

		PART LIST	MC – Micro Controller components		PS – Power supply components
		TX – Transmitter circuit comps.	AT – Antenna tuning comps.		ALL – Components available to all boards.
			FDX – Full Duplex circuit components		HDX – Half duplex circuit components
Section	Qty	Part Category	Description / Value / Specifier	Status	Circuit Designator
PS	1	Fuse, 5A, fast, PCB mount	5A fast	Firm	F1
PS	1	Ind, coil, common mode choke	60uH 3.3A choke	Firm	L8
PS	1	Cap, SMT, 0.1µF, 0603, 50V, 20%, ceramic	100n 50V	Firm	C60
PS	2	Cap, THT, 1000µF, radial, 25V, 10mm, 10%, electrolytic	1000uF	Firm	C90,91
PS	1	Tran, NPN	BC847	Firm	Q14
PS	1	IC, THT, Regulator, 1A adjustable, automotive	LM2941CT	Firm	U13
PS	1	Heatsink	Heatsink	Firm	HS1
PS	2	Res, SMT, 1K, 0603, 5%, carbon film	1K	Firm	R71,72
PS	1	Res, SMT, 6K8, 0603, 5%, carbon film	6K8	Firm	R70
PS	1	Res, SMT, 33K, 0603, 5%, carbon film	33K	Firm	R68
TX	1	Res, SMT, 2R2, 0603, 5%	2R2	Firm	R75
PS	1	Dio, power, 1A Si	PRLL4002	Firm	Z2
TX	2	Res, SMT, 0R68, 2512, 5%, carbon film	0R68	Firm	R63,66
TX	2	Res, SMT, 10R, 0603, 5%	10R	Firm	R64,67
TX	4	Res, SMT, 1K, 0603, 5%	1K	Firm	R62,65,30, 42
TX	4	Cap, SMT, 0.01µF, 0603, 16V, 20%, ceramic	10n	Firm	C73,74, C49, C50
TX	2	Cap, THT, 8200pF, axial, 100V, 10%, polyester	8n2	N/C	C80,92
TX	2	Cap, SMT, 0.1µF, 0603, 16V, 20%, ceramic	100n	Firm	C58,59
TX	1	Cap, THT, 1000µ, radial, 25V, 10mm, 10%, electrolytic	1000uF	Firm	C89
TX	2	Tran, SMT, MOSFET	NDT3055L	Firm	Q10,11
TX	1	IC, THT, 1.5A DUAL MOSFET DRIVER	TC4428(COA/EOA = TEMP RANGE DIFF)	Firm	U12
TX	4	Dio, SMT, Signal, BAS16, SOT-23	BAS16	Firm	D8,D9,D7,D2

AT	8	Tran, THT, MOSFET	IRF740	Firm	Q2,3,4,5,6,7,8,9
AT	1	Cap, THT, 470pF, axial, 250V, 5%, polypropylene	470p	Firm	C85
AT	1	Cap, THT, 1000pF, axial, 250V, 5%, polypropylene	1n KT347	Firm	C83
AT	2	Cap, SMT, 1500pF, 0603, 50V, 20%, ceramic	1n5 50V	Firm	C87,88
AT	1	Cap, THT, 2200pF, axial, 250V, 5%, polypropylene	2n2 KT347	Firm	C82
AT	1	Cap, THT, 4700pF, axial, 250V, 5%, polypropylene	4n7 KT347	Firm	C81
AT	1	Cap, THT, 0.01μF, axial, 250V, 5%, polypropylene	10n	Firm	C65
AT	6	Cap, SMT, 0.01μF, 0603, 50V, 20%, ceramic	10n 50V	Firm	C64,66,67,68,69,70
AT	1	Cap, THT, 0.01μF, axial, 250V, 10%, polypropylene	10n	Firm	C79
AT	1	Cap, THT, 0.022μF, axial, 250V, 5%, polypropylene	22n , MKP 479	Firm	C78
AT	1	Cap, THT, 0.047μF, axial, 250V, 5%, polypropylene	47nF	Firm	C57
AT	1	Cap, THT, 0.1μF, axial, 250V, 5%, polypropylene	100nF	N/C	C86
AT	2	Res, THT, 10R, axial, 10mm, 5%, 0.25W	10R	Firm	R60,61
AT	1	Res, THT, 100R, axial, 15mm, 5%, 0.5W	100R	Firm	R50
AT	8	Res, THT, 47K, axial, 10mm, 5%, 0.25W, 250V	47K	Firm	R51,52,53,54,55,56,57,58
AT	2	Cap, THT, ???, axial,		N/C	C71,72
HDX	1	Res, SMT, 470R, 0603, 5%	470R	Firm	R1
HDX	4	Res, SMT, 1K, 0603, 5%	1K	Firm	R17,21,27,34
HDX	1	Res, SMT, 33K, 0603, 5%	33K	Firm	R59
HDX	4	Res, SMT, 330K, 0603, 5%	330K	Firm	R45,46,47,48
HDX	2	Res, SMT, 470K, 0603, 5%	470K	Firm	R73,74
HDX	1	Res, SMT, 5%	??	N/C	R44
HDX	1	Cap, SMT, 68pF, 0603, 16V, 20%, ceramic	68p	Firm	C42
HDX	3	Cap, SMT, 68pF, 0603, 16V, 20%, ceramic	68p	N/C	C43,44,45
HDX	3	Cap, SMT, 150pF, 0603, 16V, 20%, ceramic	150p	Firm	C46,47,48
HDX	1	Cap, THT, 820pF, axial, 250V, 1%, 5mm, polystyrene	820pF	Firm	C40

HDX	1	Cap, THT, 680pF, axial, 160V, 2%, 5mm, polystyrene	680pF	Firm	C77
HDX	1	Cap, SMT, 180pF, 0603, 16V, 20%, ceramic	180p	Firm	C41
HDX	1	Cap, THT, 1500pF, axial, 160V, 5mm, 2% polystyrene	1500p	Firm	C76
HDX	1	Cap, SMT, 0.01μF, 0603, 50V, 20%, ceramic	10n 50V	Firm	C63
HDX	1	Cap, THT, 1500pF, radial, 100V, 5mm, 5%, polypropylene	1500p	Firm	C75
HDX	1	Cap, SMT, 0.1μF, 0603, 16V, 10% ceramic	100n 250V	Firm	C39
HDX	1	Cap, SMT, 10μ, TANTB, 16V, 20%, tantalum	10u +	Firm	C51
HDX	2	Ind, coil, RF	TOKO-10EZ	Firm	L6,7
HDX	2	Dio, Double	BAV23	Firm	D4,5
HDX	1	Dio, Double	BAV99	Firm	D3
HDX	1	IC, Hex inverter chip	HEF4069UBT	Firm	U2
FDX	1	Res, SMT, 100R, 0603, 5%	100R	Firm	R22
FDX	1	Res, SMT, 2K2, 0603, 5%	2K2	Firm	R28
FDX	1	Res, SMT, 3K3, 0603, 5%	3K3	Firm	R19
FDX	3	Res, SMT, 4K7, 0603, 5%	4K7	Firm	R9,32,31
FDX	1	Res, SMT, 15K, 0603, 5%	15K	Firm	R25
FDX	1	Res, SMT, 22K, 0603, 5%	22K	Firm	R12
FDX	1	Res, SMT, 33K, 0603, 5%	33K	Firm	R29
FDX	1	Res, SMT, 47K, 0603, 5%	47K	Firm	R8
FDX	3	Res, SMT, 100K, 0603, 5%	100K	Firm	R33,35,41
FDX	2	Res, SMT, 220K, 0603, 5%	220K	Firm	R2,40
FDX	1	Res, SMT, 10K, 0603, 5%	10K	Firm	R24
FDX	1	Cap, SMT, 68pF, 0603, 16V, 20%, ceramic	68p	Firm	C14
FDX	1	Cap, SMT, 180pF, 0603, 16V, 20%, ceramic	180p	Firm	C26
FDX	2	Cap, SMT, 4700pF, 0603, 16V, 20%, ceramic	4n7	Firm	C13,17
FDX	2	Cap, SMT, 0.01μF, 0603, 16V, 20%, ceramic	10n	Firm	C30,36

FDX	1	Cap, THT, 0.01μF, axial, 250V, 10%, 7.5mm, met. polyester	10n	Firm	C8
FDX	1	Cap, THT, 0.1μF, axial, 250V, 10%, 5mm, met. polyester	100n	Firm	C7
FDX	1	Cap, SMT, 0.22μF, 0603, 16V, 20%, ceramic	220n	Firm	C29
FDX	2	Cap, SMT, 1μ, 1206, 16V, 20%, ceramic	1u	Firm	C16,31
FDX	1	Cap, SMT, 4μ7, 1206, 16V, 20%, ceramic	4u7	Firm	C22
FDX	2	Cap, SMT, 100μ, TANTD, 10V, 20%, tantalum	100u	Firm	C18,32
FDX	4	Cap, SMT, ???? , 0603, 16V, 20%, ceramic	??	N/C	C12,15,19,24
FDX	2	Cap, SMT, ???, 0603, 16V, 20%, ceramic	??	N/C	C21, C27
FDX	1	Dio Schottky	BAR43	Firm	D6
FDX	1	Tran, SMT, FET	BSS138	Firm	Q1
FDX	2	IC, Dual OpAmp	MC33077	Firm	U4,8
MC	4	Res, SMT, 330R, 0603, 5%	330R	Firm	R5,6,11,18
MC	5	Res, SMT, 1K, 0603, 5%	1K	Firm	R3,7,23,37,43
MC	2	Res, SMT, 3K3, 0603, 5%	3K3	Firm	R20,26
MC	1	Res, SMT, 4K7, 0603, 5%	4K7	Firm	R10
MC	2	Res, SMT, 100K, 0603, 5%	100K	Firm	R15, R69
MC	1	Res, SMT, 220K, 0603, 5%	220K	Firm	R14
MC	1	Res, SMT, 1M, 0603, 5%	1M	Firm	R38
MC		Res, SMT, 5%	??	N/C	R36
MC	2	Cap, SMT, 27pF, 0603, 16V, 20%, ceramic	27p	Firm	C33,35
MC	18	Cap, SMT, 0.1μF, 0603, 16V, 20%, ceramic	100n	Firm	C1,2,3,4,11,20,23,25,28,34,37,38,52,53,54,55,56
MC	1	Cap, SMT, 10μ, TANTB, 16V, 20%, tantalum	10u	Firm	C10
MC		Cap, SMT, ???? , 0603, 16V, 20%, ceramic	??	N/C	C5,9
MC	1	Ind, coil, 300mA	10uH	Firm	L1
MC	1	Diode, LED, 3mm Green	LED	N/C	I1
MC	1	Xtal, 17.1776MHz, HC49SMD	17.1776MHz	Firm	X2

MC	1	Dio, Rectifier	GF1A	Firm	D1
MC	1	Dio, Zener	BZX845V1	Firm	Z3
MC	1	IC, Hex inverter	NC7S04	Firm	U9
MC	1	IC	74HC1G04	N/C	U10
MC	1	IC, Binary Counter	74HC4040	Firm	U11
MC	1	IC, RS232 Line driver	MAX202ECSE	Firm	U6
MC	1	IC, 2-input NAND gates	74HC00	Firm	U5
MC	1	IC, Voltage Regulator	L4931CPT50	Firm	U3
MC	1	IC, 8-bit Microcontroller	ATMEGA16-16AC	Firm	U1
MC	1	IC, RISC Microcontroller	AT90S2313-10SC	Firm	U7
MC	2	Con, header, 2.54mm, 3x2	3 x 2 Header	Firm	H1,2
MC	1	Con, header, 2.54mm, 7x1	7 x 1 Header	Firm	H3
MC	1	Con, header, 2.54mm, 8x2	8 X 2 Header	Firm	PCB1
MC	1	Resistor 220R			
ALL	2	Con, 6 way, right angle, 6A	Molex Mini Fit 2 x 3	Firm	CON1, CON2
ALL	2	Cap 680pF			
ALL	2	Cap 680pF 250V TH			C100,C101
ALL	1	Cap 1nF			C102
PS	1	Screw, Pan, pozi, S/S 304	M3 x 10mm	Firm	
PS	1	Was, flat, S/S 304	M3	Firm	
PS	1	Was, lock, external star, S/S 304	M3	Firm	
PS	1	Nut, full, S/S 304	M3	Firm	
MC	1	Diode, LED, 3mm RED	LED	N/C	I2
MC	2	Dio, LED, SMD RED	LED	Firm	I0,3
ALL	2	Test pin red		N/C	J??

ALL	2	Test pin black		N/C	J??
TX	2	Res, THT, 1R5, axial, 15mm, 5%, 2W	1R5	Firm	R77, R78
HDX	2	Ind, high Q, 10%	10μH	Firm	L9,L10
TX	1	Res, SMT, 10K, 0603, 5%	10K	Firm	R76
MC	1	Bpr, 12mm dia	Mini Buzzer	tbv	B1
FDX	1	Cap, SMT, 10n, 0603, 16V, 20%, ceramic	10n	Firm	C21
FDX	1	Cap, SMT, 220pF, 0603, 16V, 20%, ceramic	220p	Firm	C27
AT	1	Cap, THT, 0.1μF, axial, 250V, 5%, polypropylene	100nF	N/C	C57
TX	2	Cap, 1500pF, 250V, 10%, polypropylene	1500p	Firm	C80A, C92A
MC	1	Res, SMT, 4K7, 0603, 5%	4K7	Firm	R49
MC	1	Res, SMT, 1K, 0603, 5%	1K	Firm	R16
TX	1	Tran, NPN	BC847	Firm	Q12
HDX	2	Cap		N/C	C84, C93, C94
MC	1	Thermistor 100k NTC	100K	Firm	TH1
MC	1	Dio, Zener	BZX845V1	N/C	Z1
ALL	1	PCB, Race Reader		Firm	
ALL	1	CasP 0101, Rear, Polycarbonate Macroblend, grey case			
ALL	1	CasP, 0101, Front, Polycarbonate Macroblend, grey case, drilled & spray			
ALL	1	Con, 3 pole, panel mount, male, 18.2mm square M/hole, JMR, solder tag, zink al			
ALL	2	Con, 7 pole, panel mount, female, AMP C16-1, solder tag			
ALL	1	Con, 9 pole, panel mount, male, DB9, solder tag, nickel plated			
ALL	2	Con, Cap, female, panel, AMP C16-1			
ALL	2	Nut, M3, full, steel, zink plated			
ALL	8	Scr, self tap, 4g x 1/2", pan, pozi, S/S304			

ALL	5	Scr, self tap, 6g x 1/2", pan, pozi, S/S304			
ALL	2	Spc, hex, tap&stud, 3mm, M3, 10mm, M3, brass, nickel plated			
ALL	40 mm	Wire, 0.71mm, single, tin, no insulation			
ALL	2	Wshr, M3, flat, S/S304			
ALL	2	Wshr, M3, lock, external star, steel, zink plated			
ALL	5	Wshr, M4 x 0.8mm, flat, nylon			
ALL	1	Hldr, Fuse, 20 x 5mm, panel mount, screw, IP66			
ALL	3	Scr, selftap, 4g x 1/4", pan, pozi, steel, zink plated			
ALL	3	Cap, THT, 10nF, radial, 50V, fixed, 2.54mm, X7R, ceramic			
Antenna	1	CasP, 0101, Antenna, front panel, polyurethane, painted			
Antenna	1	CasP, 0101, Antenna, back plate, fibreglass, gel coat			
Antenna	1	Scr, self tap, 4g x 1/2", pan, pozi, S/S304			
Antenna	2	Spc, round, through hole, 3mm, M3, nylon			
Antenna	1	Lab, 0101, front, 215 x 62mm, EDiT ID, Antenna main, GE Lexan HP92W			
Antenna	1	Ins, pad, 96 x 44mm, acrylic, clear			
Antenna	1	Lab, 0101, rear, 140 x 100mm, tuning cavity cover, 0.5mm aluminium			
Antenna	1	Lab, 0101, rear, 55 x 29mm, Serial Number, white, Polyester			
Antenna	5.6 m	Wire, 100 x 0.1mm, copper, clear insulated, fabric, white			
Antenna	2	Cap, THT, 47nF, radial, 250V, fixed, 10mm, 5%, -55°C to +100°C, polypropylene			
Antenna	3	Cap, THT, 10nF, radial, 250V, fixed, 10mm, 5%, -55°C to +100°C, polypropylene			
Antenna	1	Cap, THT, 4.7nF, radial, 250V, fixed, 10mm, 5%, -55°C to +100°C, polypropylene			
Antenna	12	Scr, machine, M4x6mm, pan, slot, brass, nickel plated			
Antenna	12	Wshr, M4, lock, external star, steel, nickel plated			
Antenna	6	Spc, hex, through tap, 10mm, M4, brass, nickel plated			

Antenna	3	Con, 2 pole, 35 x 16mm, flat link, nickel plated brass, 0101			
Antenna	1	PCB, 0101, Antenna tuning			
Antenna	1	Con, Cap, male, in-line, AMP C16-1			
Antenna	6 m	Cab, screened, 6 core, 16 x 0.2mm, grey, PVC, -40°C/+70°C			
Antenna	1	Con, 7 pole, in-line, male, PG9, AMP C16-1, solder tag, strain relief			
Antenna	2	CabA, retention collar, 9mm, white, PVC, -40°C/+70°C			
Antenna	2	Spc, round, through hole, 2mm, M3, nylon			
Antenna	2	Nut, M3, full, steel, zink plated			
Antenna	2	Scr, machine, M3x16mm, countersunk, pozi, steel, zink plated			
Antenna	2	Wshr, M3, lock, internal star, steel, zink plated			
Antenna	150 mm	Hshr, 9.5mm, black, standard, 135°C			
Power lead	3	Cab, figure 8, 2 core, 28 x 0.3mm, red/black, PVC, -40°C/+70°C			
Power lead	1	Con, 1 pole, crocodile clip, red, 6.3mm blade terminal			
Power lead	1	Con, 1 pole, crocodile clip, black, 6.3mm blade terminal			
Power lead	1	Con, 1 pole, inline, male, black, 6.3mm, spade, crimp, steel, shrouded			
Power lead	1	Con, 1 pole, inline, male, red, 6.3mm, spade, crimp, steel, shrouded			
Power lead	1	Con, 1 pole, inline, female, black, 6.3mm, spade, crimp, steel, shrouded			
Power lead	1	Con, 1 pole, inline, female, red, 6.3mm, spade, crimp, steel, shrouded			
Power lead	1	Fuse, 20 x 5mm, (F), LBC, 1.6A, glass			
Power lead	1	Con, 3 pole, inline, female, JMR, solder tag, zink alloy			
	1	Ass, lead, communication, 3m, DB9 female:DB9 female, Null modem			