

# BOM - X-NUCLEO-IHM02A1

Item	Qty	Reference	Part/Value	Tol %	Voltage/Current	Watt	Technology Information	Package	Manufacturer	Manufacturer Code	More Info
1	1	CN5	ARDUINO_10x1				ELEVATED SOCKET	TH	4UCONN	15286	Alternative: Samtec ESQ-110-24-T-S Mounting info: female on top, male on bottom
2	2	CN6, CN9	ARDUINO_8x1				ELEVATED SOCKET	TH	4UCONN	15284	Alternative: Samtec ESQ-108-24-T-S Mounting info: female on top, male on bottom
3	2	CN7, CN10	ST_MORPHO_19x2				ELEVATED SOCKET	TH	4UCONN	8413	Alternative: Samtec ESQ-119-24-T-D Mounting info: male on top, female on bottom <b>*** Not Mounted ***</b>
4	1	CN8	ARDUINO_6x1				ELEVATED SOCKET	TH	4UCONN	15282	Alternative: Samtec ESQ-106-24-T-S Mounting info: female on top, male on bottom
5	4	C1, C11, C17, C27	100nF	0.1	6.3V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
6	2	C2, C18	10uF	0.1	6.3V		X5R Ceramic Multilayer Capacitors	SMD 0805	TDK	C2012XSROJ106K125AB	Alternative: Murata GRM21BR60J106KE19L
7	8	C3, C4, C5, C6, C19, C20, C21, C22	100nF	0.1	50V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
8	2	C7, C23	100uF	0.2	63V		Aluminium Electrolytic Capacitor	SMD 10mm x 10.5mm	Nichicon	UUX1J101MNL1GS	Alternative: Panasonic EEEFK1J101P, Farnell 2254433
9	2	C8, C24	1nF	0.1	6.3V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
10	4	C9, C10, C25, C26	18pF	0.05	6.3V		COG Ceramic Multilayer Capacitor	SMD 0603	any		<b>*** Not Mounted ***</b>
11	2	C12, C28	47uF	0.1	6.3V		Tantalum capacitor	SMD 1206	AVX	TAJA476K006RNJ	
12	2	C13, C29	3.3nF	0.1	6.3V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		<b>*** Not Mounted ***</b>
13	2	C14, C30	220nF	0.1	16V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
14	2	C15, C31	10nF	0.1	6.3V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
15	2	C16, C32	10nF	0.1	50V		X7R Ceramic Multilayer Capacitors	SMD 0603	any		
16	4	C33, C34, C40, C41	100pF	0.05	6.3V		COG Ceramic Multilayer Capacitors	SMD 0603	any		
17	2	C35, C37	100nF	0.1	100V		X7R Ceramic Multilayer Capacitor	SMD 0805	TDK	C2012X7R2A104K125AA	Alternative: Murata GCM21BR72A104KA37L
18	1	C36	4.7uF	0.2	100V		X7S Dielectric Ceramic Multilayer	SMD 1210	TDK	C3225X7S2A475M200AB	
19	1	C38	5.1pF	0.1	50V		COG Ceramic Multilayer Capacitor	SMD 0603	any		
20	1	C39	47uF	0.1	6.3V		Tantalum Electrolytic Capacitor	SMC 3528-21	AVX	TPS8476M006R0350	
21	2	D1, D4	GREEN_LED				LED	SMD 0603	Lite-On	LTST-C191KGKT	
22	2	D2, D5	BZX84J-C3V6	0.05	3.6V	0.25W	Zener Diode	SOT23	NXP	BZX84J-C3V6	<b>*** Not Mounted ***</b>
23	2	D3, D6	BAV99		215mA/100V		Switching Diode	SOT23	NXP	BAV99	
24	1	D7	YELLOW_LED				LED	SMD 0603	Lite-on	LTST-C193KSKT-5A	
25	1	D8	RED_LED				LED	SMD 0603	Lite-on	LTST-C193KRKT-5A	
26	1	D9	ORANGE_LED				LED	SMD 0603	Lite-on	LTST-C193KFKT-5A	
27	1	D10	STPS1160		60V / 2A		Power Schottky rectifier	SMA	ST	STPS1160A	
28	1	D11	SMAJ48A		48V		Transil	JEDEC DO-214AC	ST	SMAJ48A-TR	
29	1	J1	CON4				2.54 PIN HEADER SINGLE ROW 4 PIN	TH 2.54 mm pitch	4UCONN	2099	Alternative RS:156-049
30	1	J2	CON8				2.54 PIN HEADER DUAL ROW 2x4 PIN	TH 2.54 mm pitch	4UCONN	19670	Alternative: MULTICOMP 22135-08G, Farnell 1593441
31	2	J3, J4	CON1								<b>*** Not Mounted ***</b>
32	1	L1	27uH	0.2	2.3A		Shielded Wire-wound SMD Inductor	SMD 12x12mm	Panasonic	ELL-CTV270M	
33	2	R1, R6	560	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
34	4	R2, R7, R21, R22	39k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
35	2	R3, R8	62k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		<b>*** Not Mounted ***</b>
36	2	R4, R9	9.76k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		<b>*** Not Mounted ***</b>
37	2	R5, R10	100	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
38	3	R28, R29, R30	620	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
39	1	R37	47k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
40	1	R38	100k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
41	1	R39	59k	0.01		0.1W	metal film SMD resistor	SMD 0603	any		
42	13	SB1, SB2, SB3, SB4, SB5, SB6, SB7, SB8, SB9, SB10, SB11, SB12, SB13	0	0.01		0.1W		SMD 0603	any		<b>*** Not Mounted ***</b>
43	5	SB23, SB26, SB32, SB34, SB40	0	0.01		0.1W		SMD 0603	any		
44	1	SB41	0	0.01		0.1W		SMD 0603	any		<b>*** Not Mounted ***</b>
45	2	ST1, ST2	4 terminals		400V		Through Hole 4 Way Screw Terminal (2x 2way connector)	TH 3.81 mm pitch	4UCONN	12342	Alternative: Phoenix Contact MKDS 1/4-3,81
46	1	ST3	2 terminals		400V		Through Hole 2 Way Screw Terminal	TH 3.81 mm pitch	4UCONN	12342	Alternative: Phoenix Contact MKDS 1/2-3,81
47	2	U1, U2	L6470PD				dSPIN Microstepping Driver with Motion Engine and SPI	POWERSO36	ST	L6470PD	
48	1	U3	ST1S14				step-down switching regulator	HSOP8	ST	ST1S14	
49	2	Y1, Y2	16MHz				Crystal / Ceramic Resonator	HC-49-US SMD	Abracon	ABLS-16.000MHz-B2	<b>*** Not Mounted ***</b>