



life.augmented

Index	Quantity	Reference	Description	Value / Generic Part Number	Voltage	Power/ Current	Tolerance	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	Additional Notes
1	2	CON1,CON2	SERIE 4147 - 5.00 MM SCREWLESS 45° ENTRY 2.00 MM² WIRES WR-TBL	691414720002B				morsv500p-we691414720002B	WURTH ELEKTRONIK	691414720002B or equivalent	
2	2	CON3,CON4	SERIE 4147 - 5.00 MM SCREWLESS 45° ENTRY 2.00 MM² WIRES WR-TBL	691414720003B				morsv500p-we691414720003B	WURTH ELEKTRONIK	691414720003B or equivalent	
3	1	C1	SMT ceramic capacitor	10uF	6.3V		10%	C0805	WURTH ELEKTRONIK	885012207003 or equivalent	
4	6	C2,C3,C5,C10,C21,C60	SMT ceramic capacitor	100nF	6.3V		10%	C0603			
5	3	C4,C6,C23	SMT ceramic capacitor	1uF	6.3V		10%	C0603	WURTH ELEKTRONIK	885012206002 or equivalent	
6	2	C7,C16	SMT ceramic capacitor	10uF	25V		10%	C0805			
7	1	C8	SMT ceramic capacitor	100nF	25V		10%	C0603			
8	7	C9,C26,C27,C28,C32,C33,C34	SMT ceramic capacitor	220nF	100V		10%	C0805			
9	4	C11,C14,C38,C42	SMT ceramic capacitor		6.3V		10%	C0603			N.M.
10	1	C12	SMT ceramic capacitor	1uF	100V		10%	C0805			
11	1	C13	SMT ceramic capacitor	100nF	100V		10%	C0805			
12	3	C15,C17,C22	SMT ceramic capacitor	100nF	25V		10%	C0805			
13	2	C18,C20	SMT ceramic capacitor	6.8pF	6.3V		0.25pF	C0402			
14	1	C19	SMT ceramic capacitor	2.2nF	6.3V		10%	C0603			
15	8	C24,C25,C52,C53,C54,C57,C58,C59	SMT ceramic capacitor	1nF	6.3V		10%	C0603			
16	6	C29,C30,C31,C35,C36,C37	SMT ceramic capacitor	1uF	25V		10%	C0805	WURTH ELEKTRONIK	885012207078 or equivalent	
17	6	C39,C40,C41,C43,C44,C45	SMT ceramic capacitor	33nF	6.3V		10%	C0603			
18	6	C46,C47,C48,C49,C50,C51	THT Electrolytic Capacitor	100uF	100V		20%	D500p200	WURTH ELEKTRONIK	860130878011, 860040875005 or equivalent	
19	2	C55,C56	SMT ceramic capacitor	100nF	25 V		10%	C0603			
20	1	D1	High Voltage Power Schottky Rectifier	STPS1H100A	100V			SMA	STMicroelectronics	STPS1H100A or equivalent	
21	12	D2,D3,D4,D5,D6,D7,D8,D9,D10,D11, D12,D13	Small signal Schottky diode	BAT48	40 V			SOD-323	STMicroelectronics	BAT48FILM or equivalent	
22	8	D14,D15,D16,D17,D18,D19,D20,D21	Small signal Schottky diodes	BAT30K	30 V			SOD523	STMicroelectronics	BAT30KFILM or equivalent	
23	2	J1,J4	Jumper	OPEN					WURTH ELEKTRONIK	60900213421 or equivalent	
24	2	J2,J3	Strip connector 2 pos, 2.54 mm	STRIP 1x2				STRIP254P-M-2	WURTH ELEKTRONIK	61300211121 or Equivalent	
25	5	J5,J6,J9,J12,J14	Strip connector 5 pos, 2.54 mm	STRIP 1x5				STRIP254P-M-5	WURTH ELEKTRONIK	61300511121 or Equivalent	
26	1	J7	Male Box Header	2x10 header				con-flat-10x2-180m	WURTH ELEKTRONIK	61202021621	
27	1	J8	SMT Micro Header pitch 1.27 mm	SAMTEC FTSH-107-01-L-DV-K-A				SAMTEC_FTSH-107-01-L-DV-K-A	SAMTEC		
28	2	J10,J13	Strip connector 3 pos, 2.54 mm	STRIP 1x3				STRIP254P-M-3	WURTH ELEKTRONIK	61300311121 or Equivalent	
29	1	J11	Strip connector 9 pos, 2.54 mm	STRIP 1x9				STRIP254P-M-9	WURTH ELEKTRONIK	61300911121 or equivalent	
30	1	J15	Strip connector 4 pos, 2.54 mm	STRIP 1x4				STRIP254P-M-4	WURTH ELEKTRONIK	61300411121 or Equivalent	
31	2	LED1,LED2	WL-SMCW SMT Mono-color Chip LED Waterclear	YELLOW				led-0603	WURTH ELEKTRONIK	150060YS75000 or Equivalent	
32	2	LED3,LED4	WL-SMCW SMT Mono-color Chip LED Waterclear	RED				led-0805	WURTH ELEKTRONIK	150080RS75000 or Equivalent	
33	1	L1	WE-PD2 SMT Power Inductor	18uH		1A		7447732115-WURTH	WURTH ELEKTRONIK	744045180 or 7447732115	
34	2	NET2,NET3						CurrentSense			N.M.
35	2	NTC1,NTC2	NTC Thermistor	10k			1%	R0603	muRata	NCP18XH103F03RB or Equivalent	
36	12	Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9,Q10, Q11,Q12	N-channel 100 V, 5 mO typ., 107 A STripFET F7 Power MOSFET	STL110N10F7				PFLAT_6X5-8LEADS	STMicroelectronics	STL110N10F7 or equivalent	
37	16	R1,R3,R12,R13,R14,R20,R21,R22,R2 5,R80,R89,R106,R109,R112,R114,R1 19	SMT resistor	0		0.1W	5%	J0805			
38	2	R2,R4	SMT resistor	22k		0.1W	1%	R0603			
39	3	R5,R6,R10	SMT resistor	10k		0.1W	1%	R0603			
40	14	R7,R98,R99,R100,R101,R102,R103,R 104,R105,R107,R108,R110,R111,R12 9	SMT resistor	10k		0.1W	5%	R0603			
41	5	R8,R77,R83,R86,R92	SMT resistor	1k		0.1W	1%	R0603			
42	1	R9	SMT resistor	51k		0.1W	5%	R0603			

43	1	R11	SMT resistor			0.1W	1%	R0603			N.M.
44	9	R15,R16,R17,R115,R116,R120,R121, R125,R130	SMT resistor	0		0.1W	5%	J0805			N.M.
45	3	R18,R28,R29	SMT resistor	100k		0.1W	5%	R0603			
46	3	R19,R23,R24	SMT resistor	200		0.1W	5%	R0603			
47	3	R26,R27,R128	SMT resistor	120		0.1W	5%	R0603			
48	18	R30,R31,R33,R39,R40,R41,R42,R43, R44,R53,R54,R55,R62,R63,R64,R65, R66,R69	SMT resistor	0		0.1W	5%	R0603			
49	12	R32,R34,R35,R45,R46,R47,R56,R57, R58,R67,R68,R70	SMT resistor	33		0.1W	5%	R0603			
50	12	R36,R37,R38,R48,R49,R50,R59,R60, R61,R71,R72,R73	SMT resistor					R0603			N.M.
51	2	R51,R74	SMT resistor	0.01		2W	1%	R2512	Bourns	CRA2512-FZ-R010ELF or equivalent	N.M.
52	2	R52,R75	SMT resistor	0.01		2W	1%	R2512	Bourns	CRA2512-FZ-R010ELF or equivalent	
53	4	R76,R78,R85,R87	SMT resistor	14k		0.1W	1%	R0603			
54	2	R79,R88	SMT resistor	72.3k		0.1W	1%	R0603			
55	2	R81,R90	SMT resistor	4.7k		0.1W	1%	R0603			
56	2	R82,R91	SMT resistor	3.01k		0.1W	1%	R0603			
57	2	R84,R93	SMT resistor	7k		0.1W	1%	R0603			
58	4	R94,R95,R96,R97	SMT resistor	4.7k		0.5W	5%	R0805			
59	6	R113,R117,R118,R122,R123,R124	SMT resistor			0.1W	5%	R0603			N.M.
60	2	R126,R127	SMT resistor	2.2k		0.1W	5%	R0603			
61	6	SC1,SC2,SC3,SC4,SC5,SC6	M3 Cheese-head screw	M3							
62	6	SP1,SP2,SP3,SP4,SP5,SP6	M3 F-F Hexagonal spacer 20 mm	222424					RS-PRO	222-424	
63	3	SW1,SW2,SW3	TACTILE SWITCHES - 6x6 J-bend SMT	430483025816				BUTTON_L6_2_W6_2	WURTH ELEKTRONIK	430483025816 or equivalent	
64	35	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,T P9,TP10,TP11,TP12,TP13,TP14,TP16, TP18,TP19,TP20,TP21,TP22,TP23,TP 25,TP26,TP27,TP28,TP29,TP30,TP31, TP33,TP35,TP36,TP37,TP38,TP39,TP 40	Test point - PCB 1.5 mm diameter	TP-SMD-diam1_5mm				TP-D60			N.M.
65	3	TP15,TP41,TP42	40x71 mils SMD PAD	TP-SMD-S1751-46R				tp_SMD_135_70	HARWIN	S1751-46R or equivalent	
66	4	TP17,TP24,TP32,TP34	TP for Probe	TP-diam1_27mm-Hole0_8mm				TP-SONDA			N.M.
67	2	TR1,TR2	3/8 Square Trimpot trimming potentiometer, side adjust	100k				TRIMMER-3386P-BOURNS	Bourns	3386P-1-104 T x LF or equivalent	
68	1	U1	3-phase brushless motor controller embedding STM32G4 MCU	STSPIN32G4				VFQFPN9x9x1_0-64L-EXP	STMicroelectronics	STSPIN32G4	
69	1	U2	Three-phase gate driver	STDRIVE101				QFN24-4X4	STMicroelectronics	STDRIVE101	
70	1	U3	High input voltage 85 mA LDO linear regulator	LDK715M50R				SOT23-5L	STMicroelectronics	LDK715M50R or equivalent	
71	1	U4	TCAN33x 3.3-V CAN Transceivers with CAN FD (Flexible Data Rate)	TCAN330DCNT				SOT23-8L	TEXAS INSTRUMENTS	TCAN330DCNT or Equivalent	N.M.
72	1	X1	LOW PROFILE QUARTZ CRYSTAL	24.000MHZ				ABMM11W	WURTH ELEKTRONIK	830108212309 or ABM11W- 24.000MHZ-7-D1X-T3 or equivalent	

Chip capacitors X7R