

Bill Of Materials for ESP Smartmeter Logger

Design Title	ESP Smartmeter Logger
Author	FW
Document Number	0.1
Revision	1.0
Assembly Variant	STANDARD
Board	Mainboard
Design Created	Sonntag, 12. Juni 2022
Design Last Modified	Donnerstag, 16. März 2023
Total Parts In Design	92

19 Capacitors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	C1	0.22uF	0603_CAP	
1	C2	0.1uF	0603_CAP	
1	C3	22uF	1210_CAP	
2	C4,C6	1nF	0402_CAP	€0,025
4	C5,C8,C18,C20	0.1uF	0402_CAP	€0,025
2	C7,C9	4.7uF	0603_CAP	€0,025
2	C10,C12	47pF	0402_CAP	€0,025
3	C11,C13,C19	10uF	0805_CAP	€0,025
1	C15	0.1uF	0603_CAP	€0,025
1	C16	1uF	0603_CAP	€0,025
1	C21	10uF	NULL	€0,025
Sub-totals:				€0,400

36 Resistors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
2	R1-R2	220	0603_RES	
1	R3	100k	0603_RES	
1	R4	30k	0603_RES	
1	R5	10k	0603_RES	
1	R6	100	0603_RES	
3	R7,R33-R34	1k5	0603_RES	
1	R8	3k3	0603_RES	€0,010
3	R9-R10,R17	470	0603_RES	€0,010
1	R11	2k	0402_RES	€0,010
4	R12,R16,R31-R32	0	0603_RES	€0,010
1	R14	2k	0603_RES	€0,010
2	R15,R18	12k	0603_RES	€0,010
6	R21,R24,R26,R28-R30	47k	0603_RES	€0,010
1	R23	10k	0603_RES	€0,010
8	R35-R42	0	0402_RES	€0,010
Sub-totals:				€0,270

7 Integrated Circuits

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	U1	TSS721ADR	SOIC127P600X175-16N	
2	U2-U3	EL357NC-TA-G	EL357NCTAG	
1	U4	CP2102N	QFN50P500X500X100-29N-D	€3,000
1	U5	AMS1117-3V3	SOT223-4	€0,300
1	U6	ESP-WROOM-32	ESP32-S	€4,000
1	U7	HTE501	DFN-8 HTE501	€2,000
Sub-totals:				€9,300

2 Transistors

<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
2	Q1-Q2	BC846B	SOT23	€0,080
Sub-totals:				€0,160
8 Diodes				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
2	D1,D4	LED	0805	€0,100
6	D2-D3,D5-D8	NZL5V6AXV3T1G	SOTFL50P160X80-3N	€0,080
Sub-totals:				€0,680
1 Ferrite Beads				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	FB1	1k@100MHz	0805	€0,200
Sub-totals:				€0,200
5 Connectors				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	J1	PHOENIX_1759017	1759017	€1,200
1	J2	101181920001LF	AMPHENOL_101181920001LF	€0,400
1	J3	CONN-SIL8	CONN-SIL8	€0,100
1	J4	CONN-SIL2	CONN-SIL2	€0,100
1	J5	MICRSO SD SLOT	MEM20750014001A	€0,100
Sub-totals:				€1,900
2 Switches				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	SW1	EN	2-PIN TACTILE SWITCH	€0,200
1	SW2	BOOT	2-PIN TACTILE SWITCH	€0,200
Sub-totals:				€0,400
6 Miscellaneous				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
6	TP1-TP6	TESTPAD	TP_CIRCLE	
Sub-totals:				€0,000
6 Additional Cost				
<u>Quantity</u>	<u>References</u>	<u>Value</u>	<u>PCB Package</u>	<u>Unit Cost</u>
1	CT1	E-Test	NULL	€10,000
1	CT2	MIKROE M-Bus Board (inkl. Versand)	NULL	€32,000
1	CT3	Bestücken/Löten (ca. 2h)	NULL	€60,000
1	CT4	Versand (Österreich)	NULL	€6,900
1	CT5	Kabel+RJ12 Adapter	NULL	€3,000
1	CT6	PCB (ENIG)	NULL	€4,900
Sub-totals:				€116,800
Totals:				€130,110

Donnerstag, 16. März 2023 20:14:38