

Bill Of Materials										
ZX Spectrum Harlequin 48k Rev.G										
Tom Major 11/2020										
Category	Part	Pins	Quantity	Mouse#	Reichelt#	Manufacturer	Description	Unit price [€]	Sum price [€]	Comments
IC	Z84C0010PEG	40	1	692-Z84C0010PEG		Zilog	Z84C00 CMOS Z80 CPU	4,51	4,51	
IC	AS6C62256-55PCN	28	2	913-AS6C62256-55PCN		Alliance Memory	SRAM 256K, 2.7-5.5V, 55ns 32K x 8 Asynch SRAM	2,29	4,58	
IC	AT28C256-15PU	28	1	1556-AT28C25615PU	27C256-100	Atmel / ST	(E)EPROM 256K 32Kx8 150/100 ns 4.5V-5.5V	3,02	3,02	take either the EEPROM or the EPROM (cheaper)
IC	AD724JRZ	SMD16	1	584-AD724JRZ		Analog Devices	RGB to NTSC/PAL Encoder	13,95	13,95	
IC	LM2596SX-5.0/NOPB	TO-263-5	1	926-LM2596SX-5.0NOPB		TI	LM2596 150-kHz 3-A Step-Down Voltage Regulator	4,30	4,30	
IC	TL712CP	8	1	1595-TL712CP		TI	Differential Comparator	2,04	2,04	
IC	74HC00	14	3	595-SN74HC00N		TI	Quadruple 2-Input Positive-NAND Gates	0,48	1,44	
IC	74HC04	14	1	1595-SN74HC04N		TI	Hex Inverters	0,51	0,51	
IC	74HC08	14	4	595-SN74HC08N		TI	Quadruple 2-Input Positive-AND Gates	0,48	1,92	
IC	74HC32	14	5	595-SN74HC32N		TI	Quadruple 2-Input Positive-OR Gates	0,48	2,40	
IC	74HC74	14	4	595-SN74HC74N		TI	Dual D-Type Positive-Edge-Triggered Flip-Flops	0,48	1,92	
IC	74HC86	14	1	1595-SN74HC86N		TI	Quadruple 2-Input Exclusive-Or Gates	0,40	0,40	
IC	74HC138	16	3	595-SN74HC138N		TI	3-Line To 8-Line Decoders/Demultiplexers	0,40	1,20	
IC	74HC161	16	3	595-SN74HC161N		TI	4-Bit Synchronous Binary Counters	0,52	1,56	
IC	74HC166	16	1	1595-SN74HC166N		TI	8-Bit Parallel-Load Shift Registers	0,44	0,44	
IC	74HC174	16	1	595-SN74HC174N		TI	Hex D-Type Flip-Flop With Clear	0,45	0,45	
IC	74HC245	20	3	595-SN74HC245N		TI	Octal Bus Transceivers With 3-State Outputs	0,48	1,44	
IC	74HC253	16	2	595-SN74HC253N		TI	Dual 4-Line to 1-Line Data Selectors/Multiplexers With 3-State	0,53	1,06	
IC	74HC257	16	2	595-SN74HC257N		TI	Quadruple 2-Line to 1-Line Data Selectors/Multiplexers With 3-State	0,52	1,04	
IC	74HC541	20	1	595-SN74HC541N		TI	Octal Buffers and Line Drivers With 3-State Outputs	0,51	0,51	
IC	74HC574	20	3	595-SN74HC574N		TI	Octal Edge-Triggered D-Type Flip-Flop With 3-State Outputs	0,47	1,41	
IC	74HC4040	16	4	595-SN74HC4040N		TI	12-Bit Asynchronous Binary Counters	0,52	2,08	
IC								52,18		
Socket	Precision IC-Socket 8	8	1	MPE 001-1-008-3			001-1-008-3-B1STF-XTO	0,25	0,25	
Socket	Precision IC-Socket 14	14	18	MPE 001-1-014-3			001-1-014-3-B1STF-XTO	0,30	5,40	
Socket	Precision IC-Socket 16	16	17	MPE 001-1-016-3			001-1-016-3-B1STF-XTO	0,34	5,78	
Socket	Precision IC-Socket 20	20	7	MPE 001-2-020-3			001-2-020-3-B1STF-XTO	0,44	3,08	
Socket	Precision IC-Socket 28	28	3	MPE 001-2-028-6			001-2-028-6-B1STF-XTO	0,58	1,74	
Socket	Precision IC-Socket 40	40	1	MPE 001-2-040-6			001-2-040-6-B1STF-XTO	0,89	0,89	
Socket								17,14		
T	BC547BBU	5	512-BC547BBU		ON Semi. / Fairchild	NPN, 45V, 0,1A, 0,5W, 300MHz	0,19	0,95		
T	2SA1175 / 2SA933	8	SA 933	NEC / Rohm		PNP, 50V, 0,1A, 0,25W, 180MHz	0,28	2,24	2SA1175 seems hard to get, SA933 is a replacement	
D	1N4148	1	78-1N4148-TAP	Vishay		Small Signal Diode	0,09	0,09		
D	1N4740A	1	78-1N4740A-TAP	Vishay		Zener Diode 10V 1W 5%	0,25	0,25		
D	1N4742A	1	78-1N4742A-TAP	Vishay		Zener Diode 12V 1W 5%	0,25	0,25		
D	1N5822-E3/54	1	625-1N5822-E3	Vishay		Schottky Diode 3A 40V	0,37	0,37		
D	SB240S-E3/54	1	625-SB240S-E3	Vishay		Schottky Diode 2A 40V	0,44	0,44	I use 1 diode instead of Bridge Rectifier D12/2W10	
T,D								4,59		
Q	XT9520ANA4M433619	1	73-XT49S443-20	Vishay		Quarz 4.433619MHz HC49/U-S	0,44	0,44		
Q	Quarz 14MHz HC49/U-S	1	14,0000-HC49U-S			Quarz 14MHz HC49/U-S	0,24	0,24		
L	Inductor 68u	1	652-SRR1280-680M	Bourns		Shielded SMD Power Inductor 68u 2,4A, 0,12Ohm	0,88	0,88		
SP	SM230332-1	1	497-SM230332-1	DB Unlimited		Speaker 23mm, 32Ohm, 80mW	2,31	2,31		
CON	MD-80SM	1	490-MD-80SM	CUI Devices		MINI DIN CONNECTOR, PCB mount jack 8pin	1,90	1,90		
CON	MD-80	1	490-MD-80	CUI Devices		MINI DIN CONNECTOR 8pin	2,40	2,40	optional, if you need a video plug connector	
CON	S11-3525N	2	490-S11-3525N	CUI Devices		3.5 MM AUDIO JACK, tip and ring switch	0,68	1,36		
CON	161-0360-E	1	161-0360-E	Kobiconn		Right Angle RCA PCB Mount Phono Jack white	0,86	0,86		
CON	KLDX-0202-A	1	806-KLDX-0202-A	Kycon		PCB Mount DC Power Jack 6,3mm 2mm	0,49	0,49		
CON	5-520315-5	1	571-5-520315-5	TE Connectivity		FFC / FPC Vertical Cable Entry 5 pin	0,44	0,44		
CON	5-520315-8	1	571-5-520315-8	TE Connectivity		FFC / FPC Vertical Cable Entry 8 pin	0,99	0,99		
Q,L,SP,CON							12,31			
RA	4116R-1-471LF	1	652-4116R-1LF-470	Bourns		Resistor Array 16pin 470Ohm Isolated	0,96	0,96	U47	
RA	4309R-101-472LF	1	652-4309R-1LF-4,7K	Bourns		Resistor Array 9pin 4,7k Bussed	0,99	0,99	R13	
RA	4309R-101-103LF	2	652-4309R-1LF-10K	Bourns		Resistor Array 9pin 10k Bussed	1,04	2,08	R1,R2	
R	MFR-25FTE52-68R	6	603-MFR-25FTE52-68R	Yageo		R 68 Metal Film 1%	0,11	0,66		
R	MFR-25FTE52-75R	4	603-MFR-25FTE52-75R	Yageo		R 75 Metal Film 1%	0,11	0,44		
R	MFR-25FTE52-150R	1	603-MFR-25FTE52-150R	Yageo		R 150 Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-270R	3	603-MFR-25FTE52-270R	Yageo		R 270 Metal Film 1%	0,11	0,33		
R	MFR-25FTE52-470R	5	603-MFR-25FTE52-470R	Yageo		R 470 Metal Film 1%	0,11	0,55		
R	MFR-25FTE52-2K2	3	603-MFR-25FTE52-2K2	Yageo		R 2.2k Metal Film 1%	0,11	0,33		
R	MFR-25FTE52-2K7	1	603-MFR-25FTE52-2K7	Yageo		R 2.7k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-3K9	3	603-MFR-25FTE52-3K9	Yageo		R 3.9k Metal Film 1%	0,11	0,33		
R	MFR-25FTE52-4K7	1	603-MFR-25FTE52-4K7	Yageo		R 4.7k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-10K	8	603-MFR-25FTE52-10K	Yageo		R 10k Metal Film 1%	0,11	0,88		
R	MFR-25FTE52-12K	3	603-MFR-25FTE52-12K	Yageo		R 12k Metal Film 1%	0,11	0,33		
R	MFR-25FTE52-18K	3	603-MFR-25FTE52-18K	Yageo		R 18k Metal Film 1%	0,11	0,33		
R	MFR-25FTE52-22K	1	603-MFR-25FTE52-22K	Yageo		R 22k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-33K	1	603-MFR-25FTE52-33K	Yageo		R 33k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-100K	1	603-MFR-25FTE52-100K	Yageo		R 100k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-470K	1	603-MFR-25FTE52-470K	Yageo		R 470k Metal Film 1%	0,11	0,11		
R	MFR-25FTE52-4M7	1	603-MFR-25FTE52-4M7	Y						