

QR2S Bill of Material

QTY	Designator	Value
1	PCB	Double layer, blue solder mask
1	J2	3.5mm, Stereo connector
1	J5	BNC connector
1	J4	DC connector DC470H
1	J3	SUBD, 9P, Female, PCB
1		DIL20 socket
1	S1	Switch, front panel DPDT (not supplied)
1	S2	Switch, front panel DPDT (not supplied)
1	K1	Push button, front panel (not supplied)
DIODES I ZENER DIODES		
2	D4, D5	1N4148
1	D3	Zener 400 mW 3V3
1	LD1	LED 3mm - Green
1	LD2	LED 3mm - Red
TRANSISTORS		
4	Q3, Q4, Q5, Q6	2N3904
3	Q1, Q9, Q11	BC546B
1	Q10	BD139
1	Q2	BD140
1	Q12	BDX54
4	Q7, Q13, Q14, Q15*	BS170
1	Q8	IRF510
IC		
3	U5, U6, U8	
1	U17	74HC00
2	U1, U3	74HC04
1	U4	74HC4053
1	U2	74HC4066
1	VR4	7805
1	VR1	7806
2	VR2, VR3	LM317L
1	U13	LM358
4	U9, U10, U11, U12	NE5532A
1	U14	LM335
1	U16	DAC
1	U15	PIC18F14K50
VARICAP		
2	D1, D2	BB208-3
Trimer capacitor		
3	TC1, TC2, TCX	4-20p
Capacitors SMD 0805		
3	C44, C59, C69	10nF
10	C13, C42, C43, C57, C58 , C61, C71, C99, C100, C134	100 nF
Capacitors, ceramic NP0		

2	C56, C103	1p5
1	C101	2p5
1	C87	4p7
1	C138*	10p
1	C55	18p
2	C86, C102	22p
2	C136, C137	27p
1	C121	33p
2	C38, C40	39p
2	C118, C120	47p
1	C110	56p
3	C41, C84	100p
2	C37, C117	120p
3	C53, C104, C119X	150p
1	C54	220p
1	C122	270p
8	C64, C65, C66, C67X, C68, C85, C88, C105	330p
1	C119	470p
1	C39	560p
1	C48	820p
4	C89, C90, C94, C95	1n
Capacitors, ceramic multi layer (X7R)		
5	C108, C114, C124, C125, C140*	10n
44	C2, C4, C5, C6, C8, C9, C11, C12, C15, C17, C18, C20, C23, C24, C25, C27, C29, C31, C33, C35, C45, C46, C47, C49, C51, C60, C70, C72, C82, C106, C107, C109, C111, C112, C113, C115, C123, C126, C127, C128, C129, C130, C131, C133	100nF
1	C139*	2x100nF in parallel
Capacitors USM		
8	C74, C75, C78, C79, C76, C77, C80, C81	100nF
2	C91, C96	bipolar 10uF
Electrolytic capacitors, radial		
21	C7, C10, C14, C16, C19, C21, C22, C26, C28, C30, C32, C34, C36, C52, C83, C92, C93, C97, C98, C132, C135	100u/25
4	C3, C50, C73, C116	220u/25
1	C1	1000u/25
RF Chokes		
1	L8	470nH
2	L6, L7	2u2
9	L1, L2, L3, L4, L5, L9, L11, L12, L12	47uH
SMD resistors 0805		

1	R34	18
2	R33, R35	300
Multi turn trimmer resistors		
1	P3	10k
2	P1, P2	500
Resistors, metal film 1/8 W		
1	R107	2R7
1	R19	10
1	R118*	22
1	R42	33
2	R64, R76	47
1	R20	51
10	R11, R12, R13, R14, R28, R29, R51, R52, R55, R106	100
1	R67	180
6	R3, R21, R22, R43, R44, R84	220
5	R1, R31, R32, R37, R87	270
9	R17, R18, R23, R30, R39, R40, R41, R45, R97	330
1	R114	560
4	R4, R50, R85, R88	680
1	R10	820
9	R15, R16, R25, R47, R62, R74, R95, R98, R116	1k
1	R7	1k2
1	R2	1k5
1	R9	2k2
2	R93, R94	2k7
1	R109	3k3
8	R5, R89, R92, R100, R105, R111, R112, R119*	4k7
2	R108, R117*	6k8
23	R53, R54, R56, R57, R58, R59, R60, R61, R63, R65, R66, R68, R69, R70, R71, R72, R73, R75, R77, R78, R79, R99, R113	10k
1	R115	22k
5	R6, R8, R80, R81, R91	47k
1	R103	56k
1	R86	68k
2	R82, R83	82k
11	R24, R26, R27, R46, R48, R49, R90, R96, R102, R104, R110	100k
Resistors 2W		
1	R101	22/1W
RELAY		
1	RL1	DPDT,12V
Toroids and ferites		
1	L13	FT37-43
2	L15, L16	T50-2
1	T1	

1	FB1	Ferite bead
Crystals		
5	X1, X2, X3, X4, X6	8MHz
1	X7	10.140MHz
1	X5	18.138MHz
1	X8	7.0MHz