

X-NUCLEO-IHM08M1

BOM (1/3)

Item	Quantity	Reference	Part / Value	Voltage / Watt / Ampere	Type / TECHNOLOGY informations	Tolerance	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	Additional Notes
1	10	C1,C12,C16,C19,C23,C27,C89,C124,C126,C128	100nF	50V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
2	1	C2	4.7uF 10V	10V	Ceramic Multilayer Capacitors X7R	20%	0805	TDK	C2012X7R1A475M125AC	
3	3	C3,C5,C7	15nF 10V	10V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
4	3	C4,C6,C8	100pF/6.3V	6.3V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	NOT MOUNTED
5	4	C10,C125,C127,C129	10nF 10V	10V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
6	2	C11,C13	100nF	100V	Ceramic Multilayer Capacitors X7R	10%	0805	ANY	ANY	
7	1	C14	4.7nF	10V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
8	1	C18	10nF NM	10V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	NOT MOUNTED
9	3	C20,C21,C22	10pF	10V	Ceramic Multilayer Capacitors C0G	5%	0603	ANY	ANY	
10	1	C28	100nF	100V	Ceramic Multilayer Capacitors X7R	10%	0603			
11	1	C29	10uF	25V	Ceramic Multilayer Capacitors X7R	10%	0805	MURATA	GRM21BR61E106KA73L	
12	1	C88	47uF	25V	Functional Polymer Aluminum Solid Electrolytic Capacitors	0.2	SMD 6.3mm diameter	Nichicon	RSS1E470MCN1GS	
13	1	C30	820pF	25V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
14	2	C31,C32	10uF	50V	Ceramic Multilayer Capacitors X5R	10%	1206	MURATA	GRM31CR61H106KA12L	
15	6	C100,C101,C106,C107,C116,C117	100pF	6.3V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	
16	3	C102,C108,C118	470nF	25V	Ceramic Multilayer Capacitors X7R	10%	0805	ANY	ANY	
17	3	C103,C109,C119	1uF	50V	Ceramic Multilayer Capacitors X7R	10%	0805	ANY	ANY	
18	6	C104,C105,C110,C111,C120,C121	NM	25V	Ceramic Multilayer Capacitors X7R	10%	0603	ANY	ANY	NOT MOUNTED
19	2	C114,C123	330uF	63V	Electrolytic Capacitor	0.2	Through hole	Nichicon	UPS1J331MHD	
20	1	D1	SMBJ48A-TR		Transil		SMD	STMicroelectronics	SMBJ48A-TR	
21	16	D2,D3,D4,D5,D6,D7,D8,D9,D10,D12,D21,D22,D23,D24,D25,D26	BAT30KFILM	30V, 0.3A	ST SCHOTTKY DIODE		SOD-523	STMicroelectronics	BAT30KFILM	
22	1	D11	RED		LED standard - SMD		SMD 0603	Lite-on	LTST-C193KRKT-5A	
23	4	D14,D15,D16,D17	STPS0560Z	60V/0.5A	ST POWER SCHOTTKY DIODE		SOD-123	STMicroelectronics	STPS0560Z	
24	4	JP1,JP2, JP3,J9	JUMPER		2 WAYS STRIP LINE-MALE 2.54mm		TH 2.54mm pitch	any		Mount with female jumper (*)
25	1	J1	Input connector		2 way 6.35mm PCB terminal block		TH 6.35 mm pitch	Phoenix Contact	1714955	
26	1	J3	Stripline m. 1x5		5 WAYS STRIP LINE-MALE 2.54mm		TH 2.54mm pitch	any		
27	2	J4,J8	RING		TEST POINT 1 mm		TH	Vero Technologies	20-2137	

X-NUCLEO-IHM08M1

BOM (2/3)

28	2	J5,J6	shunt	50A	JUMPER-tin drop						Tin drop JUMPER in 1sh direction (See assembly drawing)
29	1	J7	Stripline m. 1x3		3 WAYS STRIP LINE-MALE 2.54mm		TH 2.54mm pitch	any			
30	1	J16	Motor Connector		3 way 6.35mm PCB terminal block		TH 6.35 mm pitch	Phoenix Contact	1714968		
31	2	CN7,CN10	CN7,CN10 ST_MORPHO_19x2		ELEVATED SOCKET ST MORPHO CONNECTOR 38 PIN (19x2)		TH 2.54mm pitch	Samtec	ESQ-119-24-T-D		Alternative:4UCONN 8413 info:Male on top, female on bottom
32	2	CN6,CN9	CN6,CN9		8 PIN ELEVATED SOCKET		TH 2.54mm pitch	Samtec	ESQ-108-24-T-S		Alternative:4UCONN 15284 Mounting info: Female on top, male on bottom -NOT MOUNTED
33	1	CN5	CN5		10 PIN ELEVATED SOCKET		TH 2.54mm pitch	Samtec	ESQ-110-24-T-S		Alternative:4UCONN 15286 Mounting info: Female on top, male on bottom -NOT MOUNTED
34	1	CN8	CN8		6 PIN ELEVATED SOCKET		TH 2.54mm pitch	Samtec	ESQ-106-24-T-S		Alternative: 4UCONN 15282 Mounting info: Female on top, male on bottom -NOT MOUNTED
35	1	L3	8.2uH	520mA	SMT power inductor		SMD	Coilcraft	EPL2010-822MLB		
36	6	Q7,Q8,Q9,Q10,Q11,Q12	STL220N6F7	60V, 220A	Power Mosfets		PowerFlat	STMicroelectronics			
37	3	R1,R6,R12	6.8 kOhm	0.1W	SMD RESISTOR	1%	0603	ANY	ANY		
38	3	R4,R9,R15	1 kOhm	0.1W	SMD RESISTOR	1%	0603	ANY	ANY		
39	4	R5,R10,R11,R16	4.7 kOhm	0.1W	SMD RESISTOR	1%	0603	ANY	ANY		
40	6	R2,R7,R13,R171,R174,R176	680 Ohm	0.1W	SMD RESISTOR	1%	0603	ANY	ANY		
41	34	R3,R8,R14,R47,R48,R50,R51,R52,R54,R55,R56,R58,R59,R60,R61,R62,R63,R64,R65,R67,R70,R72,R73,R74,R77,R78,R79,R81,R84,R85,R86,R170,R178,R181	0 Ohm	0.1W	SMD RESISTOR		0603	ANY	ANY		
42	1	R17	169 kOhm	0.1W	SMD RESISTOR	1%	0603	PANASONIC	ERJ3EKF1693V		
43	1	R18	9.31 kOhm	0.1W	SMD RESISTOR	1%	0603	PANASONIC	ERJ3EKF9311V		
44	1	R19	NTC 10kOhm		NTC Thermistor	1%	0402	TDK	NTCG103JF103F		
45	1	R20	4.7 kOhm	0.1W	SMD RESISTOR		0603	ANY	ANY		
46	2	R21,R179	33 kOhm	0.1W	SMD RESISTOR		0603	ANY	ANY		
47	13	R23,R27,R28,R29,R148,R151,R154,R157,R163,R166,R172,R175,R177	10 kOhm	0.1W	SMD RESISTOR		0603	ANY	ANY		
48	3	R30,R31,R32	1.8 kOhm	0.1W	SMD RESISTOR		0603	ANY	ANY		
49	3	R33,R34,R35	4.7 kOhm	0.1W	SMD RESISTOR		0603	ANY	ANY		NOT MOUNTED
50	3	R36,R37,R38	2.2 kOhm	0.1W	SMD RESISTOR	1%	0603	ANY	ANY		
51	3	R39,R40,R41	10 kOhm	0.125W	SMD RESISTOR		0805	ANY	ANY		
52	1	R42	100 kOhm	1/2W	TRIMMER RESISTOR	10%	Through hole	Bourns	3386G-1-104LF		
53	3	R43,R44,R45	0.01 Ohm	3W	10 mohm SHUNT RESISTOR	1%	2512	KOA Speer	TLR3APDTE10L0F50		
54	4	R76,R80,R82,R182	0 N.M.	0.1W	SMD RESISTOR		0603	ANY	ANY		NOT MOUNTED
55	1	R83	510 Ohm	0.1W	SMD RESISTOR		0603	ANY	ANY		
56	1	R127	30k	0.1W	SMD RESISTOR		0603	ANY	ANY		
57	1	R128	2.7k	0.1W	SMD RESISTOR		0603	ANY	ANY		
58	1	R130	47k	0.1W	SMD RESISTOR		0603	ANY	ANY		
59	6	R149,R152,R155,R158,R164,R167	100	0.1W	SMD RESISTOR		0603	ANY	ANY		

X-NUCLEO-IHM08M1

BOM (3/3)

60	6	R150,R153,R156,R159,R165,R168	56	0.1W	SMD RESISTOR		0603	ANY	ANY	
61	1	R180	3.3 k	0.1W	SMD RESISTOR		0603	ANY	ANY	
62	1	U10	TSV994IPT		Operational Amplifier		TSSOP	STMicroelectronics	TSV994IPT	
63	1	U4	ST1S14PHR	50V,3A	3A Step down switching regulator		HSOP8 - exposed pad	STMicroelectronics	ST1S14PHR	
64	1	U19	LD1117S50TR		Low Drop Voltage Regulator		SOT-223	STMicroelectronics	LD1117S50TR	
65	3	U20,U21,U22	L6398	600V	High voltage high and low side driver		SO-8	STMicroelectronics	L6398D	
66	4	U23,U24,U25,U26	LMV331	3.3V	Low voltage comparators		SOT23-5	STMicroelectronics	LMV331ILT	
67	4	(*) Jumper			Female 2.54mm jumper					Provided but not assembled