Tauntek OSCar MIDI Interface V2 Parts List Edited R Grieb 7/25/2024

Ref	Qty	Description	Digikey Part #	Mouser Part #
U1	1	Z80A (or NEC D780C-1) microprocessor (Z84C0006PEC seems to work fine, BTW)	---	---
U2	1	27C256 32Kx8 CMOS EPROM, 150-250 access is probably safest.	---	---
U3	1	Alliance AS6C62256-55PCN 32Kx8 55nSec (or 70nS) SRAM NOTE: Some people have had problems that may be related to using such a fast access time SRAM in the OSCar. It may be safer to use slower parts like NEC upd43256-12L or -12LL, or -10L or -10LL from ebay. These may be less sensitive to noise on the OSCar pcb.	1450-1033	AS6C62256-55PCN or AS6C62256A-70PIN
U4	1	MC68B50 ACIA Note: 6850 and 6850A (slower parts) are also OK	---	---
U5	1	74LS93 (not 293), possibly HCT93	296-3750-5-ND	595-SN74LS93N
U6,U7	2	74LS02	296-1627-5-ND	595-SN74LS02N
U8	1	74LS08	296-1633-5-ND	595-SN74LS08N
U9	1	74LS14	296-1643-5-ND	595-SN74LS14N
U10	1	MPC100-460DI/TO, supervisor IC Note: This part is available with two different pinouts, "D" and "H". My board was laid out for the "D" part. Be careful when ordering to get the correct one.		
ISO1	1	6N138 opto-isolator	859-6N138M	
Q1	1	2N3904 or equivalent NPN EBC	2N3904FS	
D1	1	1N4148	1N4148FS	
D2,D3	0/2	1N4148 (only needed if you choose to connect a non-rechargeable battery directly to the MIDI board)	1N4148FS	
D9	0/1	5.1Volt Zener diode, 500mW (Not needed if D9 is installed on OSCar processor board, or if you are using D2 and D3)		

R5	0/1	0 Ohm resistor, or wire jumper, (Not installed if you are using D2, D3 and a battery wired directly to the MIDI board.	0.0QBK
R1,R8-11	5	220 ohm, 1/4W 5% resistor	220QBK
R2,R4,R7, R13,R14	5	4.7K, 1/4W 5% resistor	4.7KQBK
R3	1	1.0K, 1/4W 5% resistor	1.0KQBK
R6,R12		not used	
R15	1	0 ohm, only used if U10 not installed (can be either a 0 ohm resistor, or simply a wire)	0.0QBK
R15	1	0 ohm, (resistor or simply a wire) (Not used if you choose to connect a non-rechargeable battery directly to the MIDI board)	0.0QBK
C1-C9	9	0.1 uF 25V (or 50V) ceramic capacitor	BC1148CT or equiv
C10	1	10uF (not 2.2uF) 16V electrolytic cap	493-16007-ND
Hdr1	1	8-pin rt angle header, 0.1" spacing 68016-208HLF, MIDI jack connections	609-3321-ND
Housing	1	3-position female plastic housing to mate with Hdr1 for MIDI out wires Molex #0022013037 You will also need 2-pos version for MIDI in jack wires (0022013027) and a second 3-position one if you have a MIDI thru jack Alternatively, you could put all 8 wires from the MIDI jacks into one 8-position housing.	900-0022013037
		Contacts for these housings Mfr #0008500032	WM2623-ND

Misc	1	40-pin mach pin IC socket for Z80A I used the lowest one I could find	ED90059
	2	28-pin mach pin IC sockets for EPROM and RAM.	ED90057
	1	24-pin mach pin IC sockets for 6850	ED90056
		14-pin and 8 pin IC sockets	

Three possible MIDI pcb to processor pcb connection schemes:

S1,P1		Single row header, 0.1" spacing Sullins PBC36SFAN 2x12 + 2x20 needed These mount on the underside of the new MIDI board.	Part of S1211E-36
	2	12-pos female header, 0.1" pitch Sullins PPPC121LFBN-RC (for CPU) These mount on the OSCar processor pcb after you remove the blue IC socket.	S7045
	2	20-pos female header, 0.1" pitch Sullins PPPC201LFBN-RC (for SRAM) These mount on the OSCar processor pcb after you remove the blue IC socket.	S7053
		This is the scheme I used, as the processor pcb already had the female headers mounted on it. I think this is the best scheme.	

or:

	2	headers TS-120-G-A (CPU)	SAM1111-20-ND
	2	headers TS-112-G-A (SRAM)	SAM1111-12-ND
		These would mate with machined-pin IC	

sockets installed on the processor board.
Need to check for adequate height under MIDI
board using this scheme.

or: 24-pin and 40-pin machined-pin IC sockets
with solid core wires or cut off resistor
leads soldered into them and soldered to
MIDI pcb, plugged into machined-pin
IC sockets on processor pcb.
This scheme allows adjusting the height of
the MIDI board by changing the length of the
wires from the MIDI board to the sockets,
but requires soldering wires into IC sockets,
which has to be done very carefully to avoid
melting them.