

Ref Name	Qty	Component	Value	Package	Manufacturer	Reichelt Part Nr	Farnell Part Nr	Digikey Part Nr	Voelkner	Description
T1	1	BC337	BC337	TO92A		BC337-25/40	1574379			NPN TRANSISTOR (EBC-pinout)
OK1, OK2	2	6N136	6N136, HCPL4502	DIL		6N136	1469469	160-1787-ND		Opto Coupler with open collector
IC4	1	78XXS	78L05	TO92						VOLTAGE REGULATOR
J1	1	520250-3		520250-3			1536490	AE10383-ND	Econ Connect MEB6/6PL Y726811	Modular Jack R12 6/6, THT, Low Profile
C3, C4	2	C2,5-3	10p	C025					TC-K10PF2	only if Quartz at X1 ,CAPACITOR, THT, RM2.5
C13, C15, C16	3	C2,5-3	100n	C025						CAPACITOR, THT, RM2.5
C14	1	CPOL_RM2_D5	1µF	E2_D5		RAD 1/63				ELECTROLYTIC CAPACITOR grid 2mm, diameter 5mm
C12	1	CPOL_RM2_D5	4.7µ	E2_D5		RAD 4,7/35				ELECTROLYTIC CAPACITOR grid 2mm, diameter 5mm
C11	1	CPOL_RM2.5_D7	47uF/35V	THT		RAD 47/35				ELECTROLYTIC CAPACITOR grid 2.54 mm, diameter 7 mm
D4, D5	2	Diode bedrahtet	1N4148	diod04		1N 4148	2322485	1N4148FS-ND		Diode
R17	1	FUSE PTC RM5	PTC/100mA	THT		PFRA 010	9350365	MF-R010-ND		PTC
JP1, JP2, JP3, JP4	4	JP1E		Octa-Pads						JUMPER
D7	1	LED3MM	LED3MM	3mm						LED3 mm, round, ca. 1000mcd
D3	1	LED3MM	LED3MM	3mm						LED3 mm, round, ca. 1000mcd
D2	1	LED3MM	LED3MM	3mm						LED3 mm, round, ca. 1000mcd
IC2	1	LM317X	LM317L	TO92		LM 317 LZ				VOLTAGE REGULATOR
IC3	1	LM393N	LM393N	DIL		LM 393 DIP		LM393NGOS-ND		COMPARATOR
IC1	1	PIC16873DIL28-3	PIC16F873	DIL28-3		PIC 16F873A-I/SP	9761098	PIC16F873A-I/SP-ND		MICROCONTROLLER flash type
IC5	1	POLOLU_CP2104		DIL	Pololu CP2104					Pololu USB-Serial-Adapter Carrier
R8, R18, R21	3	R-EU_0204/7	2k2	0204/7						RESISTOR, THT
R16	1	R-EU_0204/7	3k3	0204/7						RESISTOR, THT
R7, R11, R14	3	R-EU_0204/7	4K7	0204/7						RESISTOR, THT
R4, R9	2	R-EU_0204/7	10K	0204/7						RESISTOR, THT
R3, R5, R12, R13, R15	5	R-EU_0204/7	22K	0204/7						RESISTOR, THT
R22	1	R-EU_0204/7	82R	0204/7						RESISTOR, THT
R6	1	R-EU_0204/7	150K	0204/7						RESISTOR, THT
R2	1	R-EU_0204/7	220K	0204/7						RESISTOR, THT
R15	1	R-EU_0204/7	560R	0204/7						RESISTOR, THT
R10	1	R-EU_0204/7	680R	0204/7						RESISTOR, THT
X1	1	RESOX909"	20MHz	X909-ND			7944068	X909-ND		Resonator X909, CSTLS20M0X53-B0, ZTT-20.00MX
Alternativ		QUARTZ	20MHz			20,0000-HC49U-S	1611715	300-6042-ND		Quartz
	1	Case				SP 2090 SW				