

Bill Of Materials  
Dual MC Eval Board (STEVAL-IHM039V1)  
Version: 1.

Item	Quantity	Reference	Part	Tolerance	Description	Package	Manufacturer code	Distributor's code	ST part
1	1	B1	TD-0341 [RESET/Black]		micro tactile switch	SMT		RS code: 505-9192	
2	2	CON1,CON3	Header 35 x 2		2x35 way double row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole		RS code: 1732764	
3	1	CON4	Color LCD Module		2 strip line connector (female connector) 2x8 way double row 2,54mm pitch	Vertical Through Hole		RS code: 4881730	
4	1	CON5	TRACE		2x10 way double row strip line connector (male connector) 1,27mm pitch	SMD		RS code: 2546249	
5	1	CON6	JTAG		20 way IDC low profile boxed header 2,54mm pitch	Vertical Through Hole		RS code: 461770	
6	1	CON8	MC_Main connector		34 way IDC low profile boxed header 2,54mm pitch	Vertical Through Hole		RS code: 461792	
7	1	CON9	MC_Sub1 connector		34 way IDC low profile boxed header 2,54mm pitch	Vertical Through Hole		RS code: 461792	
8	1	CON11	USB-typeB conn.		USB connector	Through Hole	D-USB-BRA42-T11	Distrelec code: 124164	
9	1	CON12	DC-10B		Mini DC Power socket 2,5mm	Through Hole		RS code: 486678	
10	1	CON13	Aux DC - 250V		2 way PCB screw terminal, 5,08mm pitch	Through Hole		RS code: 4087871	
11	1	CON14	MiniUSB-typeB conn.		MiniUSB connector	SMT	Molex	RS code: 515-1995	
12	40	C1,C3,C4,C5,C6,C7,C8,C9,	100nF 16V	+/-10%	Ceramic capacitor X7R	SMD 0603			
13		C15,C20,C23,C26,C28,C34,C35,							
14		C36,C37,C38,C39,C40,C42,C44,							
15		C45,C46,C47,C50,C57,C60,C61,							
16		C62,C63,C64,C65,C66,C67,C68,							
17		C69,C70,C74,C75							
18	21	C2,C12,C13,C14,C17,C18,	do not fit						
19		C19,R24,C25,C27,C29,R30,							
20		C30,R31,C31,R32,C32,R44,							
21		R47,R61,R83							
22	2	C10,C24	1nF	+/-10%	Ceramic capacitor X7R	SMD 0603			
23	1	C11	22nF	+/-10%	Ceramic capacitor X7R	SMD 0603			
24	4	C16,C21,C33,C54	10nF	+/-10%	Ceramic capacitor X7R	SMD 0603			
25	1	C22	1uF	+/-10%	Ceramic capacitor X7R	SMD 0603			
26	4	C41,C58,C59,C73	22pF	+/-10%	Ceramic capacitor X7R	SMD 0603			
27	1	C43	4.7nF	+/-10%	Ceramic capacitor X7R	SMD 0603			
28	1	C48	10uF 16V	+/-10%	Electrolitic aluminium capacitor	SMD		RS code: 537-0124	
29	1	C49	470uF 10V	+/-10%	Electrolitic aluminium capacitor	SMD		RS code: 537-0118	
30	2	C51,C53	10uF	+/-10%	Ceramic capacitor X7R	SMD 0603			
31	1	C52	470nF	+/-10%	Ceramic capacitor X7R	SMD 0603			
32	2	C55,C56	10pF	+/-10%	Ceramic capacitor X7R	SMD 0603			
33	1	C71	1uF	+/-10%	Ceramic capacitor X7R	SMD 0603			
34	1	C72	2.2uF 10V	+/-20%	Electrolitic aluminium capacitor	SMD		RS code: 723-5503	
35	2	C76,C77	2.2uF 16V	+/-10%	Ceramic capacitor X7R	SMD 0805			
36	2	D1,D5	Red		Chip LED	SMD 0805		Distrelec code: 250154	
37	1	D2	Orange		Chip LED	SMD 0805		Distrelec code: 250156	
38	2	D3,D6	Green		Chip LED	SMD 0805		Distrelec code: 250158	
39	1	D4	Blue		Chip LED	SMD 0805		RS code: 716-6595	
40	10	JMP1,JMP2,JMP3,JMP4,JMP5,	Jump_linear 3		3 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole		RS code: 495-8470	

41		JMP6,JMP7,JMP8,JMP9,							
42		JMP10							
43	11	JP1,JP2,JP3,JP4,JP6,JP7,JP8,JP9,	JUMPER			2 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole		RS code: 495-8470
44		JP10,JP11,JP12							
45	1	JP5	CON3+1_1			3+1 way single row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole		RS code: 495-8470
46	1	J1	I2C			4 way single row strip line connector (male connector) 2,54mm pitch			RS code: 495-8470
47	1	J2	RI-0505 DC/DC converter			Isolated DC/DC converter	Through Hole	RI-0505S	RS code: 459-8113
48	1	J3	IL516-3E 0.15" 16-pin SOIC			4 channel optoisolator	SMD 0.15" SO16	IL516-3E	DigiKey code: 390-1121-5-ND
49	1	J4				3 way dual row strip line connector (male connector) 2,54mm pitch	Vertical Through Hole		RS code: 495-8436 Pin6 manually removed
50	1	L1	BEAD distrelec 330005			Data line filter	SMD 0603		Distrelec code: 330823
51	2	P1,P2	DB9-male connector			9 way r/a PCB D plug,US footprint	90° Through Hole		RS code: 239-5849
52	3	Q1,Q2,Q3	2STR1215			Low voltage fast-switching NPN power transistor	SOT-23		Yes
53	22	R6,R7,R8,R9,R10,R25,	10K	+/- 1%		Resistor	SMD 0603		
54		R26,R27,R28,R29,R33,R34,							
55		R35,R63,R64,R73,R77,R88,							
56		R91,R92,R97							
57	2	R1,R2		820 +/- 1%		Resistor	SMD 0603		
58	2	R3,R20	4K7	+/- 1%		Resistor	SMD 0603		
59	4	R4,R11,R16,R23	100R	+/- 1%		Resistor	SMD 0603		
60	32	R5,R12,R13,R14,R15,R17,	0R	+/- 1%		Resistor	SMD 0603		
61		R21,R22,R36,R37,R40,R41,							
62		R45,R46,R48,R49,R50,R52,							
63		R53,R54,R56,R57,R58,R59,							
64		R60,R76,R78,R80,R84,R87,							
65		R89,R90							
66	1	R18	330R	+/- 1%		Resistor	SMD 0603		
67	1	R19	220K	+/- 1%		Resistor	SMD 0603		
68	2	R38,R51	3.3K	+/- 1%		Resistor	SMD 0603		
69	3	R39,R42,R55	100K	+/- 1%		Resistor	SMD 0603		
70	1	R43	4.7K	+/- 1%		Resistor	SMD 0603		
71	1	R62	1k	+/- 1%		Resistor	SMD 0603		
72	4	R65,R66,R69,R71	600R	+/- 1%		Resistor	SMD 0603		
73	2	R67,R68	22R	+/- 1%		Resistor	SMD 0603		
74	1	R70	1MR	+/- 1%		Resistor	SMD 0603		
75	2	R72,R96	1.5K	+/- 1%		Resistor	SMD 0603		
76	2	R74,R98	36K	+/- 1%		Resistor	SMD 0603		
77	1	R75	47K	+/- 1%		Resistor	SMD 0603		
78	1	R79	220	+/- 1%		Resistor	SMD 0603		
79	1	R82	120R	+/- 1%		Resistor	SMD 0603		
80	1	R85	300R	+/- 1%		Resistor	SMD 0603		
81	1	R86	47R	+/- 1%		Resistor	SMD 0603		
82	1	R93	390R	+/- 1%		Resistor	SMD 0603		
83	2	R94,R95	10R	+/- 1%		Resistor	SMD 0603		
84	1	SW1	USER3			Surface Mount Tactile Switch	SMD		RS code 183701
85	1	SW2	USER2			Surface Mount Tactile Switch	SMD		RS code 183701
86	1	SW3	USER1			Surface Mount Tactile Switch	SMD		RS code 183701
87	1	SW4	BOOT1			1-pole miniature slide switches Through Hole	Through Hole		Distrelec code: 202402

88	2	SW5,SW6	BOOT0		1-pole miniature slide switches Through Hole	Through Hole		Distrelec code: 202402	
89	1	S1	RESET		Surface Mount Tactile Switch	SMD		RS code 183701	
90	1	U1	MT008-A		Joystick				
91	1	U2	USBLC6-2SC6		Very low capacitance ESD protection	SOT23-6L	USBLC6-2SC6		Yes
92	1	U3	L9615		CAN transceiver	SO8	L9615D		Yes
93	1	U4	ST3232EBTR		RS-232 transceiver	TSSOP16	ST3232EBTR		Yes
94	1	U5	ZEN056V130A24LS	5.6V	Polymer Protected Zener Diode 5.6V	SMD	ZEN056V130A24LS	FARNELL code: 1494094	
95	1	U6	BNX002-01	50V/10A	PCB mount dc power filter	Through Hole	BNX002-01	RS code: 209077	
96	1	U7	LD1086D2M33TR		Low drop linear regulator	SMD D2PAK/A	LD1086D2M33TR		Yes
97	1	U8	STM32F415ZGT6			LQFP144	STM32F415ZGT6		Yes
98	1	U9	STM32F103R8T6			LQFP64	STM32F103R8T6		Yes
99	1	U11	LD2981ABM33TR		Low drop linear regulator	SOT23-5L	LD2981ABM33TR		Yes
100	2	X1,Y2	8MHz					RS code: 547-6200	
101	1	Y1	32.768 Khz					RS code: 478-9274	
102	1	Z1	SMAJ5.0A-TR		Transil	DO-214AC			Yes
103	1	RV1	10K (Trimmer)			Vertical Through Hole		RS code: 2633034	
104	14	jumper			jumper on JMP3,JMP4,JMP10,JMP5, JMP6, JMP7,JMP8,JMP9,JMP2,JP5,JMP1,JP7,JP9,JP12			RS code: 251-8503	see assembly layer for positioning

All capacitors, if no specifications, are 16V