



Bill of materials

Table 1. STEVAL-HILE1G4K1 bill of materials

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
2	1	-	Table 2. STEVAL-HILE1V1	Emualtor board	ST	Not available for separate sale
1	1	-	Table 3. STEVAL-G474V1CB	Control board	ST	Not available for separate sale

Table 2. STEVAL-HILE1V1 bill of materials

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	1	CON1	CON6AP	Strip 2.54mm Male 3x2	Würth Elektronik	WE 61300621121
2	2	CON2,CON3	Con2x2_0	Strip 2.54mm Male 2x2	Würth Elektronik	WE 61300421121
3	5	J10P,J13P,J14P,C ON2P1,CON2P2	Jumper_Female	CONN JUMPER SHORTING .100 GOLD	Sullins Connector Solutions	QPC02SXGN-RC
4	1	CR1	M93S46- WMN6TP, SO8	Integrated Circuit M93S46-WMN6	ST	M93S46-WMN6TP
5	1	CR2	USBLC6-2P6, SOT666	Integrated Circuit USBLC6-2P6	ST	USBLC6-2P6
6	28	C5,C9,C13,C46,C 48,C50,C52,C54,C 56,C58,C60,C129, C141,C143,C146, C147,C148,C149, C150,C151,C152, C153,C154,C156, C158,C160,C193, C195	100nF	CAP, Ceramic, SMD,100 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206095
7	1	C8	47uF - 16V	Electrolytic Capacitor SMD 47uF 16V	Panasonic	EEEF1C470P
8	13	C10,C11,C12,C47, C49,C51,C53,C55, C57,C59,C61,C19 4,C196	10nF	CAP, Ceramic, SMD, 10 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206089
9	20	C14,C16,C17,C22, C23,C24,C25,C30, C31,C32,C33,C38, C39,C40,C41,C13 6,C181,C182,C18 9,C190	220pF	CAP, Ceramic, SMD, 220 pF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012006059
10	20	C18,C19,C20,C21, C26,C27,C28,C29, C34,C35,C36,C37, C42,C43,C44,C45, C185,C186,C191, C192	2.2nF	CAP, Ceramic, SMD, 2,2 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206085
11	13	C62,C65,C68,C71, C74,C77,C80,C93,	10uF	CAP CER 10UF 16V X5R 0805	Würth Elektronik	WE 885012107014

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
		C107,C124,C126, C137,C139				
12	27	C63,C66,C69,C72, C75,C78,C81,C83, C85,C87,C89,C91, C94,C96,C98,C10 0,C102,C104,C110 ,C112,C114,C116, C118,C120,C122, C132,C134	47nF	CAP CER 47nF 100V X7R 0603	Würth Elektronik	WE 885012206118
13	28	C64,C67,C70,C73, C76,C79,C82,C84, C86,C88,C90,C92, C95,C97,C99,C10 1,C103,C105,C10 9,C111,C113,C115 ,C117,C119,C121, C123,C133,C135	10nF	CAP, Ceramic, SMD, 10 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206089
14	2	C108,C125	100nF	CAP, Ceramic, SMD,100 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206095
15	1	C127	1nF	CAP, Ceramic, SMD, 1 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206083
16	2	C130,C131	8pF	CAP CER 8PF 50V C0G/NPO 0603	Murata	GQM1885C1H8R0CB01D
17	2	C138,C140	100nF	CAP, Ceramic, SMD,100 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206095
18	2	C144,C145	12pF	CAP, Ceramic, SMD, 12 pF, 10 %, 25 V, 0603	Yageo	CC0603JRNPO9BN120
19	3	C155,C157,C159	4u7	CAP, Ceramic, SMD, 4.7 uF, 10 %, 25 V, 0603	Murata	GRM188R61E475KE11D
20	20	C161,C162,C163, C164,C165,C166, C167,C168,C169, C170,C171,C172, C173,C174,C175, C176,C177,C178, C187,C188	100pF	CAP, Ceramic, SMD, 100 pF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012006057
21	13	C197,C198,C199, C200,C201,C202, C203,C204,C205, C206,C207,C208, C209	1nF	CAP, Ceramic, SMD, 1 nF, 10 %, 25 V, 0603	Würth Elektronik	WE 885012206083
22	5	D1,D2,D8,D11,D1 2	LS Q976-NR-1	LED RED CLEAR 2SMD LS Q976-NR-1	Osram	LSQ976-Z
23	3	D4,D5,D6	LT T67K-K1L2-1	LED RED CLEAR 2SMD LT T67K- K1L2-1	Osram	LS T67K-K1L2-1
24	1	D7	PMEG3030EP	DIODE SCHOTTKY 30V 3A CFP5	Nexperia	PMEG3030EP
25	2	D9,D10	LGW396- PS-35-0-20R18	LED GREEN CLEAR 2SMD LGW396- PS-35-0-20R18	Osram	LGW396-PS-35-0-20R18

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
26	1	J1	USB-Type_C	USBC Connector Hirose CX70M-24P1	Hirose	CX70M-24P1
27	1	J2	PLUG64	Connector DIN41612B-F-64AB	ERNI	284166-E
28	1	J3	MOR2	CONN TERM BLOCK 5.08MM 2POS	Würth Elektronik	WE 691213510002
29	1	J5	CON14A_0	Strip 2.54mm Male 7x2	Würth Elektronik	WE 61301421121
30	3	J10,J13,J14	con3-strip-male	CONN HEADER .100 STR 3POS	Würth Elektronik	WE 61300311121
31	1	J11	CON4A_0	CONN HEADER .100 STR 4POS	Würth Elektronik	WE 61300411121
32	1	J12	CON2	CONN HEADER .100 2POS PCB GOLD	Würth Elektronik	WE 61300211121
33	1	J17	CON16A	Strip 2.54mm Male 8x2	Würth Elektronik	WE 61301621121
34	2	J18,J19	FLAT-4X2	Conn. FLAT 4x2 Dritto	Würth Elektronik	WE 61200821621
35	13	J20	13x TP Loop step 2.54	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
36	1	J21	L203011MS02Q	Slide Switch C&K L203011MS02Q	C&K	L203011MS02Q
37	1	LED1	LSG_T67K- JL-1+HK-1	Standard LEDs - SMD Red/Green	Osram	LSG_T67K-JL-1+HK-1
38	13	L1,L2,L3,L4,L5,L6, L7,L8,L9,L11,L12, L13,L14	60 Ohm@100MHz	Inductor SMD Case 0402 Ferrite Bead 60 ohm	Murata	BLM15PD600SN1D
39	1	L10	CLF6045T-100M- D	Inductor CFL6045-100M-D	TDK	CLF6045T-100M-D
40	1	Q1	PMPB100XPEAX	MOSFET P MOS DISCRETES	NXP	PMPB100XPEAX
41	1	Q2	PMPB55XNEAX	MOSFET N-CH 30V 3.8A 6DFN	NXP	PMPB55XNEAX
42	1	Q3	BC807-16_RF	BC807-16 RF PNP Transistor, 500 mA, 45 V, 3-Pin SOT-23	Diotec Semiconductor	BC807-25
43	88	R1,R2,R3,R4,R5,R 6,R8,R12,R13,R14 ,R15,R16,R17,R18 ,R19,R20,R21,R22 ,R23,R24,R27,R28 ,R29,R30,R32,R33 ,R35,R36,R37,R39 ,R40,R41,R42,R43 ,R44,R45,R47,R48 ,R49,R51,R52,R53 ,R54,R55,R56,R57 ,R60,R61,R62,R63 ,R64,R65,R66,R67 ,R68,R69,R70,R71 ,R72,R73,R74,R75 ,R76,R87,R89,R91 ,R159,R160,R161, R162,R163,R164, R165,R166,R176, R177,R178,R186, R187,R188,R189,	OR	RES SMD 0 OHM JUMPER 1/10W 0603	Würth Elektronik	WE 560112116001

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
		R190,R191,R192, R194,R198,R249, R250				
44	6	R25,R38,R203,R2 04,R205,R206	10R	RES SMD 10 OHM JUMPER 1/10W 0603	Wurth Elektronik	WE 560112116013
45	2	R46,R202	5k1	RES SMD 5,1K OHM 1/10W 0603	YAGEO	RC0603FR-075K1L
46	5	R50,R172,R226,R 227,R228	DNP	RES SMD DNP OHM 1% 1/10W 0603 (not assembled)		
47	15	R58,R59,R79,R80, R82,R83,R84,R85, R86,R93,R94,R19 9,R200,R201,R22 5	1k	RES SMD 1K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116014
48	1	R78	2k7	RES SMD 2K7 OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116010
49	29	R88,R90,R92,R99, R100,R101,R102, R115,R116,R117,R 118,R131,R132,R1 33,R134,R147,R1 48,R149,R150,R1 95,R207,R213,R2 14,R215,R216,R2 33,R234,R243,R2 44	10k	RES SMD 10K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116005
50	22	R95,R96,R97,R98, R111,R112,R113,R 114,R127,R128,R1 29,R130,R143,R1 44,R145,R146,R2 11,R212,R229,R23 0,R241,R242	4k7	RES SMD 4K7 OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116006
51	20	R103,R107,R109, R119,R121,R123, R125,R135,R137, R139,R141,R151, R153,R155,R157, R208,R237,R239, R245,R247	2k2	RES SMD 2K2 OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116098
52	20	R104,R106,R108, R110,R120,R122, R124,R126,R136, R138,R140,R142, R152,R154,R156, R158,R238,R240, R246,R248	22k	RES SMD 22K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116022
53	1	R105	2k	RES SMD 2K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116091
54	1	R171	0R_DNP	RES SMD 0 OHM JUMPER 1/10W 0603 (not assembled)		
55	2	R179,R197	1k	RES SMD 1K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116014
56	1	R180	10k	RES SMD 10K OHM 1% 1/10W 0603	Wurth Elektronik	WE 560112116005

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
57	4	R181,R182,R183, R184	100k-DNP	RES SMD 100K OHM 1% 1/10W 0603 (not assembled)		
58	1	R185	10k	RES SMD 10K OHM 1% 1/10W 0603	Würth Elektronik	WE 560112116005
59	1	R193	10k-DNP	RES SMD 10K OHM 1/10W 0603 (not assembled)		
60	1	R196	100k	RES SMD 100K OHM 1% 1/10W 0603	Würth Elektronik	WE 560112116004
61	1	R209	1k	RES SMD 1K OHM 1% 1/10W 0603	Würth Elektronik	WE 560112116014
62	1	R210	12k	RES SMD 12K OHM 1/10W 0603	Würth Elektronik	WE 560112116040
63	13	R251,R252,R253, R254,R255,R256, R257,R258,R259, R260,R261,R262, R263	8k2	RES SMD 8.2K OHM 1% 1/10W 0603	Würth Elektronik	WE 560112116002
64	1	SWD1	FTSH-107-01-L-D- K	CONN Samtec FTSH-107-01-L-DV	Samtec	FTSH-107-01-L-DV-K
65	1	SW1	1437566-3	SWITCH TACTILE SPST-NO 0.05A 24V Brown short	TE Conn.	1437566-3
66	1	SW2	219-8MST	Dip Switch SMD 2.54mm 8 Positions	Würth Elektronik	WE 418121270808
67	3	S1,S2,S3	1-1825910-4	Black Button Tactile Switch (SPST) 50 mA @ 24 V dc 5.9mm	Schurter	Schurter 1301.9319
68	2	TP1,TP18	TESTPOINT	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
69	1	TP2	VDD_LV	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
70	1	TP3	VDD_HV	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
71	1	TP5	PMOS	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
72	1	TP6	VLX	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
73	1	TP7	VDD_LV_SMPS	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
74	1	TP8	RESET	TEST POINT PC MINI .040"D RED	Keystone Elett.	KE 5000
75	5	TP9,TP14,TP15,T P16,TP17	GND	TEST POINT PC MINI .040"D BLACK	Keystone Elett.	KE 5001
76	2	TP10,TP11	GND	PC Test Point, Compact keystone 4954	Keystone	KE 4954
77	10	U2,U3,U4,U5,U6,U 7,U8,U9,U15,U16	TSV7722IYST, MiniSO-8	High bandwidth (22MHz) Low offset (200 µV) low-rail 5V Op amp	ST	TSV7722IYST
78	1	U11	SR5E1E770C30F 01X, LQFP 176L	ST microcontroller Stellar E1 176pin	ST	SR5E1E770C30F01X

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
79	1	U12	STM6315RDW13F , SOT-143	IC MPU RESET CIRC 2.63V SOT-143	ST	STM6315RDW13F
80	1	U13	LD1117S33TR, SOT-223	Integrated Circuit LD1117S33TR	ST	LD1117S33TR
81	1	U14	FT2232HL	Integrated Circuit FT2232HL	FTDI	FT2232HL
82	2	VR1A,VR2A	PTV09A-4025F- B103	Potentiometer 9mm horizontal 10K flat	BOURNS	PTV09A-4025F-B103
83	1	Y1	40MHz	CRYSTAL 40.000MHZ 18PF SMD	ECS	ECS-400-8-36Q-CWY-TR
84	1	Y2	12MHz	Oscillator 12Mhz 2.5x2.0mm	ECS	ECS-120-10-36-AGN-TR3
85	2		Knob	Potentiometer Knob Sifam, Ø 11.5mm, 6mm shaft (D-shaped), black color	Sifam	Sifam 3/03/ DR110-006/237/233
86	4		Jumper female	Jumper F P.2,54mm H 6mm Shunt	Würth Elektronik	WE 60900213421

Table 3. STEVAL-G474V1CB bill of materials

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
1	13	C1 C8 C14 C21 C22 C27 C30 C31 C36 C37 C38 C39 C41	2.2nF/50V	Würth Elektronik, 0603 (1608M) 2.2nF Multilayer Ceramic Capacitor MLCC 50V dc ±10% , SMD 885012206085	Würth Elektronik	885012206085
2	9	C2 C3 C10 C11 C12 C13 C34 C42 C43	100nF/16V	Würth Elektronik, 0603 (1608M) 100nF Multilayer Ceramic Capacitor MLCC 16V dc ±10% , SMD 885012206046	Würth Elektronik	885012206046
3	16	C4 C5 C6 C7 C18 C19 C20 C23 C24 C25 C26 C28 C29 C33 C35 C40	100pF/50V	Würth Elektronik, 0603 (1608M) MLCC 885012006057	Würth Elektronik	885012006057
4	2	C9 C32	1uF/25V	Würth Elektronik, 0603 (1608M) 1µF Multilayer Ceramic Capacitor MLCC 25V dc ±10% , SMD 885012206076	Würth Elektronik	885012206076
5	1	C15	470nF/50V	Würth Elektronik, 0805 (2012M) 470nF Multilayer Ceramic Capacitor MLCC 50V dc, SMD 885012207102	Würth Elektronik	885012207102
6	1	C16	10uF	Würth Elektronik 10µF Electrolytic Capacitor 16V dc, Surface Mount - 865230340001	Würth Elektronik	865230340001

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
7	1	C17	100pF/50V	Würth Elektronik, 0603 (1608M) MLCC 885012006057	Würth Elektronik	885012006057
8	1	CN1	Jtag_SWD_Adapter	Samtec, FTSH, 10 Way, 2 Row, Straight Pin Header	Samtec	FTSH-105-01-L-DV-K
9	8	D1 D2 D4 D5 D6 D7 D9 D10	GREEN	3.2 V Green LED 2012 (0805) SMD, Würth Elektronik WL-SMCW 150080GS75000	Würth Elektronik	150080GS75000
10	2	D3 D8	SMAJ5.0A-TR, SMA	Uni-Directional TVS Diode, 400W, 2-Pin DO-214AC	ST	SMAJ5.0A-TR
11	1	J1	PLUG 64 PIN 90	Connector Erni 90° 384241 32X2 male	ERNI	384241
12	1	J2	UART1	Würth Elektronik, WR-PHD, 6130, 4 Way, 1 Row, Straight Pin Header	Würth Elektronik	61300411121
13	1	J3	UART2	Würth Elektronik, WR-PHD, 6130, 4 Way, 1 Row, Straight Pin Header	Würth Elektronik	61300411121
14	1	J4	i2C	Würth Elektronik, WR-PHD, 6130, 4 Way, 1 Row, Straight Pin Header	Würth Elektronik	61300411121
15	2	JP1 JP3	3JP_pcb	Solder Bridge		
16	1	JP2	STRIP_2X3	HARWIN Male Connector, 6 Way, 2 Row, 2.54mm Pitch	HARWIN	M20-9980345
17	1	L1	WE-CBF	Würth Elektronik Ferrite Bead (EMI Suppression), 1.6 x 0.8 x 0.8mm (0603 (1608M)), 1200 impedance at 100 MHz	Würth Elektronik	74279262
18	1	LED1	SMTL4-SBC	LED Bivar, Verde, rosso, SMD, 2,4 V, 2 Led, PLCC 4	Bivar	SMTL4-SBC
19	16	R1 R2 R3 R5 R6 R8 R11 R12 R16 R17 R19 R20 R21 R22 R26 R28	10k	Bourns 10kΩ, 0603 (1608M) Thick Film SMD Resistor ±1% 0.1W - CR0603-FX-1002ELF	Bourns	CR0603-FX-1002ELF
20	10	R4 R7 R23 R24 R27 R29 R30 R31 R32 R33	1k	TE Connectivity 1kΩ, 0603 Thick Film SMD Resistor ±1% 0.1W - CRG0603F1K0	TE Connectivity	CRG0603F1K0
21	7	R9 R10 R13 R14 R15 R18 R25	0	TE Connectivity 0Ω, 0603 (1608M) Thick Film SMD Resistor ±0% 0.1W - CRG0603ZR	TE Connectivity	CRG0603ZR
22	2	S1 S2	FSM4JSMA	Black Button Tactile Switch, Single Pole Single Throw (SPST)	TE Connectivity ALCOSWITCH Switches	FSM4JSMA

Item	Q.ty	Ref.	Part / Value	Description	Manufacturer	Order code
				50 mA @ 24 V dc 1.4mm Surface Mount		
23	41	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 TP29 TP30 TP31 TP32 TP33 TP34 TP35 TP36 TP37 TP38 TP39 TP40 TP41	TestPoint	RS PRO 1mm Black Terminal Post	RS PRO	262-2179
24	1	U1	STM32G474RET3, LQFP64	Arm® Cortex®-M4 32b MCU+FPU, 512KB Flash, 150 MHz, 128KB SRAM	ST	STM32G474RET3
25	1	U2	LDL1117S33R, SOT-223	1 Low Dropout Voltage, Voltage Regulator 1.2A, 3.3 V 4-Pin, SOT-223	ST	LDL1117S33R
26	1	U3	ESDA6V1L, SOT23-3L	Dual-Element Uni- Directional TVS Diode, 300W, 3-Pin SOT-23	ST	ESDA6V1L
27	1	USB1	microUSB	Molex Right Angle, SMT, Socket Type Micro-B 2.0 USB Connector	MOLEX	47346-0001

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