%, 10%, 16V GRM32EC81C476KE15K	1210				
C13	1	10uF	Chip Multilayer Ceramic Capacitors for General Purpose, 0402, 10uF, X5R, 15%, 20%, 6.3V	0402				
C14	1	0.1uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 6.3V 0.1uF X7R 0402 20%	0402		AVX Interconnect / Elco		
C15	1	470nF	Multilayer Ceramic Capacitors 470nF ±10% 25V X5R SMD 0402	0402				
C24, C25, C37	3	1uF	Chip Multilayer Ceramic Capacitors for General Purpose, 0402, 1.0uF, X5R, 15%, 20%, 35V GRM155R6YA105ME11D	0402				
C26, C27, C28, C29, C34, C35, C36	7	0.1uF	CAP CER 0.1UF 25V X5R 0201	0201				
C30	1	47pF	Multilayer Ceramic Capacitors 47pF ±10% 50V C0G SMD 0201 C0603C0G1H470K030BA	0201				
C31	1	2.2uF	Chip Multilayer Ceramic Capacitors for General Purpose, 0402, 2.2uF, X5R, 15%, 10%, 35V GRM155R6YA225KE11D	0402				
C32	1	0.1uF	CAP CER 0.1UF 25V X5R 0201 CC0201KRX5R8BB104	0201				
C33	1	22uF	General Purpose Ceramic Capacitor, 1206, 22uF, 10%, X5R, 15%, 16V	1206				
D1, D2	2		DIODE GEN PURP 75V 200MA SOD523F			ON Semiconductor		
D3	1		LED GREEN DIFFUSED 0603 SMD			Rohm		
D4	1		LED RED 1608 SMD			Rohm		
GND1, GND2, GND3, GND4, GND5	5		Test Point, Black, 1-Pin THD, RoHS, Bulk			Keystone		
J1, J2	2		Receptacle, 2.54mm, 10x2, Tin, TH	10x2 Receptacle	SSQ-110-03-T-D	Samtec	CRD-081413-A-G	Major League Electronics
J3, J4, J5, J6	4		Series 1377 - 5.00 mm Horizontal Entry with Pressure Clamp WR-TBL, 2 pin			Würth Elektronik		
J7	1		Header, 1.27 mm, 5x2, Gold, TH	Header, 1.27 mm, 5x2, TH	FTSH-105-01-F-D-K	Samtec		
Q1, Q2	2		TRANS NPN 45V 100MA TO236AB					
R1	1	56k	56kΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402				
R2, R6, R11	3	100KQ	100kΩ ±5% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402				
R3, R4, R23, R30, R31, R32, R33	7	0	Thick Film Resistors - SMD 0 Ohms 62.5 mW 0402 5%	0402		Yageo		
R5, R13	2	10k	10kΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402				
R7	1	3	RES Thick Film, 3Q, 5%, 0.25W, 200ppm/°C, 1206	1206				
R8, R16, R17, R25	4	1k	1kΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402				
R9	1	499k	499kΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant RMCF0402FT499K	0402				
R10	1	1M	1MΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant RMCF0402FT1M00	0402				
R12	1	26.1k	Thick Film Chip Resistors 0402 26.1kΩ 0.0625W 1% 100ppm/°C	0402				
R14, R15, R18, R26, R27	5	1.3k	1.3kΩ ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402				
R19, R24	2	750Ω	RES SMD 750 OHM 1% 1/16W 0402 AC0402FR-07750RL	0402		Yageo		
R20	1	118Ω	Thick Film Chip Resistor, 0402, 118Ω, 1%, 100ppm/°C, 0.063W, 50V	0402				
R21	1	147Ω	Thick Film Chip Resistor, 0402, 147Ω, 1%, 100ppm/°C, 0.063W, 50V	0402				
R22	1	1.0k	RES, 1.0 k, 5%, 1 W, 2512	2512	ERJ-1TYJ102U	Panasonic		
R28	1	47k	Automotive Metal Thin Film Chip Resistor, 0402, 47kΩ, 0.1%, 25ppm/°C, 0.0625W, 75V	0402				
R29	1	100KQ	RP73P 0402 100KQ 0.1W 25ppm/°C 0.10% 50V	0402		TE Connectivity		
R34, R35	2	60mΩ	General Purpose Thick Film Chip Resistor, 0402, 60mΩ, 5%, 200ppm/°C, 0.125W	0402				
U1	1		18V, 1A H-bridge motor driver, PWM, PH/EN, ½ bridge control, with low power sleep mode	SOT563	DRV8220DRLR	Texas Instruments		
U2	1		IC FF D-TYPE SNGL 1BIT US8		SN74LVC2G74DCUR	Texas Instruments		
U3	1		INA293 High-Voltage, High Bandwidth, Unidirectional, 110-V Common-Mode, Current-Sense Amplifier, DBV0005A (SOT-23-5)	DBV0005A	INA293A1IDBVR	Texas Instruments	INA293A1IDBVT	Texas Instruments
U4, U5	2		Low power, small size comparator with push-pull output, DCK0005A (SOT-23-5)	DCK0005A	TLV7011DCKR	Texas Instruments	TLV7011DCKT	Texas Instruments
U6	1		1-A, Positive Voltage Regulator, DRV0006A (WSON-6)	DRV0006A	TLV76701DRVR	Texas Instruments		Texas Instruments
U8, U9	2		IC OPAMP GP 1 CIRCUIT SOT23-5		TLV172IDBVR	Texas Instruments		Texas Instruments
U10, U11	2		36-V, Low Power, Precision, CMOS, Rail-to-Rail Input/Output, Low Offset Voltage, Low Input Bias Current Op Amp, DBV0005A (SOT-23-5)	DBV0005A	OPA191IDBVR	Texas Instruments	OPA191IDBVT	Texas Instruments

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
U7	0		MSPM0L130x Mixed-Signal Microcontrollers	VQFN32	MSPM0L1306SRHB	Texas Instruments		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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