CS-series SSB Transceiver Kit Part List 20170402

Part	Qty	Comments
Band Independent Common Parts		
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	4	ORG-ORG-BLK-BLK-BRN, 3 for Sandwich
680 Ω	1	BLU-GRY-BLK-BLK-BRN
1 kΩ	5	BRN-BLK-BLK-BRN-BRN, for Sandwich
1.5 kΩ	7	BRN-GRN-BLK-BRN-BRN
3.3 kΩ	3	ORG-ORG-BLK-BRN-BRN
10 kΩ	3	BRN-BLK-BLK-RED-BRN
10 kΩ trimmer	1	103. Blue and White. 3-pin
10 kΩ potentiometer	1	B10K marking for GAIN, A10K is not installed
Capacitors		
2 pF NPO	2	2. Ceramic or monolithic.
27 pF NPO	1	27 or 270. Ceramic or monolithic.
47 pF NPO	7	47 or 470. Ceramic or monolithic.
68 pF NPO	1	68 or 680. Ceramic or monolithic.
0.01 µF	6	103. Ceramic or monolithic.
0.1 µF	42	104. Ceramic or monolithic, 9 for Sandwich
10 µF 16 V or higher	1	Electrolytic capacitor
100 µF 16 V or higher	2	Electrolytic capacitor
1000 µF 25 V or higher	3	Electrolytic capacitor
Diodes, Transistors and IC's		
1N4148	6	Glass body. Band is cathode.
1N5820	1	Black body. Band is cathode.

Part	Qty	Comments
Dual color LED	1	3mm dual color, for Sandwich D1
C8050 or S8050	1	TO-92 transistor. 3-pin. RX muting.
C3357	1	RE or RF marking. SMD 3-pin. First TX amplifier.
D882	1	TO-126 transistor. 3-pin. TX driver amplifier.
IRF510	1	TO-220 MOSFET. 3-pin. Final TX amplifier.
7808	1	TO-220 IC. 3-pin. 8V voltage regulator.
NE602A	2	DIP-8 IC. Balanced mixer.
MC1350	1	DIP-8 IC. IF amplifier.
TDA2822M or D2822A	1	DIP-8 IC. Audio amplifier.
IC Socket	4	DIP-8.
__Inductors and Transformers__		
4.7 µH Solenoidal	1	YEL-VIO-GLD-SLV
100 µH Solenoidal	3	BRN-BLK-BRN-SLV
FT37-43 Toroid	3	Black, for RF wide-band transformers
T37-2 Toroid	2	Red, for low-pass filters
Magnet Wire	2m	For toroid winding instruction, see band dependent sections below
__Others__		
IF Crystals	7	8.4672 MHz, HC-49S
Sandwich Crystal	1	27 MHz, HC-49S, for Sandwich X1
Rotary encoder w/ button	1	20 pulses per rev., for Sandwich SW1
Black chassis screw	8	For front and rear panels.
Chassis Feet	4	14 mm tall.
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	2.1mm type. Center positive.

Part	Qty	Comments
Mic Connector	1	8-pin type socket.
SIP5 Connector	1	One pair with cable, for mic connector to PCB connection.
Black plastic knob	2	For both TUNE and GAIN controls
9V Relay	4	HK4100F-DC9V-SHG. Yellow body
Antenna Connector	1	BNC type, PCB mount.
Chassis	1	Black, aluminum alloy material
PCB/PCBA set of 5 pcs	1	Including main board, black front panel and rear panel, Sandwich control board, Sandwich OSC board with SI5351a pre-mounted
Jumper cables	1	10 wires F/F, for Sandwich programming, power wiring and other potential use like UNBAL jumper wiring to panel mount switch
Jumper cap	1	For UNBAL jumper short
Quick Guide	1	Printed one-page guide.

75/80-meter Band Dependent Parts

Part	Qty	Comments
27 pF NPO	4	27 or 270. Ceramic or monolithic.
820 pF NPO	4	821. Ceramic or monolithic.
3.8M IFT/ shielded coil	4	DIY7-3.8
Arduino Pro Mini 3.3V	1	75/80-meter code pre-programmed, for Sandwich

Toroids winding: 8 bi-filar turns on 3 pcs of 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	4	27 or 270. Ceramic or monolithic.
470 pF NPO	4	471. Ceramic or monolithic.
7M IFT/ shielded coil	4	DIY7-7
Arduino Pro Mini 3.3V	1	40-meter code pre-programmed, for Sandwich

Toroids winding: 5 bi-filar turns on 3 pcs of FT37-43 black toroids, and 15 turns on 2 pcs T37-2 red toroids.

20-meter Band Dependent Parts

Part	Qty	Comments
15 pF NPO	4	15 or 150. Ceramic or monolithic.

Part	Qty	Comments
270 pF NPO	4	271. Ceramic or monolithic.
14M IFT/ shielded coil	4	DIY7-14
Arduino Pro Mini 3.3V	1	20-meter code pre-programmed, for Sandwich
Toroids winding: 5 bi-filar turns on 3 pcs of FT37-43 black toroids, and 11 turns on 2 pcs T37-2 red toroids.		