

CRKITS.COM CS-xxV Transceiver Kit Part List 20200315 for PCB 20170226

Part	Qty	Comments
Resistors		
10 Ω	4	BRN-BLK-BLK-GLD-BRN
27 Ω	1	RED-VIO-BLK-GLD-BRN
51 Ω	1	GRN-BRN-BLK-GLD-BRN
120 Ω	1	BRN-RED-BLK-BLK-BRN
220 Ω	1	RED-RED-BLK-BLK-BRN
220 Ω 1W	1	RED-RED-BLK-BLK-BRN, Big Size
330 Ω	1	ORG-ORG-BLK-BLK-BRN
680 Ω	1	BLU-GRY-BLK-BLK-BRN
1.5 kΩ	8	BRN-GRN-BLK-BRN-BRN, 1 pcs for LED add
3.3 kΩ	4	ORG-ORG-BLK-BRN-BRN, 1 pcs replace 10k near TUNE potentiometer to have better linearity
10 kΩ	3	BRN-BLK-BLK-RED-BRN
100 kΩ	2	BRN-BLK-BLK-ORG-BRN
10 kΩ trimmer	1	103. Blue and white, 3-pin
10 kΩ potentiometer	2	B10K for both TUNE and IF GAIN.
Capacitors		
2 pF NPO	2	2. Ceramic or monolithic.
68 pF NPO	1	68p. Ceramic or monolithic.
0.01 μF	6	103. Ceramic or monolithic.
0.1 μF	34	104. Ceramic or monolithic.
10 μF 25 V or higher	1	Electrolytic capacitor
100 μF 25 V or higher	2	Electrolytic capacitor
1000 μF 25 V or higher	3	Electrolytic capacitor
50 pF trimmer capacitor	1	9~50 pF range, for BFO tuning
Diodes, Transistors and IC's		
1N4148	6	Glass body. Band is cathode.

Part	Qty	Comments
1N5820-5822	1	Black body. Band is cathode. PCB marking: 1N5820.
BB910	1	Black body, similar to TO-92 transistor. 2-pin. Varicap diode.
LED	1	3mm red LED
C8050 or S8050	1	TO-92 transistor. 3-pin. RX muting.
C3357	1	RE or RF marking. SMD 3-pin. First TX amplifier.
D882 or BD139	1	TO-126 transistor. 3-pin. TX driver amplifier. PCB marking: D882
IRF510	1	TO-220 MOSFET. 3-pin. Final TX amplifier.
L7808CV	1	TO-220 IC. 3-pin. 8V voltage regulator.
NE602A	2	DIP-8 IC. Balanced mixer.
MC1350 replacement module: 1x BF998 dual gate FET in SOT-143 package, 2x 100 Ω chip resistors in 0805 package, 2x 4 pin 0.1 inch pitch headers, 1x adapter PCB	1	DIP-8 adapter module. IF amplifier. PCB marking: MC1350. If you have MC1350 in stock, use MC1350 here.
TDA2822 or D2822	1	DIP-8 IC. Audio amplifier. PCB marking: TDA2822
IC Socket	4	DIP-8.
Inductors		
4.7 μ H Solenoidal	1	YEL-VIO-GLD-SLV
100 μ H Solenoidal	3	BRN-BLK-BRN-SLV
FT37-43 Toroid	4	Black, for RF wide-band transformers. Use 2 stacked for T3 or replace by 1 pcs FT50-43 if you like.
T37-2 Toroid	2	Red, for low-pass filters
Magnet Wire	2m	For toroid winding instruction, see band dependent sections below. AWG 26#. Red 0.7m, Golden 1.3m
Others		
Black chassis screw	8	For front and rear panels.
Chassis Feet	4	14 mm tall.

Part	Qty	Comments
TO-220 thermal insulator	2	For IRF510 and D882, as insulator between chassis and plate
TO-220 washer	1	Small and white, for IRF510, as insulator between plate and nut
Silver M3x10 Screw	7	For chassis feet and semiconductors.
Silver M3 Nut	7	For chassis feet and semiconductors.
Phone Jack	1	3.5mm, for speaker output
DC IN Connector	1	5.5mm x 2.1mm type. Center positive.
Mic Connector	1	8-pin GX16 type socket.
SIP5 Connector	1	One pair with cable, for mic connector to PCB connection.
Black plastic knob	1	Smaller, for IF GAIN control
Silver and black knob	1	Bigger, for TUNE control
9V Relay	4	HK4100F-DC9V-SHG. Yellow body
Antenna Connector	1	BNC type, PCB mount.
Chassis	1	Black, aluminum alloy material
PCB set of 3 pcs	1	Including main board, black front panel and rear panel for CS-Series.
Quick Guide	1	Printed one-page quick guide.
Power switch	1	For modification purpose. Drill a hole in the rear panel near DC IN connector. Connect in line with 1N5820 diode. Optional. At your own risks.
UNBAL switch	Optional	Supply by yourself or order separately. Use to connect to the UNBAL pads to unbalance the modulator/detector to generate stable test carrier for ATU or other test purposes.
Speaker mic	Optional	Order separately
75/80-meter Band Dependent Parts		
Part	Qty	Comments
27 pF NPO	5	27p. Ceramic or monolithic.
47 pF NPO	9	47p. Ceramic or monolithic.
220 pF NPO	1	221. Ceramic or monolithic, add in LPF
820 pF NPO	4	821. Ceramic or monolithic.
22 μ H Solenoidal	1	RED-RED-BLK-SLV. Inductor.

Part	Qty	Comments
18 μH Solenoidal	2	BRN-GRY-BLK-SLV. Inductor.
3.8M IFT/ shielded coil	5	DIY7-3.8, one needs rework to remove built-in tubular capacitor.
IF Crystals	6	8.4672 M
VXO Crystals	1	12.040 MHz, 12.140 MHz, or 12.288 MHz, depending on operating frequency range
Toroids winding: 8 bi-filar turns on 4 pcs FT37-43 black toroids and 22 turns on 2 pcs T37-2 red toroids.		
40-meter Band Dependent Parts		
Part	Qty	Comments
27 pF NPO	5	27p. Ceramic or monolithic.
47 pF NPO	9	47p. Ceramic or monolithic.
100 pF NPO	1	101. Ceramic or monolithic, add in LPF
470 pF NPO	4	471. Ceramic or monolithic.
22 μ H Solenoidal	1	RED-RED-BLK-SLV. Inductor.
18 μH Solenoidal	2	BRN-GRY-BLK-SLV. Inductor.
7M IFT/ shielded coil	5	DIY7-7, one needs rework to remove built-in tubular capacitor.
IF Crystals	6	8.4672 M or 8.192 M, depending on operating frequency range
VXO Crystals	1 or 2	15.360 MHz, 15.418 MHz, 15.500 MHz, 15.540 MHz, 15.570 MHz or 15.600 MHz, depending on operating frequency range
Toroids winding: 8 bi-filar turns on 4 pcs of FT37-43 black toroids, and 15 turns on 2 pcs T37-2 red toroids.		
15-meter Band Dependent Parts		
Part	Qty	Comments
15 pF NPO	4	15p. Ceramic or monolithic.
27 pF NPO	1	27p. Ceramic or monolithic.
47 pF NPO	10	47p. Ceramic or monolithic. 1 pcs add in LPF
150 pF NPO	4	151. Ceramic or monolithic.

Part	Qty	Comments
22 μ H Solenoidal	1	RED-RED-BLK-SLV. Inductor.
18 μH Solenoidal	2	BRN-GRY-BLK-SLV. Inductor.
7M IFT/ shielded coil	1	DIY7-7, needs rework to remove built-in tubular capacitor.
21M IFT/ shielded coil	4	DIY7-21
IF Crystals	6	8.467 MHz
VXO Crystals	2	12.800 MHz
Toroids winding: 8 bi-filar turns on 4 pcs of FT37-43 black toroids, and 8 turns on 2 pcs T37-2 red toroids.		