

Bill of materials

Table 1. STDES-DABBIDIR bill of materials

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	1	Table 2. Main board bill of materials	-	Main board	ST	Not available for separate sale
2	1	Table 3. Driver board for full bridge bill of materials	-	Driver board for full bridge	ST	Not available for separate sale
3	2	Table 4. Driver board for half bridge bill of materials	-	Driver board for half bridge	ST	Not available for separate sale
4	1	Table 5. STDES-DABBIDIR control board	-	Control board	ST	Not available for separate sale

Table 2. Main board bill of materials

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	5	C1 C4 C6 C7 C9	33uF/25V	Cap Pol Radial (Electrolytic); 6.60 mm X 6.60 mm X 5.50 mm H body	WURTH	865230443004
2	3	C2 C5 C10	470nF/25V	CAPACITOR CERAMIC SMD 0603	WURTH	885012206075
3	15	C3 C8 C23 C25 C29 C30 C38 C40 C41 C43 C47 C49 C56 C58 C60	1uF/25V	CAPACITOR CERAMIC SMD 0603	WURTH	885012206076
4	2	C11 C12	25uF	WCAP-FTDB DC-Link Capacitor,32.5mm ,25uF	WURTH	890744428006CS
5	3	C14 C15 C16	40uF	WCAP-FTDB DC-Link Capacitor,32.5mm ,40uF	WURTH	890764428004CS
6	16	C24 C26 C28 C31 C32 C39 C42 C44 C46 C50 C52 C57 C59 C66 C67 C68	100nF/25V	CAPACITOR CERAMIC SMD 0603	WURTH	885012206071
7	14	C27 C34 C35 C37 C45 C48 C53 C55 C61 C62 C63 C64 C65 C76	N.M.	CAPACITOR CERAMIC SMD 0603	ANY	ANY
8	2	C33 C51	4.7uF/25V	CAPACITOR CERAMIC SMD 0603	WURTH	885012106012

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
9	2	C36 C54	1nF/16V	CAPACITOR CERAMIC SMD 0603	WURTH	885012006029
10	3	C171 C173 C175	100nF 25V	CAPACITOR CERAMIC SMD 0603	Würth Elektronik	885012206071R
11	3	C172 C174 C176	1uF 25V	CAPACITOR CERAMIC SMD 0603	Würth Elektronik	885012206076
12	7	C177 C178 C179 C180 C181 C182 C187	1uF	CAPACITOR CERAMIC SMD 2220	WURTH	885342214001
13	4	C183 C184 C185 C186	100nF	CAPACITOR CERAMIC SMD 2220	WURTH	885342214173
14	5	D1 D2 D3 D4 D7	Led Green	LED GREEN CLEAR 0805 SMD	Würth	150080YS75000
15	3	D5 D6 D8	LED_Yellow	LED YELLOW CLEAR 0805 SMD	Würth	150080GS75000
16	16	F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14 F15 F16	30Ohm@100MHz	FERRITE BEAD 30 OHM 0805 1LN	WURTH	742792030
17	6	FAN1 FAN2 FAN3 FAN4 FAN5 FAN6	109P0412G3013	Sanyo Denki 109P Series Axial Fan, 12 V dc, DC Operation, 25.1m³/h, 3.72W, 40 x 40 x 28mm	Sanyo Denki	109P0412G3013
18	1	HS1	SK_56_100_AL	SK 56 100 AL FISCHER ELEKTRONIK	fischerelektronik	SK 56 100 AL
19	2	J1 J2	Dev3	SWITCH SLIDE SPDT 500MA 12V	WURTH	450301014042
20	8	J3 J4 J5 J6 J7 J8 J9 J10	SOLDER JUMPER3	TIN DROP JUMPER 0603 3pin		
21	52	J11 J12 J13 J14 J15 J16 J17 J18 J19 J20 J21 J22 J23 J24 J25 J26 J27 J28 J29 J30 J31 J32 J33 J34 J35 J36 J50 J51 J52 J53 J54 J55 J56 J57 J58 J59 J60 J61 J62 J63 J64 J65 J66 J67 J68 J69 J70 J71 J72 J73 J74 J75	6061-0-00-15-00- 00-03-0	Circuit Board Hardware - PCB RECPT. GOLD/ NICKEL .106 IN. PRESSFIT	Mill-Max	6061-0-00-15-00-00-03-0
22	8	J37 J38 J39 J40 J41 J42 J45 J46	74651195	Power to the Board 10MM 40A SOLDER SCREW M4	WURTH	74651195

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
23	2	J47 J76	Con2	CONN TERM BLOCK 2POS 5.08MM PCB	Würth	691213510002
24	2	JP1 JP2	Con2	CONN TERM BLOCK 2POS 5.08MM PCB	Würth	691213510002
25	3	L30 L31 L32	22Ohm@100MHz		Würth Elektronik	742792021
26	1	LEM1	CASR 15-NP	SENSOR CURRENT HALL 15A AC/DC	LEM USA Inc.	CASR 15-NP
27	1	LEM2	CASR 50-NP	SENSOR CURRENT HALL 15A AC/DC	LEM USA Inc.	CASR 50-NP
28	1	P1	CON64AB	Connector Erni 284166 32X2 female	ERNI	284166
29	1	Q1	STS6NF20V, SO-8	MOSFET N-CH 20V 6A 8SOIC	ST	STS6NF20V
30	7	R1 R2 R3 R4 R5 R6 R7	5.6k	CHIP RESISTOR SMD 1% 1/4W 1206	ANY	ANY
31	7	R8 R23 R28 R38 R55 R56 R58	N.M.	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
32	2	R9 R15	10K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
33	1	R10	4.12K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
34	3	R11 R13 R16	3.9M	CHIP RESISTOR SMD 1% 1/4W 1206	ANY	ANY
35	14	R12 R18 R20 R22 R25 R31 R35 R41 R43 R45 R48 R50 R53 R54	0	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
36	3	R14 R32 R49	100	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
37	4	R17 R27 R40 R47	3K	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
38	1	R19	1.65K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
39	4	R21 R26 R42 R46	1.8K	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
40	1	R24	22K	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
41	1	R29	20K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
42	1	R30	4.22K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
43	1	R33	13.7K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
44	3	R34 R37 R39	3.6M	CHIP RESISTOR SMD 1% 1/4W 1206	ANY	ANY
45	1	R36	13K-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
46	2	R44 R64	33K	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
47	3	R51 R52 R57	0	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
48	1	R59	470	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
49	1	R60	5.6k	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
50	1	R61	5.1k	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
51	1	R62	22	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
52	1	R63	10k	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
53	1	R66	1	CHIP RESISTOR SMD 2512	ANY	ANY
54	3	R108 R119 R125	1k	CHIP RESISTOR SMD 1% 1/10W 0603		
55	3	R110 R120 R126	1.07k-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603		
56	3	R111 R121 R127	910R-0.1%	CHIP RESISTOR SMD 0.1% 1/10W 0603		
57	3	R114 R122 R128	5.76k-0.1%	CHIP RESISTOR SMD 1% 1/10W 0603		
58	3	R117 R123 R129	1.5k-0.1%	CHIP RESISTOR SMD 0.1% 1/10W 0603		
59	3	R118 R124 R130	680-0.1%	CHIP RESISTOR SMD 0.1% 1/10W 0603		

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
60	6	R131 R132 R133 R134 R135 R136	0	CHIP RESISTOR SMD 0.1% 1/10W 0603		
61	1	T1	Coilcraft- CST3015-100E	Tranf,Radio 1:100,80A	Coilcraft	CST3015-100E
62	1	T2	Frenetic_32011-04			
63	22	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22	TestPoint_Ring	TestPoint RIng	ANY	ANY
64	4	TP23 TP24 TP25 TP26	TestPoint_Ring	TestPoint RIng	ANY	ANY
65	8	TP27 TP28 TP29 TP30 TP31 TP32 TP33 TP34	TESTPOINT_1M M			
66	9	TP42 TP43 TP44 TP45 TP46 TP47 TP63 TP64 TP65	TestPoint_Ring	Polo terminale RS Pro, diam. foro 1mm, Bronzo fosforoso	ANY	ANY
67	25	TP48 TP49 TP50 TP51 TP52 TP53 TP54 TP55 TP56 TP57 TP58 TP59 TP60 TP61 TP62 TP66 TP67 TP68 TP69 TP70 TP71 TP72 TP73 TP74 TP75	TEST POINT	PC TEST POINT NATURAL	Harwin Inc.	S1751-46R
68	19	TW1 TW2 TW3 TW4 TW5 TW6 TW7 TW8 TW9 TW10 TW11 TW12 TW13 TW14 TW15 TW16 TW17 TW18 TW19	M3 HOLE NOT PLATED	Mounting Hole M3 not plated - Pan Head		
69	1	U1	LD29080DT50R, DPAK	IC REG LINEAR 5V 800MA DPAK	ST	LD29080DT50R
70	2	U10 U13	TL431ACL3T, SOT23	IC VREF SHUNT ADJ SOT23-3	ST	TL431ACL3T
71	2	U11 U20	1779205141	DC DC CONVERTER 5V 1W	WURTH	1779205141
72	2	U12 U7	TSV911ILT, SOT23-5L	IC OPAMP GP 8MHZ RRO SOT23-5	ST	TSV911ILT
73	2	U14 U8	AMC1311QDWVR Q1	IC ISOLATION 8SOIC	Texas Instruments	AMC1311QDWVRQ1
74	3	U15 U17 U9	TSV912IDT, SO-8	IC OPAMP GP 8MHZ RRO 8SO	ST	TSV912IDT
75	2	U2 U3	LDL1117S33R, SOT-223	IC REG LINEAR 3.3V 800MA SOT223	ST	LDL1117S33R

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
76	1	U4	A2F12M12W2-F1, ACEPACK 2	ACEPACK™ 2 – Full-bridge - 1200V, 12mO SiC	ST	A2F12M12W2-F1
77	2	U5 U6	A2H6M12W3	ACEPACK™ 2 - Half-bridge - 1200V, 6mO SiC MOSFET Gen2 and NTC	ST	A2H6M12W3
78	1	U18	TLVH431AIL3T, SOT23	IC VREF SHUNT ADJ SOT23-3	ST	TLVH431AIL3T
79	1	U19	STLM20W87F, SOT323-5L	SENS TEMP ANLG VOLT SOT-323-5	ST	STLM20W87F
80	3	U27 U30 U32	TSV911IYLT, SOT23-5L	IC OPAMP GP 8MHZ RRO SOT23-5	ST	TSV911IYLT
81	3	U29 U31 U33	TLVH431AIL3T, SOT23	IC VREF SHUNT ADJ SOT23-3	ST	TLVH431AIL3T
82	8	W35 W36 W37 W38 W39 W40 W41 W42	HEX NUT M3	HEX NUT M3	ANY	
83	8	W43 W56 W57 W58 W59 W60 W61 W62	HEX STANDOFF M3	HEX STANDOFF M3X0.5 STEEL 50MM	WURTH	971500321
84	8	W45 W46 W47 W48 W50 W53 W54 W55	HEX NUT M5	HEX NUT M5	ANY	

Table 3. Driver board for full bridge bill of materials

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	4	C1 C19 C32 C46	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603	Würth Electronics Inc.	885012206076
2	12	C2 C6 C12 C17 C18 C22 C31 C33 C38 C45 C47 C53	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603	Würth Electronics Inc.	885012206095
3	4	C3 C20 C34 C48	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603	Würth Electronics Inc.	885012006063
4	20	C4 C5 C9 C10 C11 C15 C16 C23 C24 C25 C29 C30 C36 C37 C39 C43 C44 C50 C51 C52	0805 (2012 Metric)	CAPACITOR CERAMIC SMD 0805	Würth Electronics Inc.	885012207079
5	8	C7 C8 C21 C27 C35 C41 C49 C55	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603	Würth Electronics Inc.	885012006059
6	4	C13 C26 C40 C54	0805 (2012 Metric)	CAPACITOR CERAMIC SMD 0805	Würth Electronics Inc.	885012207102
7	4	C14 C28 C42 C56		N.M.	ANY	
8	4	D1 D3 D5 D7	DO-213AC, MINI- MELF, SOD-80	DIODE ZENER 20V 500MW SOD80	Vishay Semiconductor Diodes Division	TZMB20-GS08

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
9	4	D2 D4 D6 D8	DO-213AC, MINI-MELF, SOD-80	DIODE ZENER 3.3V 500MW SOD80	Vishay Semiconductor Diodes Division	TZMB3V3-GS08
10	4	DC1 DC2 DC3 DC4	0.77" L x 0.39" W x 0.49" H (19.5mm x 9.8mm x 12.5mm)	CONV DC/DC 2W 12VIN +20/-5VOUT T	Recom Power	R12P22005D
11	8	FB1 FB2 FB3 FB4 FB5 FB6 FB7 FB8	0805 (2012 Metric)	FERRITE BEAD 30 OHM 0805 1LN	Würth Electronics Inc.	74279206
12	20	JP1 JP2 JP3 JP4 JP5 JP6 JP7 JP8 JP9 JP10 JP11 JP12 JP13 JP14 JP15 JP16 JP17 JP18 JP19 JP20		IC & Component Sockets .060" Dia St Pins	Mill-Max	3560-1-00-15-00-00-03-0
13	4	L1 L2 L3 L4	0805 (2012 Metric)	FIXED IND 22UH 130MA 3.7 OHM SMD	Taiyo Yuden	LBC2012T220M
14	4	Q1 Q3 Q5 Q7	TO-243AA, SOT-89	TRANS NPN 60V 3A SOT-89	ST	2STF1360
15	4	Q2 Q4 Q6 Q8	TO-243AA, SOT-89	TRANS PNP 50V 5A SOT 89	ST	2STF2550
16	3	R1 R21 R31	1210 (3225 Metric)	CHIP RESISTOR SMD	ANY	ANY
17	8	R2 R6 R12 R18 R22 R27 R32 R40	0603 (1608 Metric)	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
18	8	R3 R5 R13 R15 R23 R25 R33 R35	1210 (3225 Metric)	CHIP RESISTOR SMD	ANY	ANY
19	4	R4 R14 R24 R34	2512 (6332 metric)	CHIP RESISTOR SMD	ANY	ANY
20	4	R7 R16 R26 R36	2512 (6332 metric)	CHIP RESISTOR SMD	ANY	ANY
21	8	R8 R9 R17 R19 R28 R29 R37 R38	0603 (1608 Metric)	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
22	4	R10 R20 R30 R39	0603 (1608 Metric)	CHIP RESISTOR SMD 1% 1/10W 0603	ANY	ANY
23	1	R11	1206 (3216 Metric)	CHIP RESISTOR SMD 5% 1/4W 1206	ANY	ANY
24	28	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP24 TP25 TP26 TP27 TP28	0.100" Dia x 0.180" L (2.54mm x 4.57mm)	TEST POINT PC MINI .040"D RED	ANY	ANY
25	4	U1 U2 U3 U4	8-SOIC (0.295", 7.50mm Width), SO 8 WIDE 300	Galvanically isolated 4 A single gate driver for SiC MOSFETs	ST	STGAP2SICSC

Table 4. Driver board for half bridge bill of materials

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
1	2	C1 C19	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603 (MLCC) GRM 1µF, ±10%, 25V cc, SMD	Würth Electronics Inc.	885012206076
2	2	C2 C20	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603 (MLCC) GRM 100nF, ±10%, 25V cc, SMD	Würth Electronics Inc.	885012206071
3	1	C3	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603 (MLCC) C 1nF, ±10%, 25V cc, SMD	Würth Electronics Inc.	885012006044
4	4	C4 C10 C18 C25	0603 (1608 Metric)	CAP CER 0.1UF 50V X7R 0603	Würth Electronics Inc.	885012206095
5	6	C5 C9 C12 C16 C24 C26	0805 (2012 Metric)	CAP CER 2.2UF 50V X7R 0805	Würth Electronics Inc.	885012207079
6	4	C6 C11 C17 C23	1210 (3225 Metric)	CAP CER 22UF 25V X5R 1210	Würth Elektronik	885012109014
7	4	C7 C8 C22 C28	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603 (MLCC) C 220pF, ±5%, 1kV cc, SMD	Würth Electronics Inc.	885012006059
8	2	C13 C27	0805 (2012 Metric)	CAPACITOR CERAMIC SMD 0805	Würth Electronics Inc.	885012207102
9	4	C14 C15 C29 C30		N.M.	ANY	
10	1	C21	0603 (1608 Metric)	CAPACITOR CERAMIC SMD 0603 (MLCC) C 1nF, ±10%, 25V cc, SMD	Würth Electronics Inc.	885012006044
	4	D1 D3 D5 D7	DO-213AC, MINI-MELF, SOD-80	DIODE ZENER 20V 500MW SOD80	Vishay Semiconductor Diodes Division	TZMB20-GS08
12	4	D2 D4 D6 D8	DO-213AC, MINI-MELF, SOD-80	DIODE ZENER 3.3V 500MW SOD80	Vishay Semiconductor Diodes Division	TZMB3V3-GS08
13	2	DC1 DC2	0.77" L x 0.39" W x 0.49" H (19.5mm x 9.8mm x 12.5mm)	CONV DC/DC 2W 12VIN +20/-5VOUT T	RECOM	R12P22005D
14	4	F1 F2 F3 F4	0805 (2012 Metric)	FERRITE BEAD 30 OHM 0805 1LN	Würth Electronics Inc.	742792030
15	16	JP1 JP2 JP3 JP4 JP5 JP6 JP7 JP8 JP9 JP10 JP11 JP12 JP13 JP14 JP15 JP16		IC & Component Sockets .060" Dia St Pins	Mill-Max	3560-1-00-15-00-00-03-0

Item	Q.ty	Ref.	Part/value	Description	Manufacturer	Order code
16	2	L1 L2	0805 (2012 Metric)	FIXED IND 22UH 130MA 3.7 OHM SMD	Taiyo Yuden	LBC2012T220M
17	2	Q1 Q3	TO-243AA, SOT-89	TRANS NPN 60V 3A SOT-89	ST	2STF1360
18	2	Q2 Q4	TO-243AA, SOT-89	TRANS PNP 50V 5A SOT 89	ST	2STF2550
19	2	R1 R14	1210 (3225 Metric)	CHIP RESISTOR SMD		
20	4	R2 R6 R15 R19		Resistore SMD Bourns 1000 ±1%, 0,1W, 0603, serie CR0603	ANY	ANY
21	4	R3 R5 R16 R18	1210 (3225 Metric)	CHIP RESISTOR SMD		
22	2	R4 R17	2512 (6332 metric)	CHIP RESISTOR SMD		
23	2	R7 R20	2512 (6332 metric)	CHIP RESISTOR SMD		
24	8	R8 R9 R11 R12 R21 R22 R24 R25		N.M.	N.M.	N.M.
25	4	R10 R13 R23 R26	0603 (1608 Metric)	CHIP RESISTOR SMD 1% 1/10W 0603		
26	14	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14	0.100" Dia x 0.180" L (2.54mm x 4.57mm)	TEST POINT PC MINI .040"D RED	ANY	ANY
27	2	U1 U2	8-SOIC (0.295", 7.50mm Width), SO 8 WIDE 300	Galvanically isolated 4 A single gate driver for SiC MOSFETs	ST	STGAP2SICSC

Table 5. STDES-DABBIDIR control board

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
1	1	CN56	Jtag_SWD_Adapter	10 Way, 2 Row, Vertical Pin Header	Würth	62201021121
2	20	C3,C6,C7,C28,C34,C36,C37,C45,C48,C49,C51,C52,C53,C55,C59,C61,C62,C65,C66,C134	100nF	Multilayer Ceramic Capacitor MLCC	Würth	885012206046
3	7	C2,C27,C35,C47,C50,C58,C64	1uF	Multilayer Ceramic Capacitor MLCC	Würth	885012206076
4	17	C11,C12,C13,C14,C20,C21,C22,C24,C30,C31,C32,C33,C38,C40,C42,C43,C140	100pF	Multilayer Ceramic Capacitor MLCC	Würth	885012006057
5	1	C135	220nF	Multilayer Ceramic Capacitor MLCC	ANY	ANY
6	1	C18	470nF	Multilayer Ceramic Capacitor MLCC	Würth	885012207102

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
7	3	C15,C23,C29	2.2nF	Multilayer Ceramic Capacitor MLCC	KEMET	C0603C222J5GACTU
8	1	C133	10uF	Multilayer Ceramic Capacitor MLCC	ANY	ANY
9	7	D2,D4,D5,D9,D12 ,D13,D15	GREEN	Green LED	Würth	150080GS75000
10	2	D3,D10	SMAJ5.0A-TR, SMA	Uni-Directional TVS Diode,	ST	SMAJ5.0A-TR
11	1	D7	RED	Red LED	Würth	150080RS75000
12	5	F1,F2,F3,F4,F5	220hm@100MHz	Ferrite Beads	Würth	742792021
13	2	JP1,JP7	3JP_pcb	Solder Jumper Selector	Solder Jumper Selector	Solder Jumper Selector
14	1	JP2	STRIP_2X3	Solder Jumper Selector	Solder Jumper Selector	Solder Jumper Selector
15	1	J1	i2C	4 Way, 1 Row, Straight Pin Header	Würth	61300411121
16	2	J2,J3	CON4	4 Way, 1 Row, Straight Pin Header	Würth	61300411121
17	1	LED1	SMTL4-SBC	LED Bivar, Verde, rosso, SMD, 2,4 V, 2 Led, PLCC 4	BIVAR	SMTL4-SBC
18	1	L1	WE-CBF	Ferrite Bead	WE	74279262
19	1	P1	CON 64 male	Multipole plug	ERNI	533406
20	13	R2,R4,R5,R8,R10 ,R13,R16,R19,R44,R125,R128,R129,R130	10k	Thick Film SMD Resistor	ANY	ANY
21	36	R6,R7,R9,R12,R14,R15,R20,R21,R22,R24,R25,R26,R27,R28,R29,R31 ,R33,R34,R36,R38,R40,R41,R42,R43,R47,R48,R49,R52,R54,R55,R57 ,R58,R59,R60,R61,R62	N.M.	RESISTOR	ANY	ANY
22	10	R17,R39,R45,R46 ,R50,R51,R53,R56,R131,R133	1k	Thick Film SMD	ANY	ANY
23	7	R23,R30,R35,R126,R127,R134,R135	0	Thick Film SMD Resistor	ANY	ANY
24	2	S1,S2	te_fsm4jsma	Button Tactile Switch, Single Pole Single Throw (SPST)	TE Connectivity	FSM4JSMATR
25	26	TP1,TP2,TP3,TP4 ,TP5,TP6,TP7,TP8,TP9,TP10,TP11,TP12,TP13,TP14,TP15,TP16,TP17,TP18,TP19,TP20,	TestPoint	Test Terminal	ANY	ANY

Item	Q.ty	Ref.	Value	Description	Manufacturer	Order code
		TP21,TP22,TP24, TP25,TP26,TP27				
26	1	USB2	microUSB	Micro USB Connector Receptacle	MOLEX	47346-0001
27	5	U2,U5,U6,U9,U10	TSV912IDT, SO-8	Op Amp	ST	TSV912IDT
28	1	U3	LD29080S33R, PPACK 5	LDO Voltage Regulators	ST	LD29080S33R
29	1	U23	STM32G474RETx _3TTC_EVAL, LQFP 64 10x10x1.4 mm	STM32G474RET3	ST	STM32G474RE
30	1	U22	ESDAL, SOT23-3L	Dual-Element Uni- Directional TVS Diode	ST	ESDA6V1L
31	1	PCB	FR4 4 LAYER	PCB FR4- 4 Layer size 98x48x1.6mm		

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