

SUSIC Parts List (in recommended order of assembly)

Qty.	Symbol	Description
1	R1	10K Ω resistor [brown-black-orange]
4	R2-R5	330 Ω resistors [orange-orange-brown]
1	R6	1.0K Ω resistor [brown-black-red]
1	D1	1A, 200V diode (Jameco 76961 or Digi-Key 1N4002)
1	S1	40-pin DIP socket (Jameco 112310)
4	S2-S5	20-pin DIP sockets (Jameco 112248)
1	RN1	2.2K Ω SIP 7-element SIP resistor network (Digi-Key 770-81-R2.2K)
1	RN2	2.2K Ω SIP 5-element SIP resistor network (Digi-Key 770-61-R2.2K)
1	SW1	7-segment DIP switch (Digi-Key CT2067)
1	SW2	4-segment DIP switch (Digi-Key CT2064)
2	H4, H5	12-pin side entry connectors (Mouser 538-09-52-3121)
9	C0-C8	.1 μ F, 50V monolithic capacitors (JDR .1UF-MONO)
2	C9, C10	18pF, 100V monolithic ceramic disk capacitors (Digi-Key P4840)
2	C11, C12	2.2 μ F, 16V tantalum capacitors (Jameco 94001)
1	C13	10 μ F, 16V tantalum capacitor (Jameco 94060)
1	L1	Diffused green T1 $\frac{3}{4}$ size LED (Digi-Key P303)
1	L2	Diffused amber T1 $\frac{3}{4}$ size LED (Digi-Key P306)
1	L3	Diffused red T1 $\frac{3}{4}$ size LED (Digi-Key P300)
1	XL1	18.432mHz crystal (Digi-Key X179)
1	U1	Microcontroller PIC16F877-20/P with USIC programmed FLASH Memory (JLC U1B)
3	U2-U4	74LS244 octal buffer/drivers, non-inverting (Jameco 47183)
1	U5	74LS541 octal buffer/driver, non-inverting (Jameco 47870)

Used only for RS-485 and RS422

2	S6, S7	8-pin DIP sockets (Jameco 112205)
2	H1, H2	5-pin straight headers (cut from 24-pin straight header – Mouser 538-26-48-1241)
2	U6, U7	RS485 transceivers (Digi-Key MAX487CPA)

Used only for RS-232C

1	S8	16-pin DIP socket (Jameco 112221)
5	C14, C18	1.0 μ F, 35V tantalum capacitors (Jameco 33662)
1	H3	3-pin straight header (cut from 24-pin straight header – Mouser 538-26-48-1241)
1	U8	Dual RS232 transmitter & receiver (Digi-Key MAX232CPE or Jameco 24811)

Mating connectors for Super USIC cable to computer

1 or 2	—	One 3-pin terminal housing for RS232 or two 5-pin terminal housings for RS485/RS422 (cut from 12-pin terminal housing header – Mouser 538-09-50-3121)
3 or 10	—	Crimp terminals (Mouser 538-08-50-0106 for wire sizes 18-20 or 538-08-50-0108 for wire sizes 22-26)

Author's recommendations for suppliers given in parentheses above with part numbers where applicable. Equivalent parts may be substituted. Resistors are $\frac{1}{4}W$, 5 percent and color codes are given in brackets.