

* INDICATES A COMPONENT THAT IS NOT PLACED

NUF6497B, NUF6498B, NUF6500B, AND NUF6501B (800MHz) TRANSCEIVER BOARDS' SCHEMATIC DIAGRAM

**Electrical Parts List, Transceiver (800MHz)
NUF6500D**

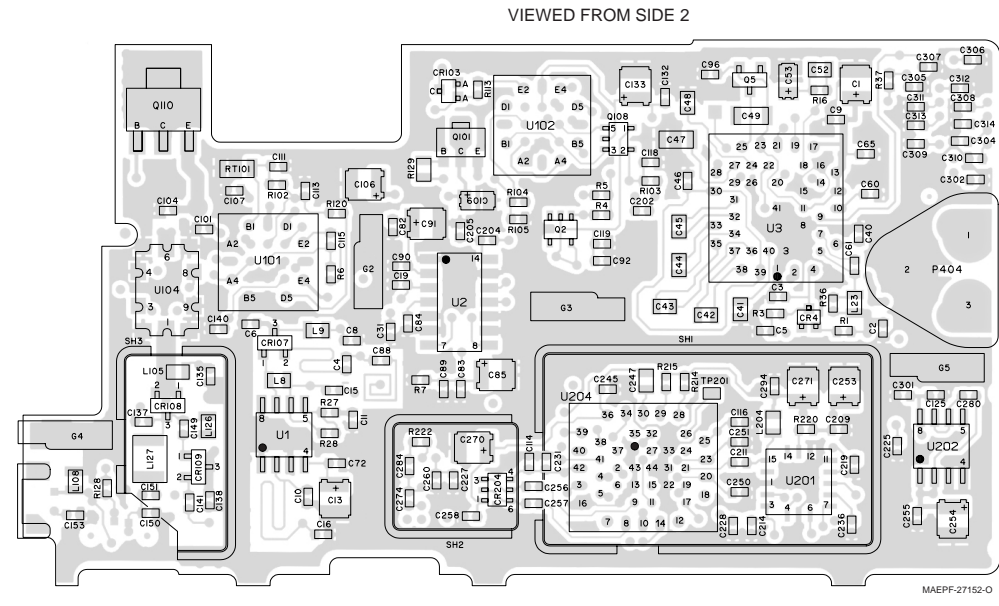
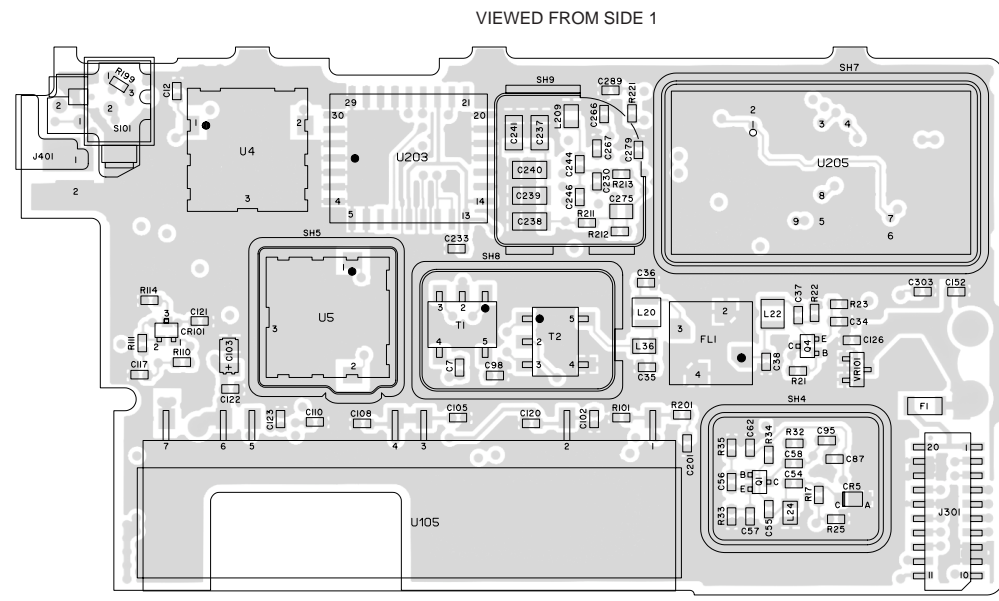
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR, Fixed: pF ±5%; 50V unless stated
C1	2311049J23	10uF
C2	2113732K15	0.1uF
C3	2113741F37	3.3nF
C4	2113740F29	12pF
C5	2113741F37	3.3nF
C6	2113740F43	47pF
C7	2113740F22	6.2pF
C8	2113730F39	33pF
C9	2113732K15	0.1uF
C10	2113740F11	2.2pF
C11	2113730F51	100pF
C12	2113740F15	3.3pF
C13	2311049J23	10uF
C15	2113732E07	.022uF
C16	2113740F24	7.5pF
C19	2113740F41	39pF
C31	2113732E07	.022uF
C34	2113732K15	0.1uF
C35	2113740F43	47pF
C36	2113740F13	2.7pF
C37	2113732E07	.022uF
C38	2113740F17	3.9pF
C40	2113730F51	100pF
C41	2113743A19	0.1uF
C42 thru 45	2113743A23	0.22uF
C46	2113732K15	0.1uF
C47	2109720D14	0.1uF
C48	2113740A70	430pF
C49	2311049A04	0.33uF
C52	2113741A51	.018uF
C53	2311049A02	0.15uF
C54, 55	2113740F41	39pF
C56, 57	2113740F42	43pF
C58	2113740F11	2.2pF
C60	2113732K15	0.1uF
C61	2113730F51	100pF
C62	2113732K15	0.1uF
C65	2113732K15	0.1uF
C72	2113740F41	39pF
C82	2113732E07	.022uF
C83	2113740F41	39pF
C84	2113732E07	.022uF
C85	2311049J23	10uF
C87	2113732K15	0.1uF
C88	2113740F20	5.1pF
C89	2113743E07	.022uF
C90	2113740F41	39pF
C91	2311049J23	10uF
C92	2113732E07	.022uF
C95	2113740F25	8.2pF
C96	2113732K15	0.1uF
C98	2113731F13	330pF
C101, 102	2113730F39	33pF
C103	2311049A07	1uF
C104, 105	2113732E07	.022uF
C106	-----	Not Placed
C107, 108	2113730F39	33pF
C109	-----	Not Placed
C110, 111	2113730F39	33pF
C113	2113730F39	33pF
C114	2113732K15	0.1uF
C115	2113743K16	0.22uF
C116	2113732K15	0.1uF
C117, 118	2113730F39	33pF
C119	2113732E07	.022uF
C120	2113732K15	0.1uF
C121	2113740F34	20pF
C122, 123	2113730F39	33pF
C125	2113732K15	0.1uF
C126	2113732E07	.022uF
C132	2113732E07	.022uF
C133	2311049J23	10uF
C135	2113730F39	33pF
C137	2113730F39	33pF
C138	2113740F34	20pF
C140	2113732E07	.022uF
C141	2113740F27	10pF
C149, 150	2113740F12	2.4pF
C151	2113740F34	20pF
C152	2113730F39	33pF

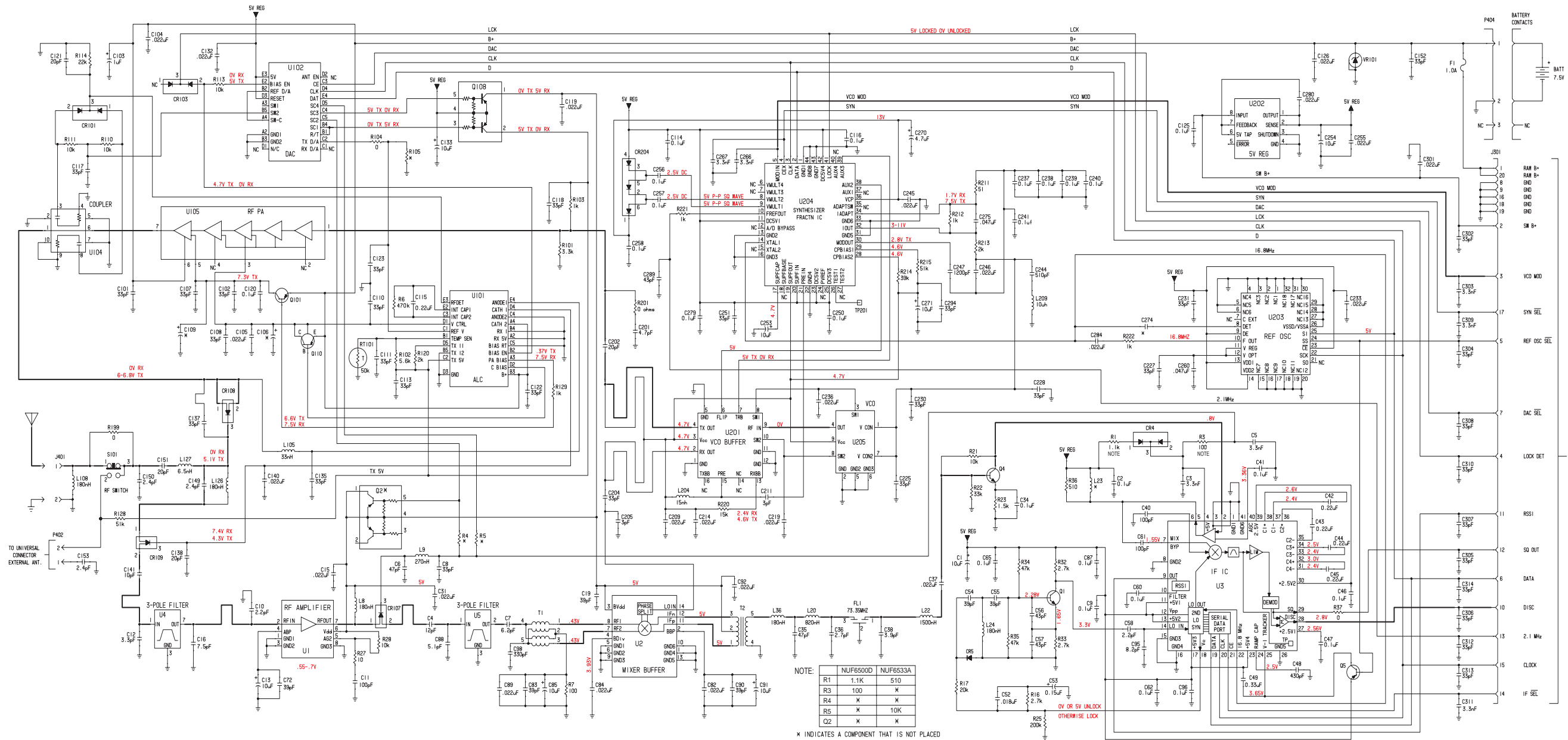
C153	2113740F12	2.4pF
C201	2113740F19	4.7pF
C202	2113740F34	20pF
C204	2113730F39	33pF
C205	2113740F14	3pF
C209	2113732E07	.022uF
C211	2113740F17	3pF
C214	2113732E07	.022uF
C219	2113732E07	.022uF
C225	2113730F39	33pF
C227, 228	2113730F39	33pF
C230, 231	2113730F39	33pF
C233	2113732E07	.022uF
C236	2113732E07	.022uF
C237 thru 241	2109720D14	0.1uF
C244	2113741F18	3.3pF
C245, 246	2113732E07	.022uF
C247	2105248W02	1200pF
C250	2113732K15	0.1uF
C251	2113730F39	33pF
C253, 254	2311049J23	10uF
C255	2113732E07	.022uF
C256 thru 258	2113732K15	0.1uF
C260	2113743R07	.047uF
C266, 267	2113741F37	3.3nF
C270	2311049J12	4.7uF
C271	2311049J23	10uF
C274	-----	Not Placed
C275	2113743A13	.047uF
C279	2113732K15	0.1uF
C280	2113732E07	.022uF
C284	2113732E07	.022uF
C289	2113740A42	43pF
C294	2113730F39	33pF
C301	2113732E07	.022uF
C302	2113730F39	33pF
C303	2113741F37	3.3nF
C304 thru 308	2113730F39	33pF
C309	2113741F37	3.3nF
C310	2113730F39	33pF
C311	2113741F37	3.3nF
C312 thru 314	2113730F39	33pF
CR4	4805218N57	Dual
CR5	4862824C01	Varactor
CR101	4805218N57	Dual
CR103	4805218N57	Dual
CR107 thru 109	4805129M96	PIN
CR204	4802233J09	Triple
F1	6505757V01	FUSE: 1.0A
FL1	4802655J03	FILTER: See Note 2, 73.35MHZ
G2 thru 5	3905643V01	CONNECTOR: Contact, Ground
J301	0905461X03	JACK: Connector, 20 contacts; to P301 Strip Connector
J401	3905264W01	Contact, Antenna
L8	2462587V37	COIL, RF: 180nH
L9	2462987Q40	270nH
L20	2405452C58	820nH
L22	2405452C64	1500nH
L23	-----	Not Placed
L24	2462587V37	180nH
L36	2462587V37	180nH
L105	2462589V28	33nH
L108	2462587V37	180nH
L126	2462587V37	180nH
L127	2405430Y01	6.5nH
L204	2462587V24	15nH
L209	2462587Q59	10uH
P402	-----	PLUG: Contact, External Antenna; part of RF switch S101
P404	3905861X02	Connector, Battery
Q1	4805218N63	TRANSISTOR: NPN
Q2	-----	Not Placed

Q4	4805218N63	NPN
Q5	4880048M04	PNP
Q101	4805128M27	PNP
Q108	4805921T06	Dual PNP
Q110	4805218N45	PNP
		RESISTOR, Fixed: Ω ± 5% .0625W unless stated
R1	0662057A50	1.1k
R3	0662057A25	100
R4, 5	-----	Not Placed
R6	0662057B14	470k
R16	0662057A59	2.7k
R17	0662057A80	20k
R21	0662057A73	10k
R22	0662057A85	33k
R23	0662057A53	1.5k
R25	0662057B05	200k
R27	0662057A01	10
R28	0662057A73	10k
R32, 33	0662057A59	2.7k
R34, 35	0662057A89	47k
R36	0662057A42	510
R37	0662057B47	0
R101	0662057A61	3.3k
R102	0662057A67	5.6k
R103	0662057A49	1k
R104	0662057B47	0
R105	-----	Not Placed
R110, 111	0662057A73	10k
R113	0662057A73	10k
R114	0662057A81	22k
R120	0662057A56	2k
R128	0662057A90	51k
R129	0662057C75	1k
R199	-----	Not Placed
R201	0662057B47	0 ohms
R211	0662057A18	51
R212	0662057A49	1k
R213	0662057A56	2k
R214	0662057A87	39k
R215	0662057A90	51k
R220	0662057A77	15k
R221, 222	0662057A49	1k
RT101	0605621T02	THERMISTOR: 50k
S101	4005831W01	SWITCH: RF , used on NUF6497B, NUF6498B, and NUF6500B Not Used, replaced with R199 on NUF6501B
T1	2505515V04	TRANSFORMER: Balun; 5:1
T2	2505515V07	Balun; 25:1
U1	5105457W51	MODULES: RF Amp
U2	5105457W52	Mixer
U3	5186296A02	IF
U4, 5	5105279V15	3-Pole Filte
U101	5105835U52	TX ALC
U102	5105835U51	DAC
U104	5105279V26	coupler
U105	5105385Y83	RF PA
U201	5105662U76	IC, Bipolar Analog
U202	5105469E58	5V Regulator
U203	5105385Y61	Ref. Osc., 16.8MHz
U204	5105457W81	Synthesizer
U205	5105385Y53	VCO
VR101	4813830A33	DIODE, ZENER: See Note 1 20V
MISCELLANEOUS		
	8405108X41	Board, Circuit (800/900MHz)
MECHANICAL PARTS		
SH1	2605258V02	SHIELD, Synthesizer
SH2	2605259V01	SHIELD, Diode
SH3	2605260V01	SHIELD, RF Switch
SH4	2605261V01	SHIELD, IF
SH5	2605263V02	SHIELD, 3-Pole Filter
SH7	2605890U02	SHIELD, VCO
SH8	2605418V01	SHIELD, Transformer
SH9	2605540W01	SHIELD, Loop Filter

Notes:

- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
- When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
- "Not Placed" means that components are for future use, and are not placed on the circuit board at this time.





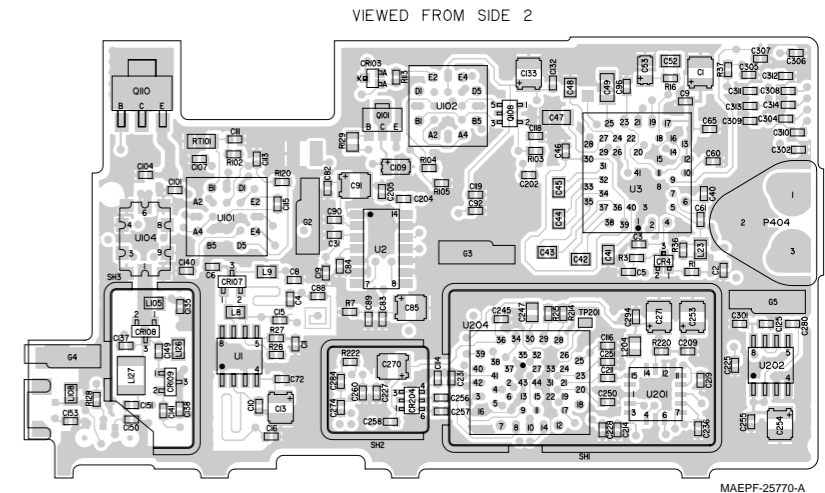
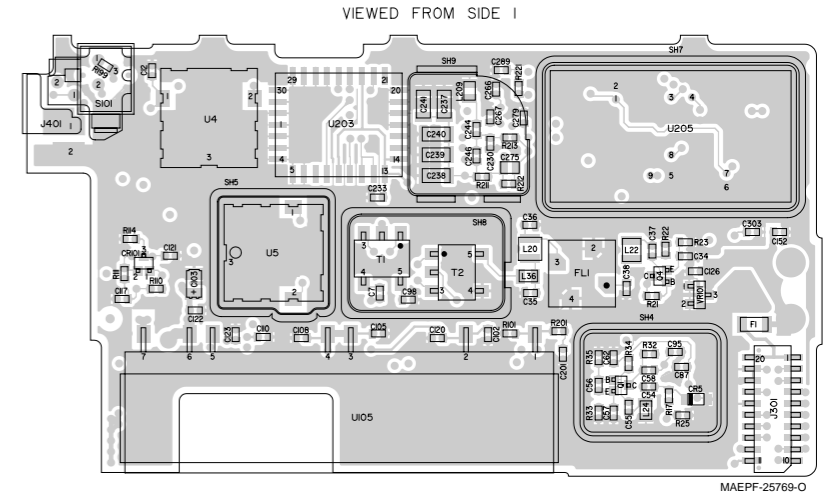
**Electrical Parts List, Transceivers (900MHz)
NUF6395C, NUF6424B, NUF6499A, NUF6502A**

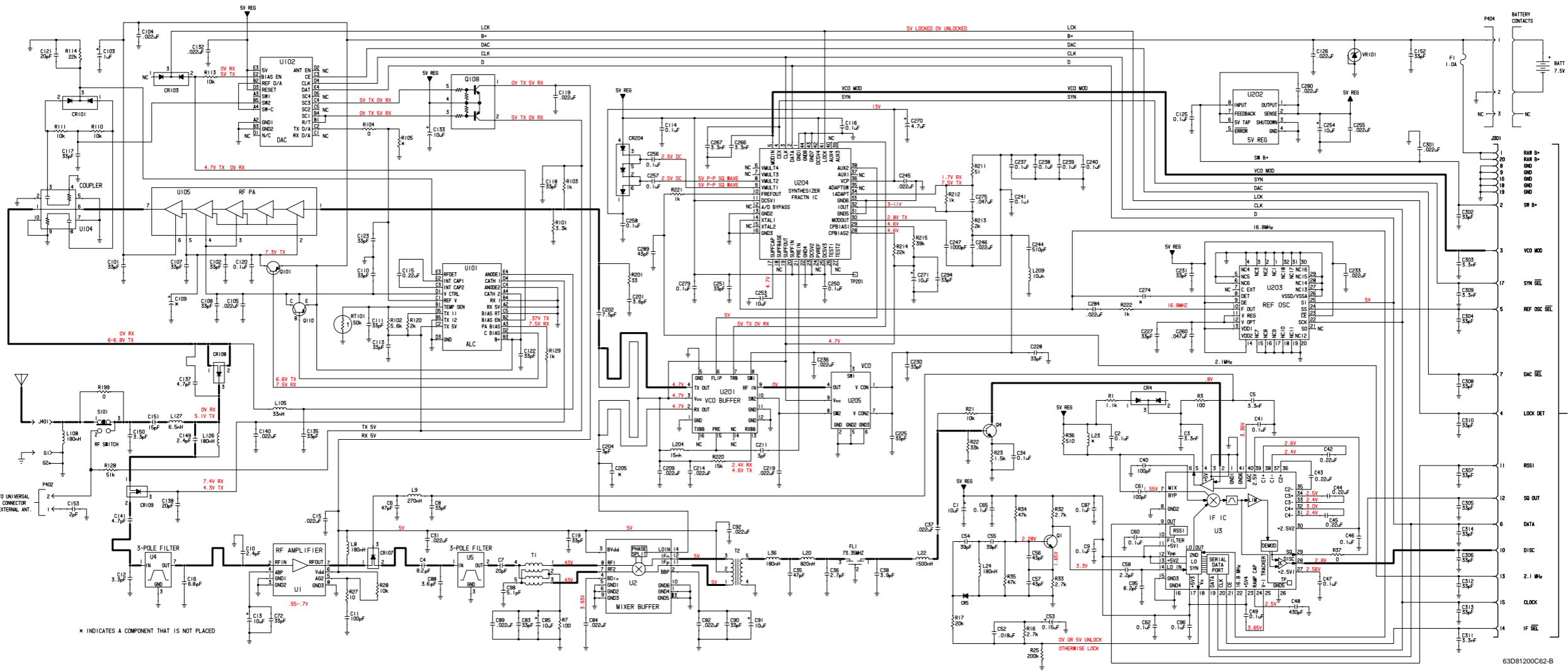
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C1	2311049J23	CAPACITOR, Fixed- pF ±5%; SOV unless stated
C2	2113932K15	
C3	2113741F37	
C4	2113740F25	
C5	2113741F37	
C6	2113740F43	
C7	2113740F34	
C8	2113930F39	
C9	2113932K15	
C10	2113740F12	
C11	2113930F51	
C12	2113740F15	
C13	2311049J23	
C15	2113932E07	
C16	2113740F23	
C19	2113930F39	
C31	2113932E07	
C34	2113932K15	
C35	2113740F43	
C36	2113740F13	
C37	2113932E07	
C38	2113740F17	
C40	2113930F51	
C41	2113743A19	
C42 thru 43	2113743A23	
C46	2113932K15	
C47	2109720D14	
C48	2113740A70	
C49	2110920D14	
C52	2113741A51	
C53	2311049A02	
C54, 55	2113740F41	
C56, 57	2113740F42	
C58	2113740F11	
C60	2113932K15	
C61	2113930F51	
C62, 65	2113932K15	
C72	2113930F39	
C82	2113932E07	
C83	2113930F39	
C84	2113932E07	
C85	2311049J23	
C87	2113932K15	
C88	2113740F16	
C89	2113932E07	
C90	2113930F39	
C91	2311049J23	
C92	2113932E07	
C95	2113740F25	
C96	2113932K15	
C98	2113741F20	
C101, 102	2113930F39	
C103	2311049A07	
C104, 105	2113932E07	
C107, 108	2113930F39	
C109	Not Placed	
C110, 111, 113	2113930F39	
C114	2113932K15	
C115	2113743K16	
C116	2113932K15	
C117, 118	2113930F39	
C119	2113932E07	
C120	2113932K15	
C121	2113740F34	
C122, 123	2113930F39	
C125	2113740F19	
C126	2113932E07	
C132	2113932E07	
C133	2311049J23	
C135	2113930F39	
C137	2113740F19	
C138	2113740F34	
C140	2113932E07	
C141	2113740F19	
C149	2113740F12	
C150	2113740F15	
C151	2113740F31	
C152	2113930F39	
C153	2113740F10	
C201	2113740F16	

C202	2113740F24	7.5
C204	2113740F14	3
C205	-----	Not Placed
C209	2113932E07	.022µF
C211	2113740F14	3
C214	2113932E07	.022µF
C219	2113932E07	.022µF
C225	2113930F39	33
C227, 228	2113930F39	33
C230, 231	2113930F39	33
C233	2113932E07	.022µF
C236	2113932E07	.022µF
C237 thru 241	2109720D14	0.1µF
C244	2113741F18	510
C245, 246	2113932E07	.022µF
C247	2105248W01	1000
C250	2113932K15	0.1µF
C251	2113930F39	33
C253, 254	2311049J23	10µF
C255	2113932E07	.022µF
C256, 257, 258	2113932K15	0.1µF
C260	2113743K07	.047µF
C266, 267	2113741F37	3.3nF
C270	2311049J12	4.7µF
C271	2311049J23	10µF
C274	-----	Not Placed
C275	2113743K13	.047µF
C279	2113932K15	0.1µF
C280	2113932E07	.022µF
C284	2113932E07	.022µF
C289	2113740F42	43
C294	2113930F39	33
C301	2113932E07	.022µF
C302	2113930F39	33
C303	2113741F37	3.3nF
C304 thru 308	2113930F39	33
C309	2113741F37	3.3nF
C310	2113930F39	33
C311	2113741F37	3.3nF
C312, 313, 314	2113930F39	33
CR4	4805218N57	DIODE: Dual Varactor
CR5	4862824C01	Dual
CR101, 103	4805218N57	Dual
CR107, 108, 109	4805129M96	PIN
CR204	4802233J09	Triple
F1	6505757V01	FUSE: 1.0A
FL1	5102463J03	FILTER: 73.35MHz
G2 thru 5	3905643V01	CONNECTOR: Contact, Ground
J301	0905461X02	JACK: Connector, 20 contacts; to P401 Strip Connector
J401	3905264W01	Contact, Antenna
L8	2462587V37	COIL, RF: 180nH
L9	2462587Q40	270nH
L20	2405452C58	820nH
L22	2405452C64	150nH
L23	-----	Not Placed
L24	2462587V37	180nH
L36	2462587V37	180nH
L105	2462587V28	33nH
L108	2462587V37	180nH
L126	2462587V37	180nH
L127	2405430Y01	6.5nH
L204	2462587V24	15nH
L209	2462587Q59	10µH
P402	-----	PLUG: Contact, External Antenna; part of RF switch S101
P404	3905861X02	Connector, Battery, 2-pin
Q1	4805218N63	TRANSISTOR: NPN
Q4	4805218N63	NPN
Q101	4805128M27	PNP
Q108	4805921T06	Dual PNP
Q110	4805218N45	PNP

R1	0662057A50	RESISTOR, Fixed: ± 5% .0625W unless stated
R3	0662057A25	100
R7	0662057A25	100
R16	0662057A59	2.7k
R17	0662057A80	20k
R21	0662057A73	10k
R22	0662057A85	33k
R23	0662057A53	1.5k
R25	0662057B05	200k
R27	0662057A01	10
R28	0662057A73	10k
R32, 33	0662057A59	2.7k
R34, 35	0662057A89	47k
R36	0662057A42	510
R37	0.1µF	0
R101	0662057A61	3.3k
R102	0662057A67	5.6k
R103	0662057A49	1k
R104	0662057B47	0
R105	-----	Not Placed
R110, 111, 113	0662057A73	10k
R114	0662057A81	22k
R120	0662057A56	2k
R128	0662057A90	51k
R129	0662057C75	1k
R199	0662057B47	0
R201	0662057A13	0 used in place of S101 on NUF6424B and NUF6502A
R211	0662057A18	Not Used, replaced with S101 on NUF6395C and NUF6499A
R212	0662057A49	33
R213	0662057A56	51
R214	0662057A81	1k
R215	0662057A87	2k
R220	0662057A77	15k
R221, 222	0662057A49	1k
RT101	0605621T02	THERMISTOR: 50k
S101	4005831W01	SWITCH: RF, used on NUF6395C and NUF6499A Not Used, replaced with R199 on NUF6424B and NUF6502A
T1	2505515V03	TRANSFORMER: Balun, 4:1
T2	2505515V07	Balun, 2:1
U1	5105457W51	MODULES: RF Amp
U2	5105457W52	Mixer
U3	5109951X01	IF
U4, 5	5105279V06	3-Pole Filter
U101	5105835U52	TX ALC
U102	5105835U51	D/A
U104	5105279V26	Coupler
U105	5105385Y13	RF PA
U201	5102227J37	VCO
U202	5105469E65	SV Regulator
U203	5105385Y43	Ref. Oscillator
U204	5105457W81	Synthesizer
U205	5105279V01	VCO
VR101	4813830A33	DIODE, Zener: 20V
MECHANICAL PARTS		
SH1	2605258V02	SHIELD, Synthesizer
SH2	2605259V01	SHIELD, Diode
SH3	2605260V01	SHIELD, RF Switch
SH4	2605261V01	SHIELD, IF
SH5	2605263V02	SHIELD, 3-Pole Filter
SH7	2605890J02	SHIELD, VCO
SH8	2605418V01	SHIELD, Transformer
SH9	2605540W01	SHIELD, Loop Filter

- Notes:**
- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
 - When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
 - "Not Placed" means that components are for future use, and are not placed on the circuit board at this time.





63D81200C2-B

NUF6395C, NUF6424B, NUF6499A, AND NUF6502A (900MHz) TRANSCEIVER BOARDS' SCHEMATIC DIAGRAM

**Electrical Parts List, Transceivers (900MHz)
NUF6499B AND NUF6502B**

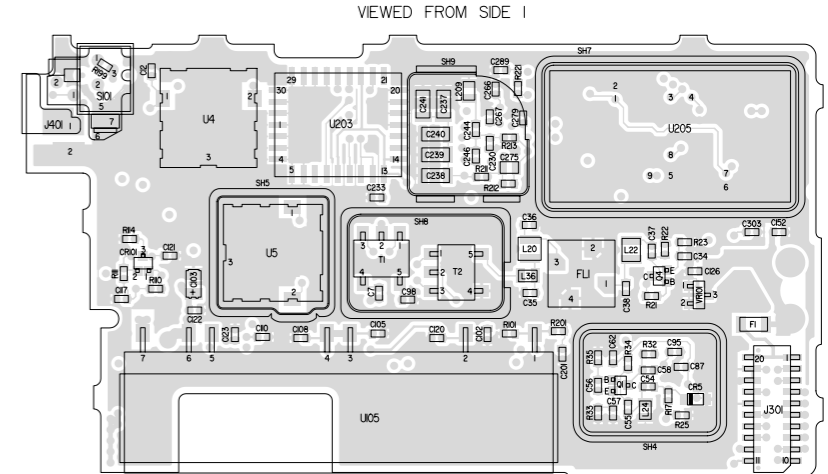
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR, Fixed: $\pm 5\%$; 50V unless stated
C1	2311049J23	10 μ F
C2	2113932K15	0.1 μ F
C3	2113741F37	3.3nF
C4	2113740F25	8.2
C5	2113741F37	3.3nF
C6	2113740F43	47
C7	2113740F34	20
C8	2113930F39	33
C9	2113932K15	0.1 μ F
C10	2113740F12	2.4
C11	2113930F51	100
C12	2113740F15	3.3
C13	2311049J23	10 μ F
C15	2113932E07	.022 μ F
C16	2113740F23	6.8
C19	2113930F39	33 μ F
C31	2113932E07	.022 μ F
C34	2113932K15	0.1 μ F
C35	2113740F43	47
C36	2113740F13	2.7
C37	2113932E07	.022
C38	2113740F17	3.9
C40	2113930F51	100
C41	2113743A19	0.1 μ F
C42 thru 45	2113743A23	0.22 μ F
C46	2113932K15	0.1 μ F
C47	2109720D14	0.1 μ F
C48	2113740A70	430
C49	2311049A04	0.33 μ F
C52	2113741A51	0.01 μ F
C53	2311049A02	0.15 μ F
C54, 55	2113740F41	39
C56, 57	2113740F42	43
C58	2113740F11	2.2
C60	2113932K15	0.1 μ F
C61	2113930F51	100
C62, 65	2113932K15	0.1 μ F
C72	2113930F39	33
C82	2113932E07	.022 μ F
C83	2113930F39	33
C84	2113932E07	.022 μ F
C85	2311049J23	10 μ F
C87	2113932K15	0.1 μ F
C88	2113740F16	3.6
C89	2113932E07	.022 μ F
C90	2113930F39	33
C91	2311049J23	10 μ F
C92	2113932E07	.022 μ F
C95	2113740F25	8.2
C96	2113932K15	0.1 μ F
C98	2113741F20	5.1
C101, 102	2113930F39	33
C103	2311049A07	1 μ F
C104, 105	2113932E07	.022 μ F
C106	-----	Not Placed
C107, 108	-----	Not Placed
C110, 111, 113	2113930F39	33
C114	2113932K15	0.1 μ F
C115	2113743K16	0.22 μ F
C116	2113932K15	0.1 μ F
C117, 118	2113930F39	33
C119	2113932E07	.022 μ F
C120	2113932K15	0.1 μ F
C121	2113740F34	20
C122, 123	2113740F12	2.4
C125	2113932K15	0.1 μ F
C126	2113932E07	.022 μ F
C132	2113932E07	.022 μ F
C133	2311049J23	10 μ F
C135	2113930F39	33
C137	2113740F19	4.7
C138	2113740F34	20
C140	2113932E07	.022 μ F
C141	2113740F19	4.7
C149	2113740F12	2.4
C150	2113740F15	3.3
C151	2113740F31	15
C152	2113930F39	33
C153	2113740F10	2

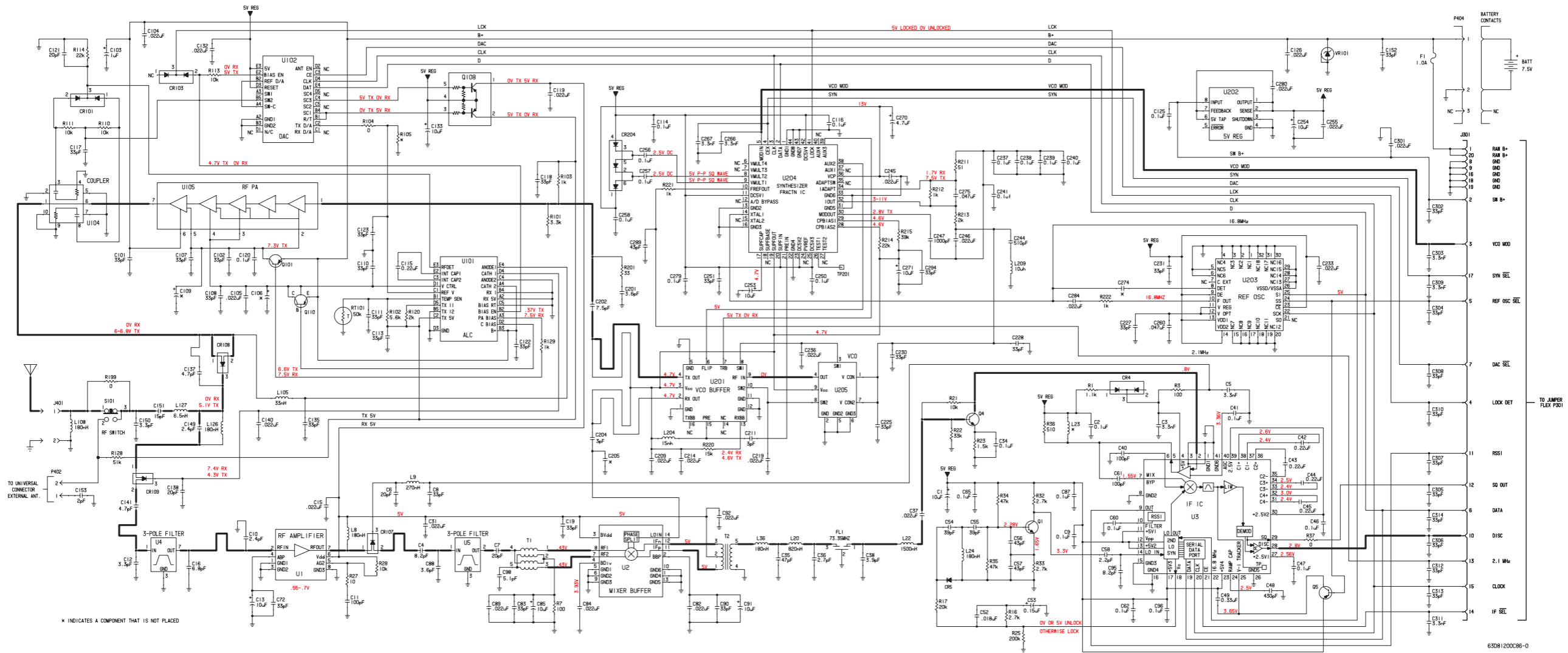
C201	2113740F16	3.6
C202	2113740F24	7.5
C204	2113740F14	3
C205	-----	Not Placed
C209	2113932E07	.022 μ F
C211	2113740F14	3
C214	2113932E07	.022 μ F
C219	2113932E07	.022 μ F
C225	2113930F39	33
C227, 228	2113930F39	33
C230, 231	2113930F39	33
C233	2113932E07	.022 μ F
C236	2113932E07	.022 μ F
C237 thru 241	2109720D14	0.1 μ F
C244	2113741F18	510
C245, 246	2113932E07	.022 μ F
C247	2105248W01	1000
C250	2113932K15	0.1 μ F
C251	2113930F39	33
C253, 254	2311049J23	10 μ F
C255	2113932E07	.022 μ F
C256, 257, 258	2113932K15	0.1 μ F
C260	2113743K07	0.47 μ F
C266, 267	2113741E37	3.3nF
C270	2311049J12	4.7 μ F
C271	2311049J23	10 μ F
C274	-----	Not Placed
C275	2113743A13	0.47 μ F
C279	2113932K15	0.1 μ F
C280	2113932E07	.022 μ F
C284	2113932E07	.022 μ F
C289	2113740F42	43
C294	2113930F39	33
C301	2113932E07	.022 μ F
C302	2113930F39	33
C303	2113741E37	3.3nF
C304 thru 308	2113930F39	33
C309	2113741E37	3.3nF
C310	2113930F39	33
C311	2113741F37	3.3nF
C312, 313, 314	2113930F39	33
CR4	4805218N57	Dual Diode
CR5	4862824C01	Varactor
CR101, 103	4805218N57	Dual Diode
CR107, 108, 109	4805129A96	PNP
CR204	4802233J09	Triple Diode
F1	6505757V01	FUSE: 1.0A
FL1	5102463J03	FILTER: 73.35MHz
G2 thru 5	3905643V01	CONNECTOR: Contact, Ground
J301	0905461X02	JACK: Connector; 20 contacts; to P301 Strip Connector
J401	3905264W01	CONTACT, Antenna
L8	2462587V37	COIL, RF: 180nH
L9	2462587Q40	270nH
L20	2405452C58	820nH
L22	2405452C64	1500nH
L23	-----	Not Placed
L24	2462587V37	180nH
L36	2462587V37	180nH
L105	2462587V28	33nH
L108	2462587V37	180nH
L126	2462587V37	180nH
L127	2405430Y01	6.5nH
L204	2462587V24	15nH
L209	2462587Q59	10 μ H
P402	-----	CONTACT, External Antenna; part of RF switch S101
P404	3905861X02	CONNECTOR, Battery; 2-pin
Q1	4805218N63	NPN Transistor
Q4	4805218N63	NPN
Q5	480048M04	PNP
Q101	4805128M27	Dual PNP
Q108	4805921T06	Dual PNP

Q110	4805218N45	PNP RESISTOR, Fixed: $\Omega \pm 5\%$.0625W unless stated
R1	0662057A50	1.1k
R3	0662057A25	100
R7	0662057A25	100
R16	0662057A59	2.7k
R17	0662057A80	20k
R21	0662057A73	10k
R22	0662057A85	33k
R23	0662057A53	1.5k
R25	0662057B05	200k
R27	0662057A01	10
R28	0662057A73	10k
R32, 33	0662057A59	2.7k
R34, 35	0662057A89	47k
R36	0662057A42	510
R37	0662057B47	0
R101	0662057A61	3.3k
R102	0662057A67	5.6k
R103	0662057A49	1k
R104	0662057B47	0
R105	-----	Not Placed
R110, 111, 113	0662057A73	10k
R114	0662057A81	22k
R120	0662057A56	2k
R128	0662057A90	51k
R129	0662057C75	1k
R199	0662057B47	0 used in place of S101 on NUF6502B
R201	0662057A13	33
R211	0662057A18	51
R212	0662057A49	1k
R213	0662057A56	2k
R214	0662057A81	22k
R215	0662057A87	39k
R220	0662057A77	15k
R221, 222	0662057A49	1k
RT101	0605621T02	THERMISTOR: 50k
S101	4005831W01	SWITCH: RF used on NUF6499B Not Used, replaced with R199 on NUF6502B
T1	2505515V03	TRANSFORMER: Balun; 4:1
T2	2505515V07	Balun; 2:1
U1	5105457W51	RF Amp
U2	5105457W52	Mixer
U3	5186296A02	IF
U4, 5	5105279V06	3-Pole Filter
U101	5105833U52	TX ALC
U102	5105833U51	D/A
U104	5105279V26	Coupler
U105	5105385Y13	RF PA
U201	5102227J37	VCO
U202	5105469E65	SV Regulator
U203	5105385Y43	Ref. Oscillator
U204	5105457W81	Ref. Synthesizer
U205	5105385Y54	VCO
VR101	4813830A33	DIODE, Zener; 20V
SH1	2605258V02	SHIELD, Synthesizer
SH2	2605259V01	SHIELD, Diode
SH3	2605260V01	SHIELD, RF Switch
SH4	2605261V01	SHIELD, IF
SH5	2605263V02	SHIELD, 3-Pole Filter
SH7	2605890L02	SHIELD, VCO
SH8	2605418V01	SHIELD, Transformer
SH9	2605540W01	SHIELD, Loop Filter

Notes:

- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
- When ordering crystals, specify carrier frequency, crystal frequency, crystal type number, and Motorola part number.
- "Not Placed" means that components are for future use, and are not placed on the circuit board at this time.





NUF6499B AND NUF6502B (900MHz)
TRANSCIVER BOARDS' SCHEMATIC DIAGRAM

**Electrical Parts List, Transceiver (900MHz)
NUF6499D**

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR, Fixed: pF ±5%; 50V unless stated
C1	2311049J23	10µF
C2	2113732K15	0.1µF
C3	2113741F37	3.3nF
C4	2113740E25	8.2
C5	2113741F37	3.3nF
C6	2113740F43	4.7
C7	2113740F34	20
C8	2113730F39	33
C9	2113732K15	0.1µF
C10	2113740F12	2.4
C11	2113730F51	100
C12	2113740F15	3.3
C13	2311049J23	10µF
C15	2113732E07	.022µF
C16	2113740F23	6.8
C19	2113730F39	33pF
C31	2113732E07	.022µF
C34	2113732K15	0.1µF
C35	2113740F43	47
C36	2113740F13	2.7
C37	2113732E07	.022
C38	2113740F17	3.9
C40	2113730F51	100
C41	2113743A19	0.1µF
C42 thru 45	2113743A23	0.22µF
C46	2113732K15	0.1µF
C47	2109720D14	0.1µF
C48	2113740A70	430
C49	2311049A04	0.33µF
C52	2113741A51	.018µF
C53	2311049A02	0.15µF
C54, 55	2113740F41	39
C56, 57	2113740F42	43
C58	2113740F11	2.2
C60	2113732K15	0.1µF
C61	2113730F51	100
C62	2113732K15	0.1µF
C65	2113732K15	0.1µF
C72	2113730F39	33
C82	2113732E07	.022µF
C83	2113730F39	33
C84	2113732E07	.022µF
C85	2311049J23	10µF
C87	2113732K15	0.1µF
C88	2113740F16	3.6
C89	2113732E07	.022µF
C90	2113730F39	33
C91	2311049J23	10µF
C92	2113732E07	.022µF
C95	2113740E25	8.2
C96	2113732K15	0.1µF
C98	2113741F20	5.1
C101, 102	2113730F39	33
C103	2311049A07	1µF
C104, 105	2113732E07	.022µF
C106	-----	Not Placed
C107, 108	2113730F39	33
C109	-----	Not Placed
C110,111	2113730F39	33
C113	2113730F39	33
C114	2113732K15	0.1µF
C115	2113743K16	0.22µF
C116	2113732K15	0.1µF
C117, 118	2113730F39	33
C119	2113732E07	.022µF
C120	2113732K15	0.1µF
C121	2113740F34	20
C122, 123	2113730F39	33
C125	2113732K15	0.1µF
C126	2113732E07	.022µF
C132	2113732E07	.022µF
C133	2311049J23	10µF
C135	2113730F39	33
C137	2113740F19	4.7
C138	2113740E34	20
C140	2113732E07	.022µF
C141	2113740F19	4.7
C149	2113740F12	2.4
C150	2113740F15	3.3

C151	2113740F31	15
C152	2113730F39	33
C153	2113740F10	2
C201	2113740F16	3.6
C202	2113740F24	7.5
C204	2113740F14	3
C205	-----	Not Placed
C209	2113732E07	.022µF
C211	2113740F14	3
C214	2113732E07	.022µF
C219	2113732E07	.022µF
C225	2113730F39	33
C227, 228	2113730F39	33
C230, 231	2113730F39	33
C233	2113732E07	.022µF
C236	2113732E07	.022µF
C237 thru 241	2109720D14	0.1µF
C244	2113741F18	5.10
C245, 246	2113732E07	.022µF
C247	2105248W01	1000
C250	2113732K15	0.1µF
C251	2113730F39	33
C253, 254	2311049J23	10µF
C255	2113732E07	.022µF
C256 thru 258	2113732K15	0.1µF
C260	2113743K07	0.47µF
C266, 267	2113741F37	3.3nF
C270	2311049J12	4.7µF
C271	2311049J23	10µF
C274	-----	Not Placed
C275	2113743A13	0.47µF
C279	2113732K15	0.1µF
C280	2113732E07	.022µF
C284	2113732E07	.022µF
C289	2113740F42	43
C294	2113730F39	33
C301	2113732E07	.022µF
C302	2113730F39	33
C303	2113741F37	3.3nF
C304 thru 308	2113730F39	33
C309	2113741F37	3.3nF
C310	2113730F39	33
C311	2113741F37	3.3nF
C312 thru 314	2113730F39	33
CR4	4805218N57	Dual
CR5	4862824C01	Varactor
CR101	4805218N57	Dual
CR103	4805218N57	Dual
CR107 thru 109	4805129M96	PIN
CR204	4802233J09	Triple
F1	6505757V01	FUSE: 1.0A
FL1	4802655J03	FILTER: 73.35MHz
G2 thru 5	3905643V01	CONNECTOR: Contact, Ground
J301	0905461X03	JACK: Connector, 20 contacts; to P301 Strip Connector
J401	3905264W01	Contact, Antenna
L8	2462587V37	COIL, RF: 180nH
L9	2462587Q40	270nH
L20	2405452C58	820nH
L22	2405452C64	1500nH
L23	-----	Not Placed
L24	2462587V37	180nH
L36	2462587V37	180nH
L105	2462587V28	33nH
L108	2462587V37	180nH
L126	2462587V37	180nH
L127	2405430V01	6.5nH
L204	2462587V24	15nH
L209	2462587Q59	10µH
P402	-----	PLUG: Contact, External Antenna; part of RF switch S101
P404	3905861X02	Connector, Battery; 2-pin
Q1	4805218N63	TRANSISTOR: NPN

Q2	-----	Not Placed
Q4	4805218N63	NPN
Q5	4880048M04	PNP
Q101	4805128M27	PNP
Q108	4805921T06	Dual PNP
Q110	4805218N45	PNP
		RESISTOR, Fixed: Ω ± 5% .0625W unless stated
R1	0662057A50	1.1k
R3	0662057A25	100
R4, 5	-----	Not Placed
R6	0662057B14	470k
R7	0662057A25	100
R16	0662057A59	2.7k
R17	0662057A80	20k
R21	0662057A73	10k
R22	0662057A85	33k
R25	0662057A53	1.5k
R25	0662057B05	200k
R27	0662057A01	10
R28	0662057A73	10k
R32, 33	0662057A59	2.7k
R34, 35	0662057A89	47k
R36	0662057A42	510
R37	0662057B47	0
R101	0662057A61	3.3k
R102	0662057A67	5.6k
R103	0662057A49	1k
R104	0662057B47	0
R105	-----	Not Placed
R110, 111	0662057A73	10k
R113	0662057A73	10k
R114	0662057A81	22k
R120	0662057A56	2k
R128	0662057A90	51k
R129	0662057C75	1k
R199	-----	Not Placed
R201	0662057A13	33
R211	0662057A18	51
R212	0662057A49	1k
R213	0662057A56	2k
R214	0662057A81	22k
R215	0662057A87	39k
R220	0662057A77	15k
R221, 222	0662057A49	1k
RT101	0605621T02	THERMISTOR: 50k
		SWITCH: RE, used on NUF6499B
		TRANSFORMER: Balun; 4:1 Balun; 2:1
		MODULES: RF Amp Mixer IF 3-Pole Filter TX ALC D/A Coupler RF PA IC, Bipolar, Analog SV Regulator Ref. Oscillator, 16.8MHz Synthesizer VCO
S101	4005831W01	DIODE, Zener; 20V
T1	2505515V03	
T2	2505515V07	
U1	5105457W51	
U2	5105457W52	
U3	5186296A02	
U4, 5	5105279V06	
U101	5105835U52	
U102	5105835U51	
U104	5105279V26	
U105	5105385Y84	
U201	5105662U76	
U202	5105469E65	
U203	5105385Y51	
U204	5105457W81	
U205	5105385Y54	
VR101	4813830A33	
MISCELLANEOUS		
8405108X41 BOARD, PC		
MECHANICAL PARTS		
SH1	2605258V02	SHIELD, Synthesizer
SH2	2605259V01	SHIELD, Diode
SH3	2605260V01	SHIELD, RF Switch
SH4	2605261V01	SHIELD, IF
SH5	2605263V02	SHIELD, 3-Pole Filter
SH7	2605890U02	SHIELD, VCO
SH8	2605418V01	SHIELD, Transformer
SH9	2605450W01	SHIELD, Loop Filter

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