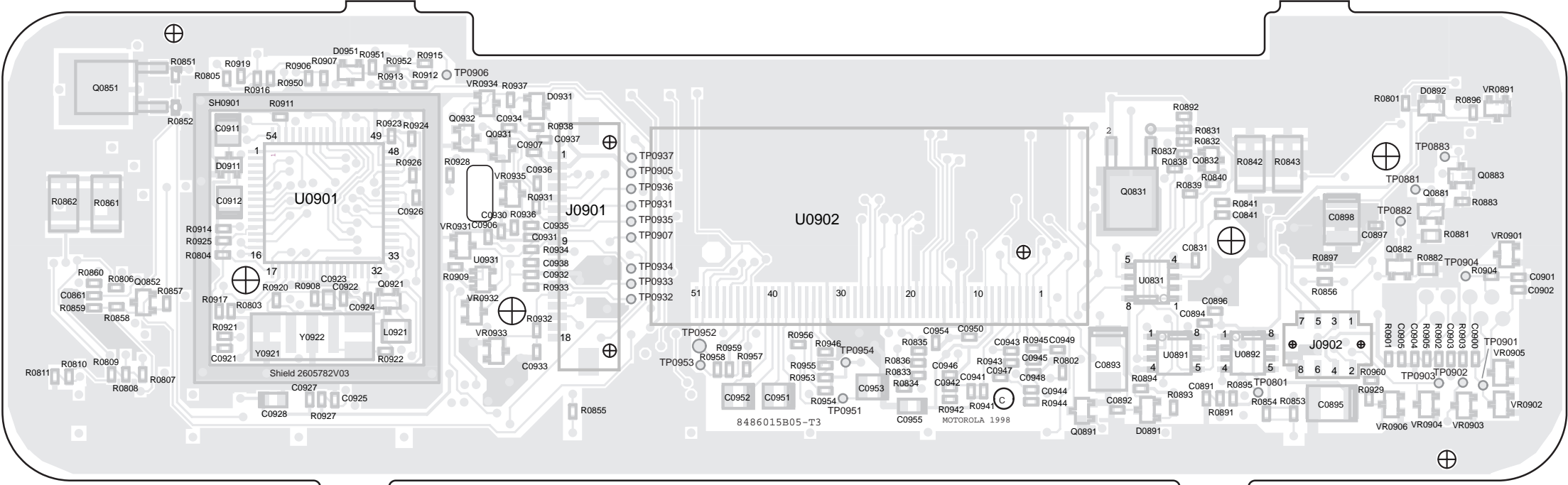
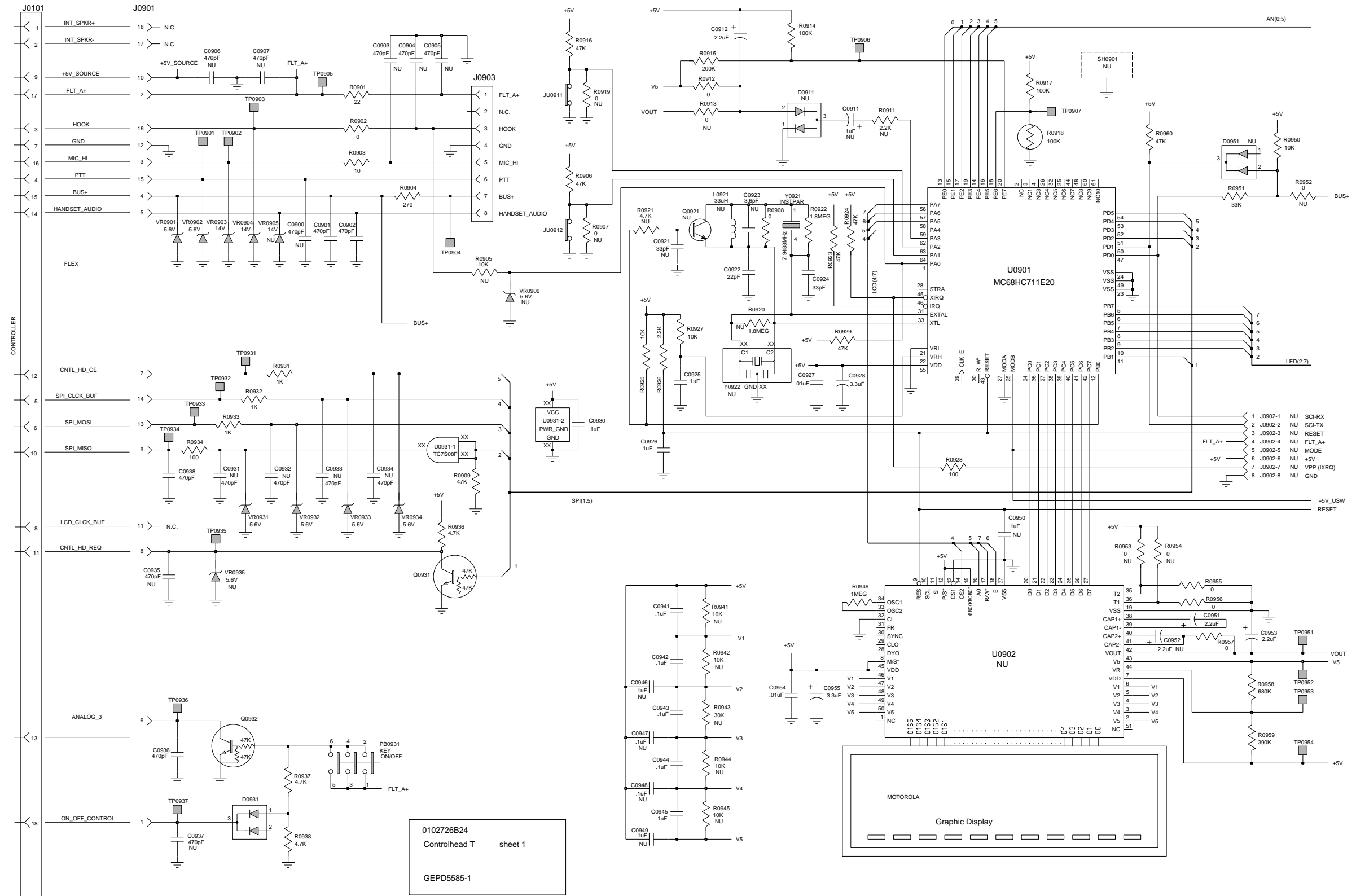


Top Side



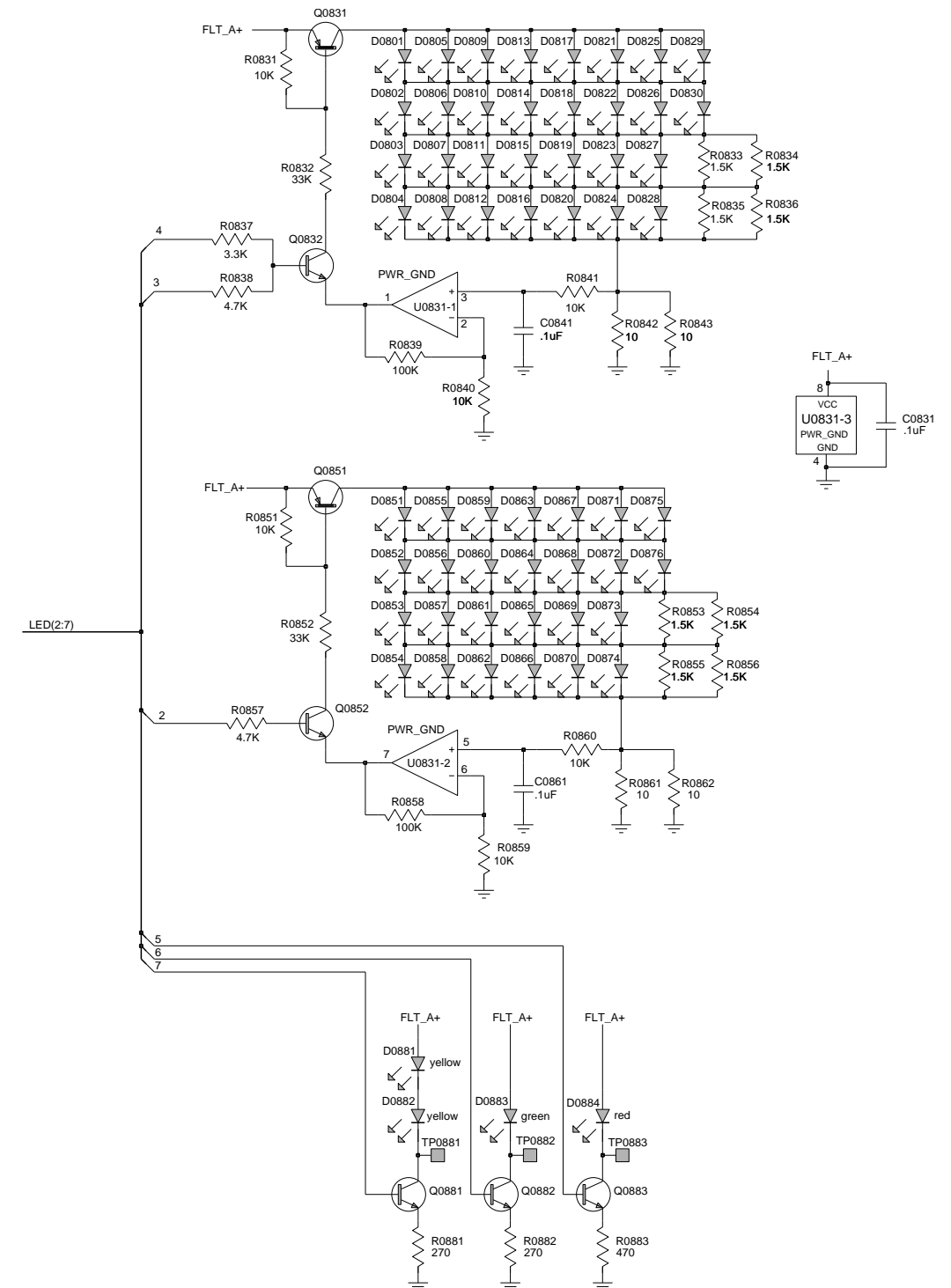
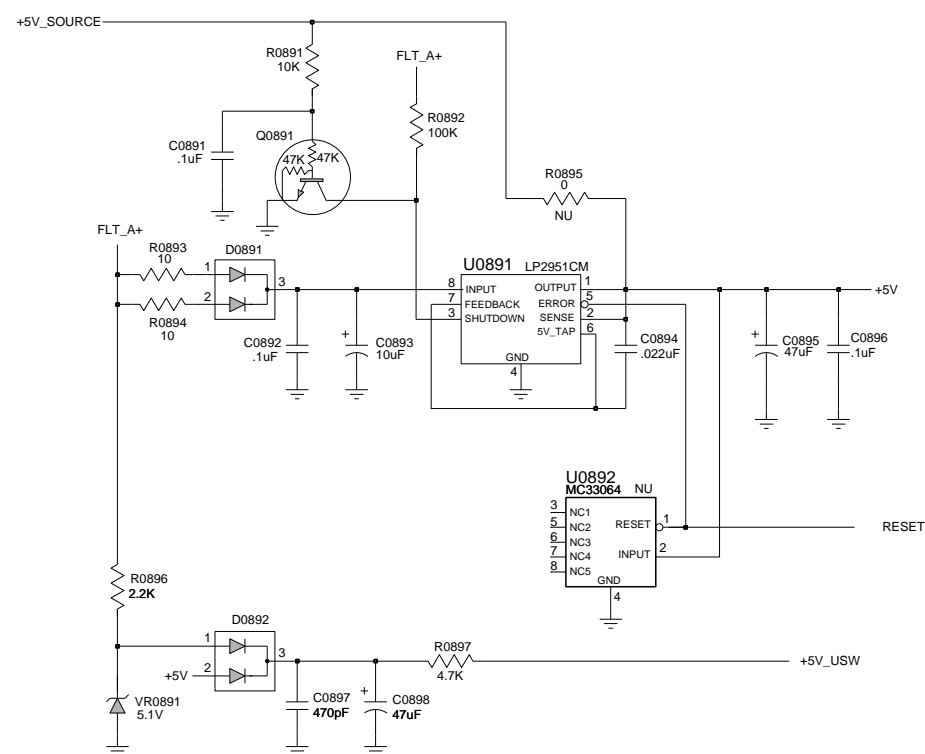
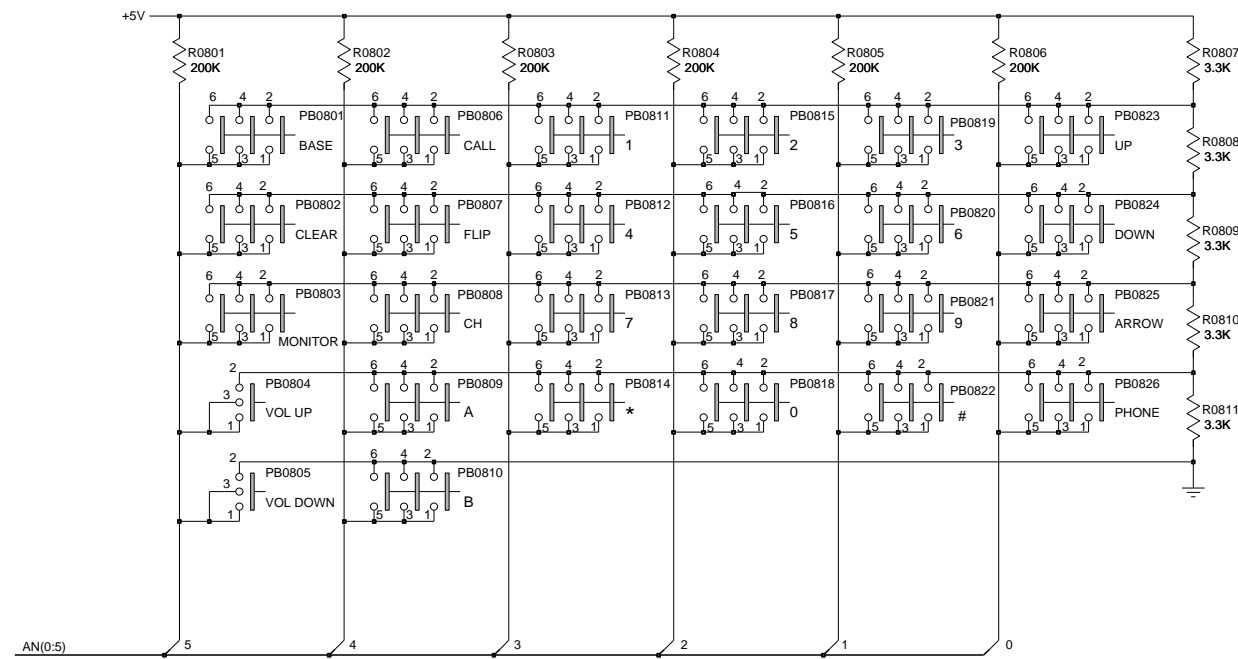
Bottom Side

Display/Keypad Radio Control Head Schematic Diagram



0102726B24
Controlhead T sheet 1
GEPD5585-1

Display/Keypad Radio Control Head Schematic Diagram
1 of 2



0102726B24
Controlhead T sheet 2
GEPD5586

Display/Keypad Radio Control Head Parts List

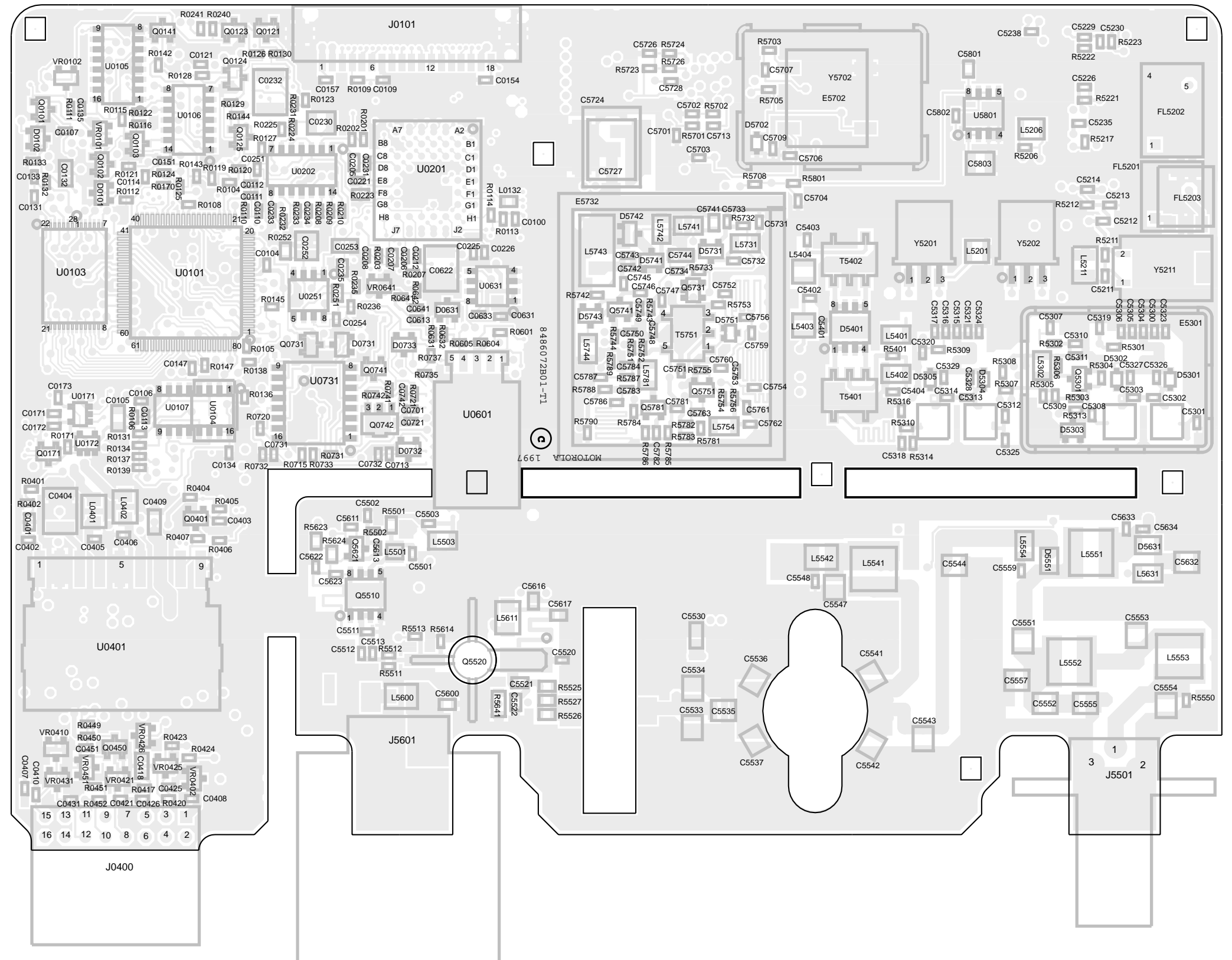
Circuit Ref	Motorola Part No.	Description
C0831	2113743E20	100nF 16V
C0841	2113743E20	100nF 16V
C0861	2113743E20	100nF 16V
C0891	2113743E20	100nF 16V
C0892	2113743E20	100nF 16V
C0893	2311049A45	TANT 10uF 10% 35V
C0894	2113743E07	22nF 16V
C0895	2311049A99	TANT 47uF 20% 10V
C0896	2113743E20	100nF 16V
C0897	2113741F17	470pF 50V
C0898	2311049A99	TANT 47uF 20% 10V
C0901	2113741F17	470pF 50V
C0902	2113741F17	470pF 50V
C0912	2311049A09	TANT 2.2uF 10% 20V
C0922	2113740F35	22pF 5% 50V NPO
C0924	2113740F39	33pF 5% 50V NPO
C0925	2113743E20	100nF 16V
C0926	2113743E20	100nF 16V
C0927	2113741F49	10nF 50V
C0928	2311049A42	TANT 3.3uF 10% 6V
C0930	2113743E20	100nF 16V
C0936	2113741F17	470pF 50V
C0938	2113741F17	470pF 50V
C0941-C0945	2113743E20	100nF 16V
C0951	2311049A09	TANT 2.2uF 10% 20V
C0953	2311049A09	TANT 2.2uF 10% 20V
C0954	2113741F49	10nF 50V
C0955	2311049A42	TANT 3.3uF 10% 6V
D0801-D0830	4805729G75	LED GREEN HP

Circuit Ref	Motorola Part No.	Description
D0851-D0876	4805729G75	LED GREEN HP
D0881-D0882	4805729G73	LED YEL HP
D0883	4805729G75	LED GREEN HP
D0884	4805729G74	LED RED HP
D0891	4813833C02	DUAL SOT MMBD6100
D0892	4813833C02	DUAL SOT MMBD6100
D0931	4813833C02	DUAL SOT MMBD6100
J0901	0902636Y01	CONNECTOR FLEX SIDE ENTRY
J0903	2805924V01	CONNECTOR MIC
Q0831	4813822A08	-
Q0832	4813824A10	NPN 40V .2A B=50-150
Q0851	4813822A08	-
Q0852	4813824A10	NPN 40V .2A B=50-150
Q0881-Q0883	4813824A10	NPN 40V .2A B=50-150
Q0891	4880048M01	NPN DIG 47k/47k
Q0931	4880048M01	NPN DIG 47k/47k
Q0932	4880048M01	NPN DIG 47k/47k
R0801-R0806	0662057B05	200k 1/16W
R0807-R0811	0662057A61	3k3 1/16W 5%
R0831	0662057A73	10k 1/16W 5%
R0832	0662057A85	33k 1/16W 5%
R0833-R0836	0662057A53	1k5 1/16W 5%
R0837	0662057A61	3k3 1/16W 5%
R0838	0662057A65	4k7 1/16W 5%
R0839	0662057A97	100k 1/16W
R0840	0662057A73	10k 1/16W 5%
R0841	0662057A73	10k 1/16W 5%
R0842	0680194M01	10 1W 5%
R0843	0680194M01	10 1W 5%

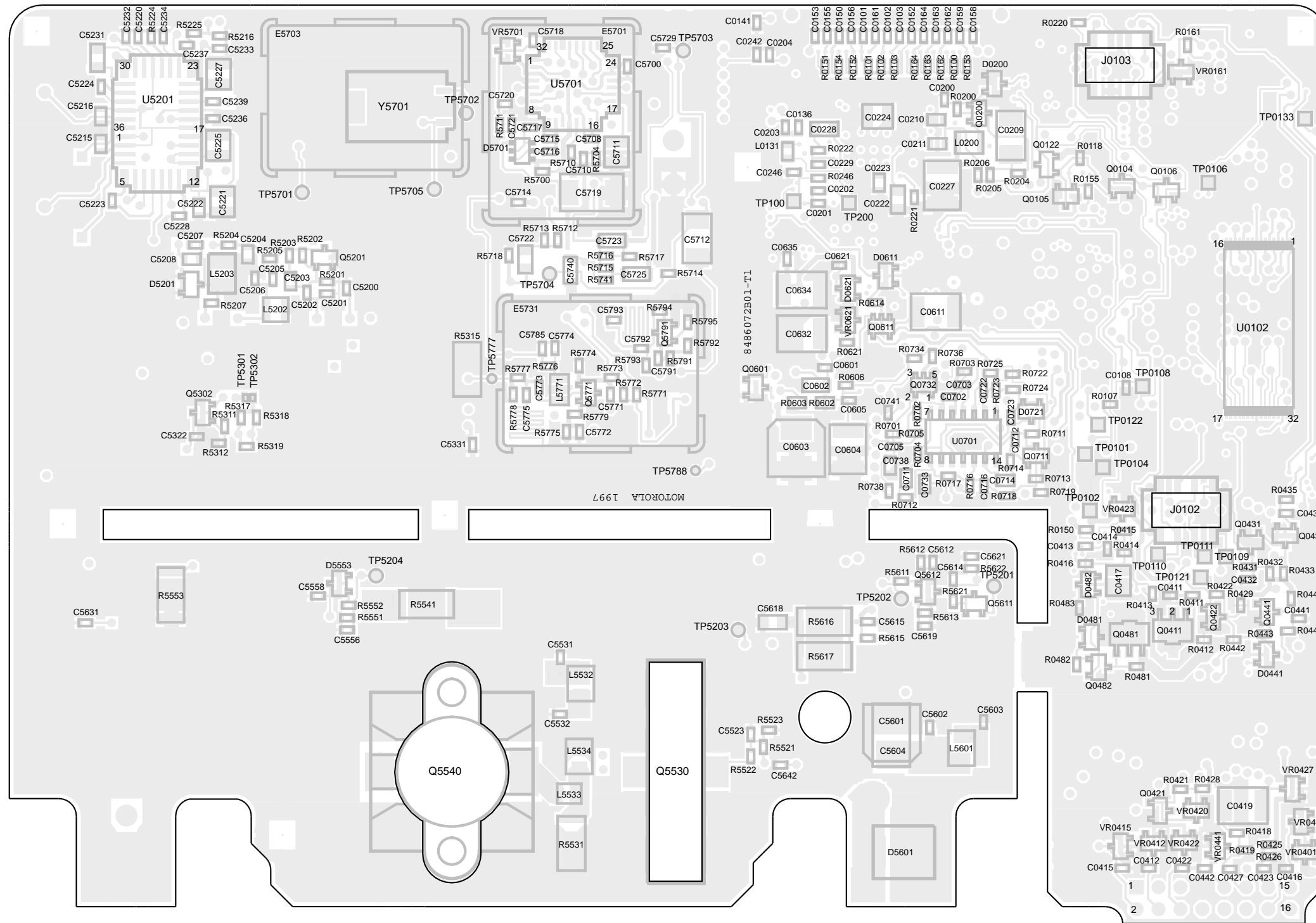
Circuit Ref	Motorola Part No.	Description
R0851	0662057A73	10k 1/16W 5%
R0852	0662057A85	33k 1/16W 5%
R0853-R0856	0662057A53	1k5 1/16W 5%
R0857	0662057A65	4k7 1/16W 5%
R0858	0662057A97	100k 1/16W
R0859	0662057A73	10k 1/16W 5%
R0860	0662057A73	10k 1/16W 5%
R0861	0680194M01	10 1W 5%
R0862	0680194M01	10 1W 5%
R0881	0660076A35	270 5 1/8
R0882	0660076A35	270 5 1/8
R0883	0662057A41	470 1/16W 5%
R0891	0662057A73	10k 1/16W 5%
R0892	0662057A97	100k 1/16W
R0893	0662057A01	10 1/16W 5%
R0894	0662057A01	10 1/16W 5%
R0896	0662057A57	2k2 1/16W 5%
R0897	0662057A65	4k7 1/16W 5%
R0901	0662057A09	22 1/16W 5%
R0902	0662057B47	0 1/16W
R0903	0662057A01	10 1/16W 5%
R0904	0662057A35	270 1/16W 5%
R0906	0662057A89	47k 1/16W 5%
R0908	0662057B47	0 1/16W
R0909	0662057A89	47k 1/16W 5%
R0912	0662057B47	0 1/16W
R0914	0662057A97	100k 1/16W
R0915	0662057B05	200k 1/16W
R0916	0662057A89	47k 1/16W 5%
R0917	0662057A97	100k 1/16W 5%
R0918	0680149M02	THERMISTOR 100K @25C
R0922	0662057B28	1.8M 1/16W 5%
R0923	0662057A89	47k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0924	0662057A89	47k 1/16W 5%
R0925	0662057A73	10k 1/16W 5%
R0926	0662057A57	2k2 1/16W 5%
R0927	0662057A73	10k 1/16W 5%
R0928	0662057A25	100 1/16W 5%
R0929	0662057A89	47k 1/16W 5%
R0931-R0933	0662057A49	1k 1/16W 5%
R0934	0662057A25	100 1/16W 5%
R0936-R0938	0662057A65	4k7 1/16W 5%
R0946	0662057B22	1M 1/16W 5%
R0950	0662057A73	10k 1/16W 5%
R0951	0662057A85	33k 1/16W 5%
R0955	0662057B47	0 1/16W
R0956	0662057B47	0 1/16W
R0957	0662057B47	0 1/16W
R0958	0662057B18	680K 1/16W 5%
R0959	0662057B12	390k 1/16W 5%
R0960	0662057A89	47k 1/16W 5%
U0831	5113818A03	IC HIGH PERFORMANCE
U0891	5105469E65	IC VLTG REGLTR LP2951C
U0901	5102226J16	68HC711E20 64PQFP OTP
U0931	5105279V65	TC7S08F
VR0891	4813830A14	5.1V 5% 225mW
VR0901	4813830A15	5.6V 5% 225mW
VR0902	4813830A15	5.6V 5% 225mW
VR0903	4813830A27	14V 5% 225mW
VR0904	4813830A27	14V 5% 225mW
VR0931 - VR0934	4813830A15	5.6V 5% 225mW
Y0921	4880113R01	CRYSTAL 7.9488

Associated Schematics	
UHF PCB : 8486072B01_T1	Page
Controller	3.2-5
Controller_Audio	3.2-7
Controller_IO	3.2-9
Supply Voltage	3.2-11
Power Control	3.2-13
Power Amplifier	3.2-15
Synthesizer	3.2-17
Voltage Controlled Oscillator	3.2-19
RX-FE	3.2-21
RX-IF	3.2-23

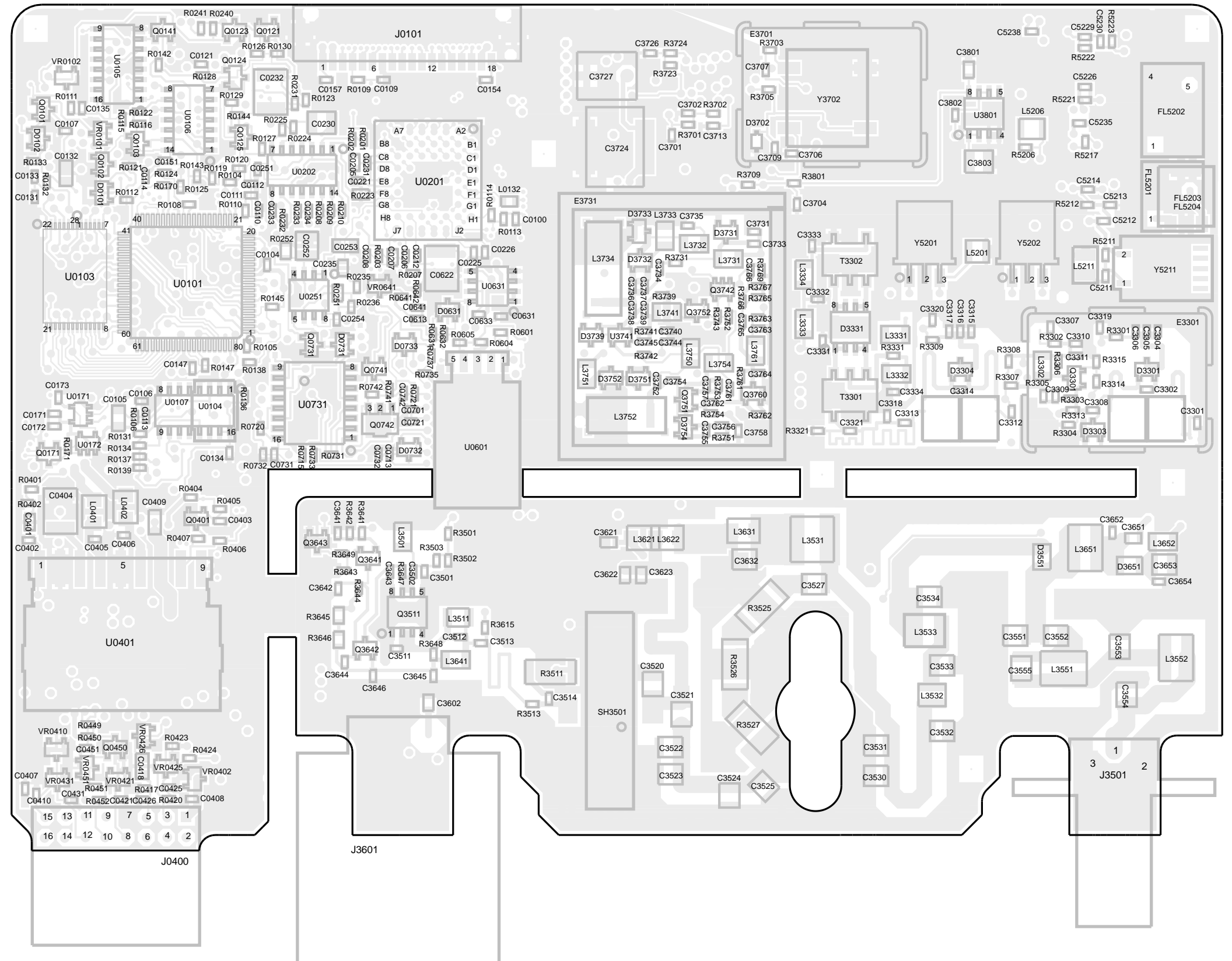


UHF (403-470MHz) Main Board Top Side
PCB No. 8486072B01_T1



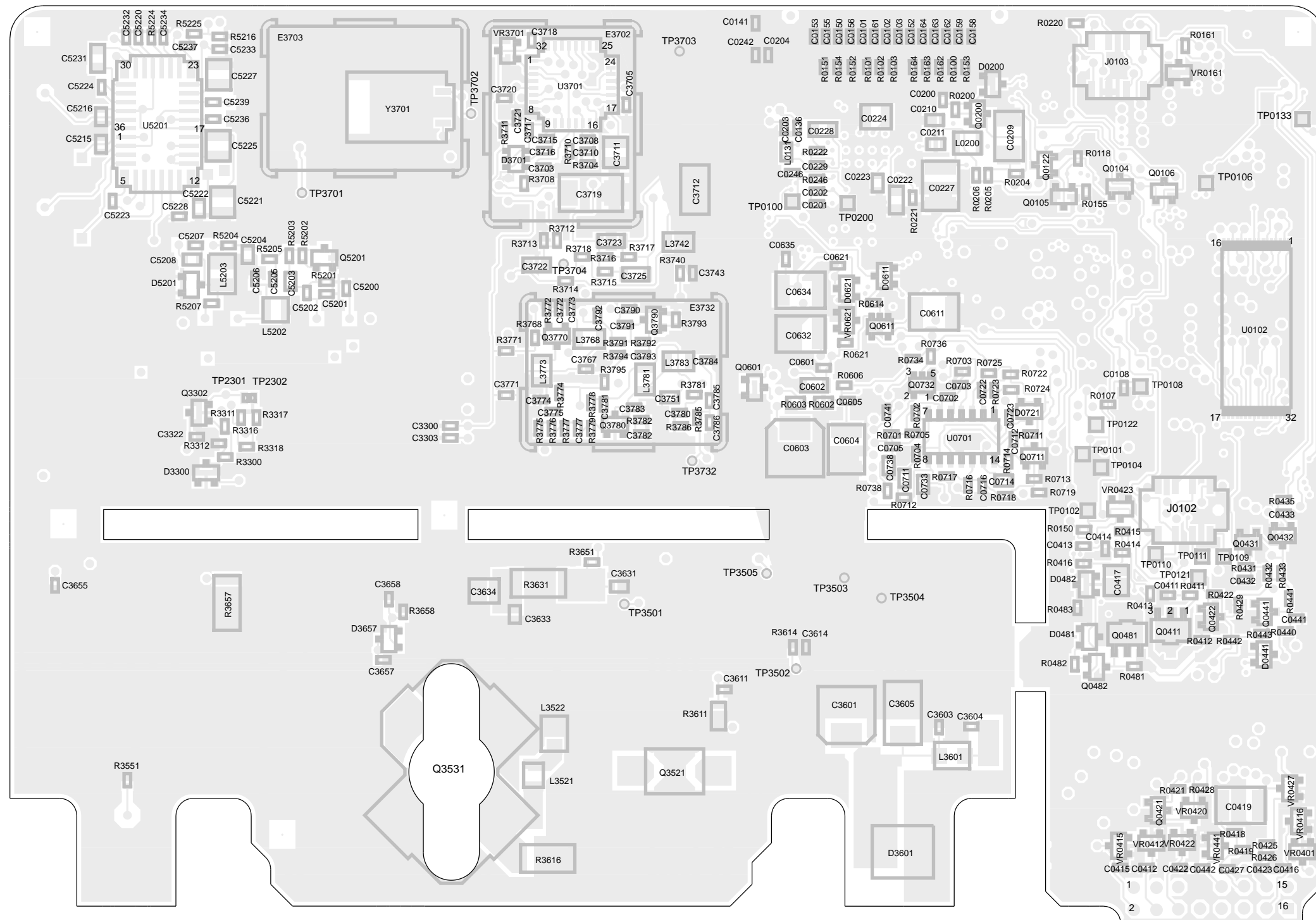
UHF (403-470MHz) Main Board Bottom Side
PCB No. 8486072B01_T1

Associated Schematics	
VHF PCB : 8486069B01_T1	Page
Controller	3.2-5
Controller_Audio	3.2-7
Controller_IO	3.2-9
Supply Voltage	3.2-11
Power Control	3.2-25
Power Amplifier	3.2-27
Synthesizer	3.2-29
Voltage Controlled Oscillator	3.2-31
RX-FE	3.2-33
RX-IF	3.2-35

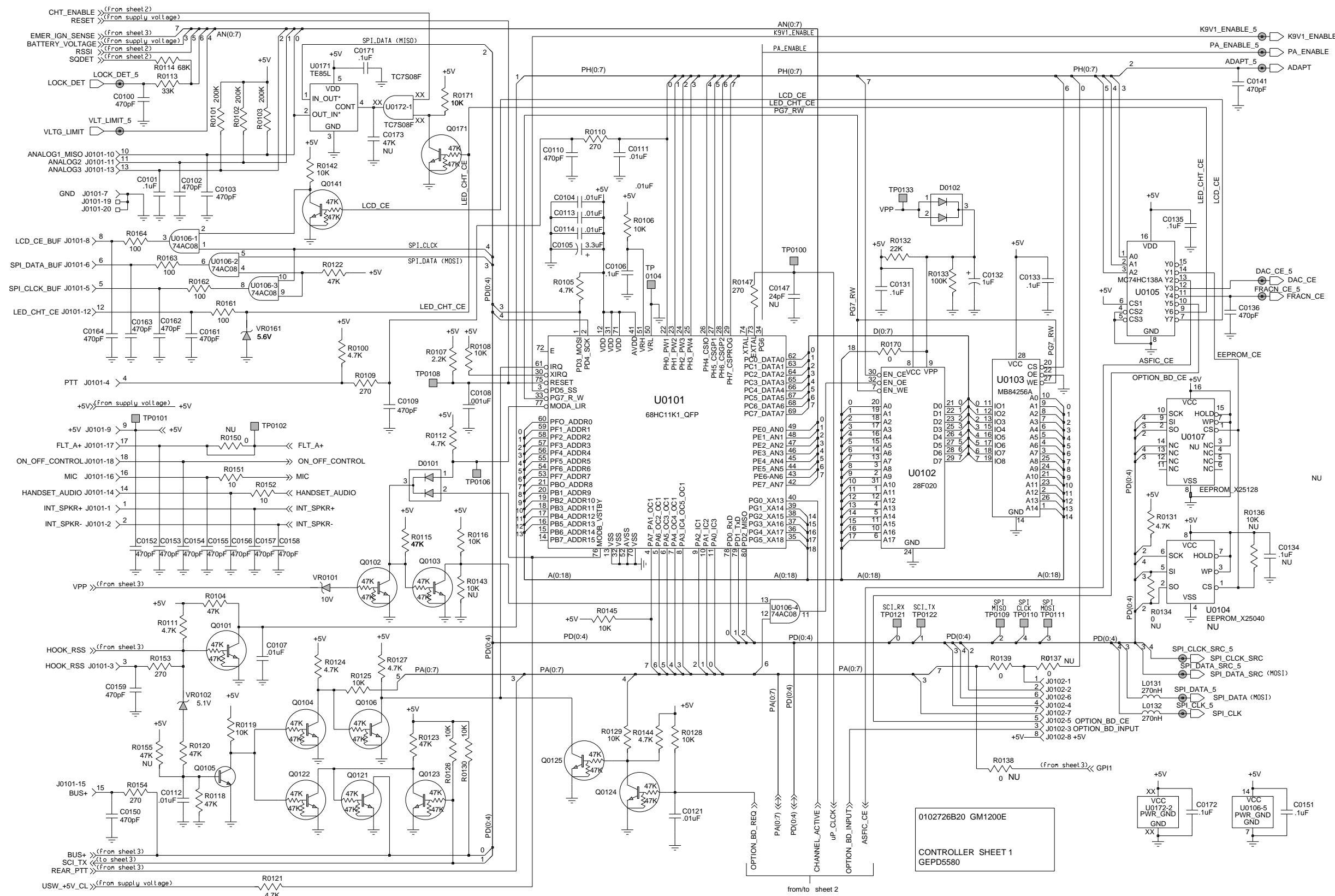


VHF (136-174MHz) Main Board Top Side
PCB No. 8486069B01_T1

UHF (403-470MHz) Main Board Bottom Side PCB No. 8486072B01_T1



VHF (136-174MHz) Main Board Bottom Side
PCB No. 8486069B01_T1



Controller Schematic Diagram
1 of 3

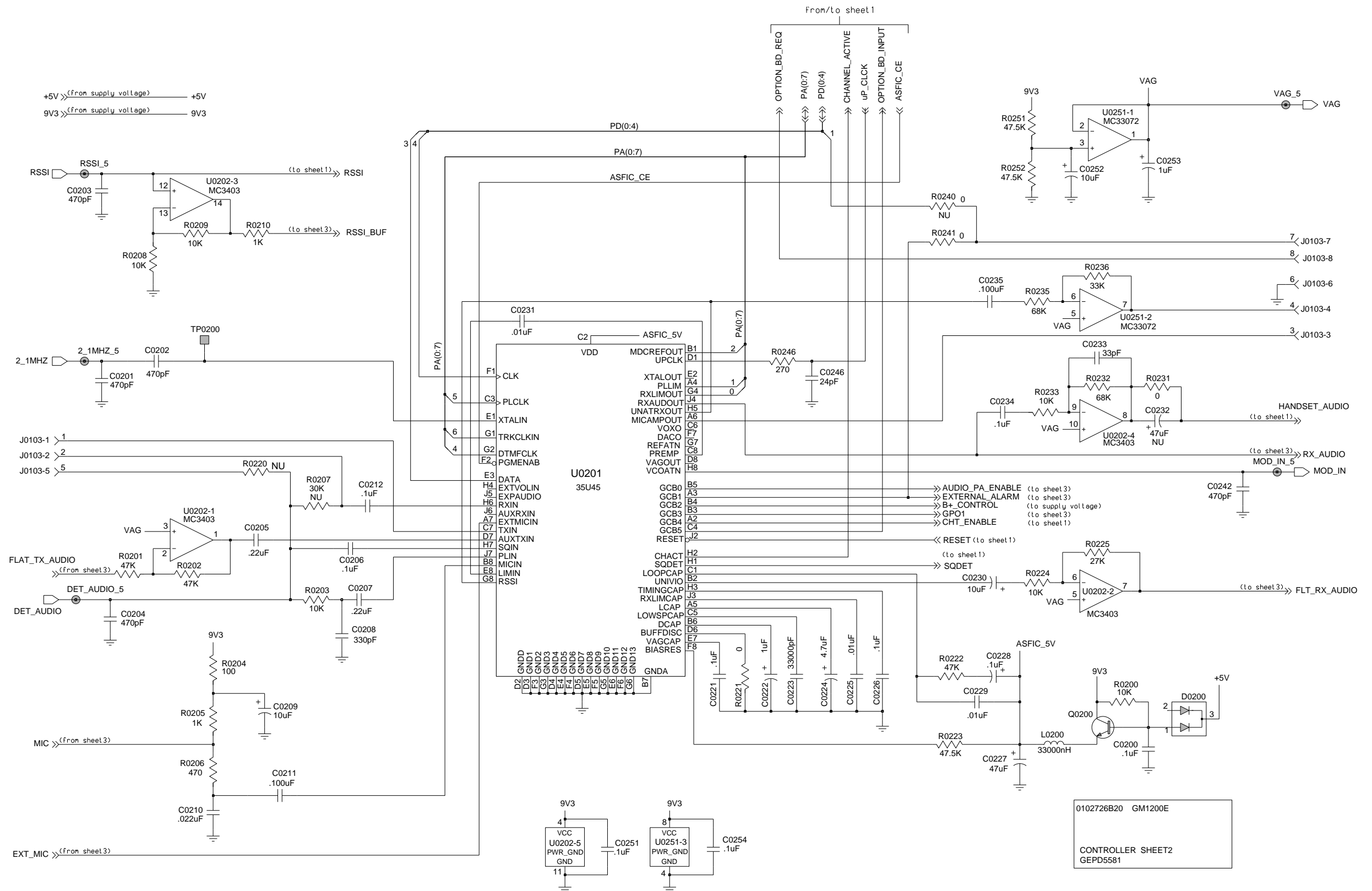
Controller Parts List

Circuit Ref	Motorola Part No.	Description
C0100	2113741F17	CAP CHIP 470pF 50V
C0101	2113743E20	CAP CHIP 100nF 16V
C0102	2113741F17	CAP CHIP 470pF 50V
C0103	2113741F17	CAP CHIP 470pF 50V
C0104	2113741F49	CAP CHIP 10nF 50V
C0105	2311049A42	TANT CP 3.3uF 10% 6V
C0106	2113743E20	CAP CHIP 100nF 16V
C0107	2113741F49	CAP CHIP 10nF 50V
C0108	2113741F25	CAP CHIP 1nF 50V
C0109	2113741F17	CAP CHIP 470pF 50V
C0110	2113741F17	CAP CHIP 470pF 50V
C0111	2113741F49	CAP CHIP 10nF 50V
C0112	2113741F49	CAP CHIP 10nF 50V
C0113	2113741F49	CAP CHIP 10nF 50V
C0114	2113741F49	CAP CHIP 10nF 50V
C0121	2113741F49	CAP CHIP 10nF 50V
C0131	2113743E20	CAP CHIP 100nF 16V
C0133	2113743E20	CAP CHIP 100nF 16V
C0134	2113743E20	CAP CHIP 100nF 16V
C0135	2113743E20	CAP CHIP 100nF 16V
C0136	2113741F17	CAP CHIP 470pF 50V
C0141	2113741F17	CAP CHIP 470pF 50V
C0147	2113740F36	CAP CHIP 24pF 50V
C0150	2113741F17	CAP CHIP 470pF 50V
C0151	2113743E20	CAP CHIP 100nF 16V
C0152	2113741F17	CAP CHIP 470pF 50V
C0153	2113741F17	CAP CHIP 470pF 50V
C0154	2113741F17	CAP CHIP 470pF 50V
C0155	2113741F17	CAP CHIP 470pF 50V
C0156	2113741F17	CAP CHIP 470pF 50V
C0157	2113741F17	CAP CHIP 470pF 50V

Circuit Ref	Motorola Part No.	Description
C0158	2113741F17	CAP CHIP 470pF 50V
C0159	2113741F17	CAP CHIP 470pF 50V
C0161	2113741F17	CAP CHIP 470pF 50V
C0162	2113741F17	CAP CHIP 470pF 50V
C0163	2113741F17	CAP CHIP 470pF 50V
C0164	2113741F17	CAP CHIP 470pF 50V
C0171	2113743E20	CAP CHIP 100nF 16V
C0172	2113743E20	CAP CHIP 100nF 16V
C0200	2113743E20	CAP CHIP 100nF 16V
C0201	2113741F17	CAP CHIP 470pF 50V
C0202	2113741F17	CAP CHIP 470pF 50V
C0203	2113741F17	CAP CHIP 470pF 50V
C0204	2113741F17	CAP CHIP 470pF 50V
C0205	2113743F08	CAP CHIP 220nF 5% 50V
C0206	2113743E20	CAP CHIP 100nF 16V
C0207	2113743F08	CAP CHIP 220nF 5% 50V
C0208	2113741F13	CAP CHIP 330pF 50V
C0209	2311049J26	TANT CP 10uF 20% 16V
C0210	2113741M53	CAP CHIP 22nF 50V
C0211	2113743A19	CAP CHIP 100nF 16V
C0212	2113743E20	CAP CHIP 100nF 16V
C0221	2113743E20	CAP CHIP 100nF 16V
C0222	2311049A07	CAP TANT CP 1uF 10% 16V
C0223	2113741A57	CAP CHIP 33nF 50V
C0224	2311049J11	TANT CP 4.7uF 10% 16V
C0225	2113741F49	CAP CHIP 10nF 50V
C0226	2113743E20	CAP CHIP 100nF 16V
C0227	2311049A99	TANT CP 47uF 20% 10V
C0228	2311049A01	TANT CP 100nF 10% 35V
C0229	2113741F49	CAP CHIP 10nF 50V
C0230	2311049J23	CAP TANT CP 10uF 10% 6V
C0231	2113741F49	CAP CHIP 10nF 50V
C0233	2113740F39	CAP CHIP 33pF 5% 50V

Circuit Ref	Motorola Part No.	Description
C0234	2113743E20	CAP CHIP 100nF 16V
C0235	2113743A19	CAP CHIP 100nF 16V
C0242	2113741F17	CAP CHIP 470pF 50V
C0246	2113740F36	CAP CHIP 24pF 5% 50V
C0251	2113743E20	CAP CHIP 100nF 16V
C0252	2311049J23	CAP TANT CP 10uF 10% 6V
C0253	2311049A07	CAP TANT CP 1uF 10% 16V
C0254	2113743E20	CAP CHIP 100nF 16V
C0401	2113743A19	CAP CHIP 100nF 16V
C0402	2113741F37	CAP CHIP 3.3nF 50V
C0404	2311049A99	TANT CP 47uF 20% 10V
C0405	2113741F25	CAP CHIP 1nF 50V
C0406	2113741F25	CAP CHIP 1nF 50V
C0407	2113741F49	CAP CHIP 10nF 50V
C0408	2113741F49	CAP CHIP 10nF 50V
C0409	2109720D14	CER LOW DIST 100nF
C0410	2113741F17	CAP CHIP 470pF 50V
C0412	2113741F17	CAP CHIP 470pF 50V
C0415	2113741F17	CAP CHIP 470pF 50V
C0416	2113741F17	CAP CHIP 470pF 50V
C0418	2311049A05	TANT CP 470nF 10% 25V
C0419	2311049A99	TANT CP 47uF 20% 10V
C0421	2113741F17	CAP CHIP 470pF 50V
C0422	2113741F17	CAP CHIP 470pF 50V
C0423	2113741F17	CAP CHIP 470pF 50V
C0425	2113741F17	CAP CHIP 470pF 50V
C0426	2113741F17	CAP CHIP 470pF 50V
C0427	2113741F17	CAP CHIP 470pF 50V
C0431	2113741F17	CAP CHIP 470pF 50V
C0433	2113741F49	CAP CHIP 10nF 50V
C0441	2113741F17	CAP CHIP 470pF 50V
C0442	2113741F17	CAP CHIP 470pF 50V
C0451	2113741F17	CAP CHIP 470pF 50V

Circuit Ref	Motorola Part No.	Description
D0101	4813833C02	DUAL SOT MMBD6100
D0102	4813833C02	DUAL SOT MMBD6100
D0200	4813833C02	DUAL SOT MMBD6100
D0441	4813833C02	DUAL SOT MMBD6100
D0482	4813833C02	DUAL SOT MMBD6100
J0101	0902636Y01	CONNECTOR FLEX SIDE ENTRY
J0102	0904424J06	CONNECTOR 8 POS SMD T&R
J0103	0904424J06	CONNECTOR 8 POS SMD T&R
J0400	2804503J01	CONNECTOR ACCY 16 PIN
L0131	2462587Q40	COIL CHIP 270nH
L0132	2462587Q40	COIL CHIP 270nH
L0200	2462587K26	CHIP IND 33000 NH
L0401	2484657R01	Ferrite Bead
L0402	2484657R01	Ferrite Bead
Q0101	4880048M01	TSTR NPN DIG 47k/47k
Q0102	4880048M01	TSTR NPN DIG 47k/47k
Q0103	4880048M01	TSTR NPN DIG 47k/47k
Q0104	4880048M01	TSTR NPN DIG 47k/47k
Q0105	4813824A10	TSTR NPN 40V .2A B=50-150
Q0106	4880048M01	TSTR NPN DIG 47k/47k
Q0121	4880048M01	TSTR NPN DIG 47k/47k
Q0122	4880048M01	TSTR NPN DIG 47k/47k
Q0123	4880048M01	TSTR NPN DIG 47k/47k
Q0124	4880048M01	TSTR NPN DIG 47k/47k
Q0125	4880048M01	TSTR NPN DIG 47k/47k
Q0141	4880048M01	TSTR NPN DIG 47k/47k
Q0171	4880048M01	TSTR NPN DIG 47k/47k
Q0200	4813824A10	TSTR NPN 40V .2A B=50-150
Q0401	4813824A10	TSTR NPN 40V .2A B=50-150



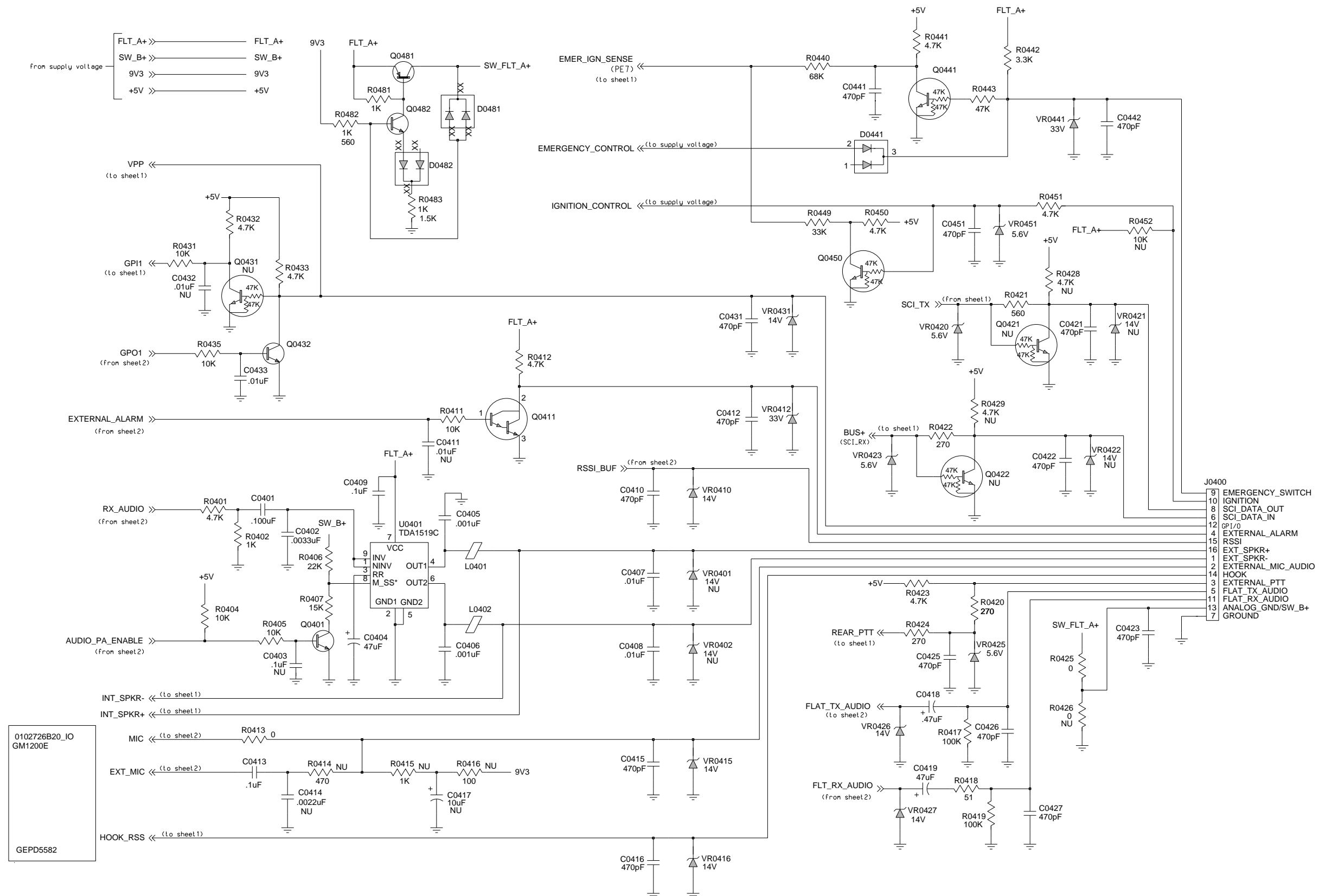
Controller_Audio Schematic Diagram

Circuit Ref	Motorola Part No.	Description
Q0411	4880052M01	TSTR NPN DRLNGTN MXTA
Q0432	4813824A10	TSTR NPN 40V .2A B=50-150
Q0441	4880048M01	TSTR NPN DIG 47k/47k
Q0450	4880048M01	TSTR NPN DIG 47k/47k
Q0481	4805128M27	TSTR PNP SOT89 BSR33 LH
Q0482	4813824A10	TSTR NPN 40V .2A B=50-150
R0100	0662057A65	4k7 1/16W 5%
R0101	0662057B05	200k 1/16W
R0102	0662057B05	200k 1/16W
R0103	0662057B05	200k 1/16W
R0104	0662057A89	47k 1/16W 5%
R0105	0662057A65	4k7 1/16W 5%
R0106	0662057A73	10k 1/16W 5%
R0107	0662057A57	2k2 1/16W 5%
R0108	0662057A73	10k 1/16W 5%
R0109	0662057A35	270 1/16W 5%
R0110	0662057A35	270 1/16W 5%
R0111	0662057A65	4k7 1/16W 5%
R0112	0662057A65	4k7 1/16W 5%
R0113	0662057A85	33k 1/16W 5%
R0114	0662057A93	68k 1/16W 5%
R0115	0662057A89	47k 1/16W 5%
R0116	0662057A73	10k 1/16W 5%
R0118	0662057A89	47k 1/16W 5%
R0119	0662057A73	10k 1/16W 5%
R0120	0662057A89	47k 1/16W 5%
R0121	0662057A65	4k7 1/16W 5%
R0122	0662057A89	47k 1/16W 5%
R0123	0662057A89	47k 1/16W 5%
R0124	0662057A65	4k7 1/16W 5%
R0125	0662057A73	10k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0126	0662057A73	10k 1/16W 5%
R0127	0662057A65	4k7 1/16W 5%
R0128	0662057A73	10k 1/16W 5%
R0129	0662057A73	10k 1/16W 5%
R0130	0662057A73	10k 1/16W 5%
R0131	0662057A65	4k7 1/16W 5%
R0139	0662057B47	0 1/16W
R0142	0662057A73	10k 1/16W 5%
R0144	0662057A65	4k7 1/16W 5%
R0145	0662057A73	10k 1/16W 5%
R0147	0662057A35	270 1/16W 5%
R0151	0662057A01	10 1/16W 5%
R0152	0662057A01	10 1/16W 5%
R0153	0662057A35	270 1/16W 5%
R0154	0662057A35	270 1/16W 5%
R0161	0662057A25	100 1/16W 5%
R0162	0662057A25	100 1/16W 5%
R0163	0662057A25	100 1/16W 5%
R0164	0662057A25	100 1/16W 5%
R0170	0662057B47	0 1/16W
R0171	0662057A73	10k 1/16W 5%
R0200	0662057A73	10k 1/16W 5%
R0201	0662057A89	47k 1/16W 5%
R0202	0662057A89	47k 1/16W 5%
R0203	0662057A73	10k 1/16W 5%
R0204	0662057A25	100 1/16W 5%
R0205	0662057A49	1k 1/16W 5%
R0206	0662057A41	470 1/16W 5%
R0208	0662057A73	10k 1/16W 5%
R0209	0662057A73	10k 1/16W 5%
R0210	0662057A49	1k 1/16W 5%
R0221	0662057B47	0 1/16W
R0222	0662057A89	47k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0223	0662057R92	47.5k .1W 1%
R0224	0662057A73	10k 1/16W 5%
R0225	0662057A83	27k 1/16W 5%
R0231	0662057B47	0 1/16W
R0232	0662057A93	68k 1/16W 5%
R0233	0662057A73	10k 1/16W 5%
R0235	0662057A93	68k 1/16W 5%
R0236	0662057A85	33k 1/16W 5%
R0241	0662057B47	0 1/16W
R0246	0662057A35	270 1/16W 5%
R0251	0662057R92	47.5k .1W 1%
R0252	0662057R92	47.5k .1W 1%
R0401	0662057A65	4k7 1/16W 5%
R0402	0662057A49	1k 1/16W 5%
R0404	0662057A73	10k 1/16W 5%
R0405	0662057A73	10k 1/16W 5%
R0406	0662057A81	22k 1/16W 5%
R0407	0662057A77	15k 1/16W 5%
R0411	0662057A73	10k 1/16W 5%
R0412	0662057A65	4k7 1/16W 5%
R0413	0662057B47	0 1/16W
R0417	0662057A97	100k 1/16W
R0418	0662057A18	51 1/16W 5%
R0419	0662057A97	100k 1/16W
R0420	0662057A35	270 1/16W 5%
R0421	0662057A43	560 1/16W 5%
R0422	0662057A35	270 1/16W 5%
R0423	0662057A65	4k7 1/16W 5%
R0424	0662057A35	270 1/16W 5%
R0425	0662057A09	22 1/16W
R0433	0662057A65	4k7 1/16W 5%
R0435	0662057A73	10k 1/16W 5%
R0440	0662057A93	68k 1/16W 5%

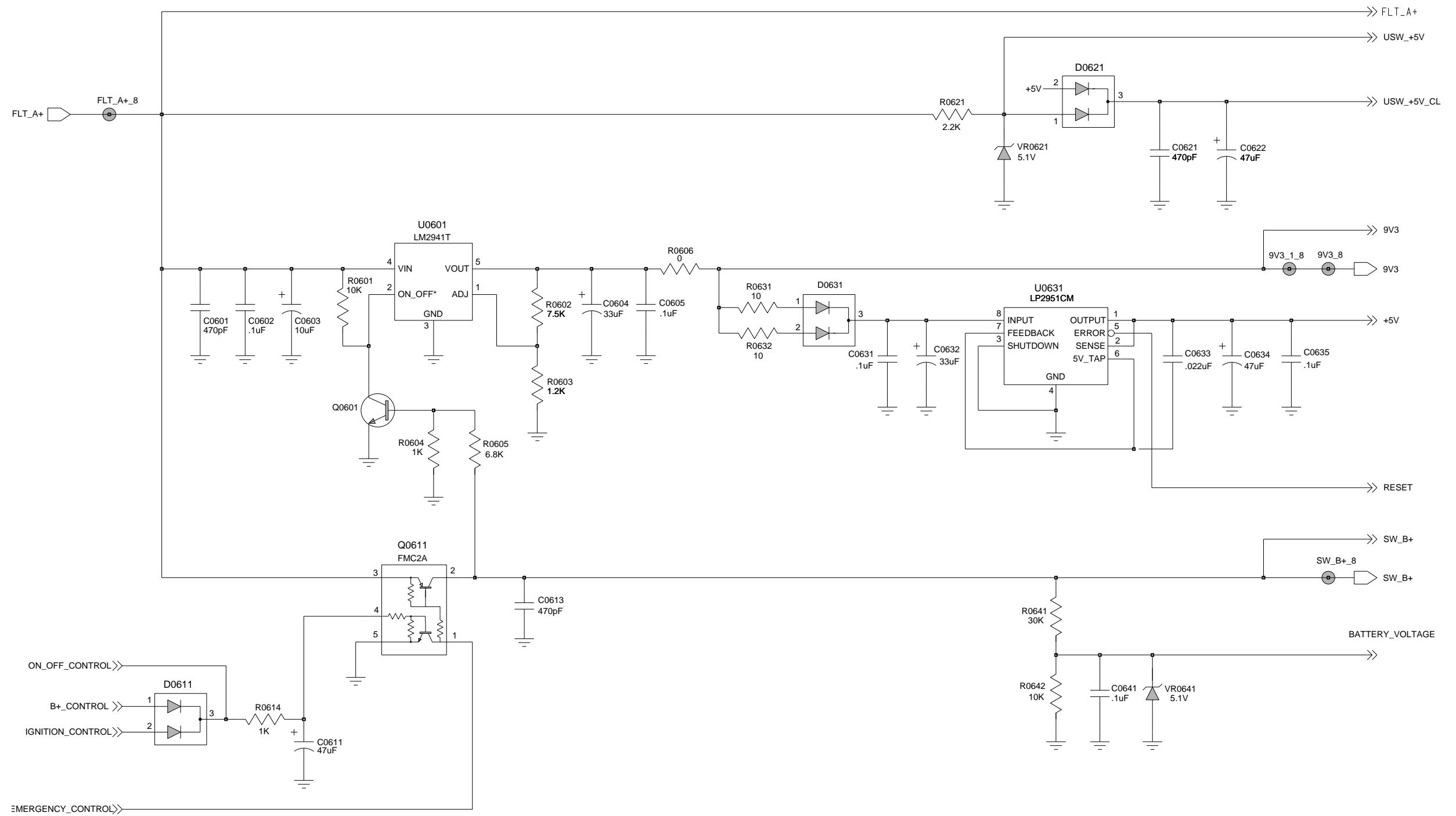
Circuit Ref	Motorola Part No.	Description
R0441	0662057A65	4k7 1/16W 5%
R0442	0662057A61	3k3 1/16W 5%
R0443	0662057A89	47k 1/16W 5%
R0449	0662057A85	33k 1/16W 5%
R0450	0662057A65	4k7 1/16W 5%
R0451	0662057A65	4k7 1/16W 5%
R0481	0662057A49	1k 1/16W 5%
R0482	0662057A43	560 1/16W 5%
R0483	0662057A53	1k5 1/16W 5%
U0101	5113802A48	68HC11K1_QFP
U0102	5186137B01	49F040
U0103	5105662U54	HYBRID 32KX8 SRAM TEST
U0105	5113805A30	IC 10F8 DCDR/REMUX 74HC138
U0106	5113805A06	74AC08 4 AND GATES
U0107	5186048B01	EEPROM_X25128
U0171	5105750U28	SNGL ANALOG SWITCH SMD
U0172	5105279V65	TC7S08F
U0201	5105835U45	ASFIC
U0202	5183222M49	IC QUAD OPAMP __3403_
U0251	5113818A03	IC HIGH PERFORMANCE SI
U0401	5109699X01	AUDIO PA TDA1915C
VR0101	4813830A23	10V 5% 20mA 350mW
VR0102	4813830A14	5.1V 5% 225mW
VR0161	4813830A15	5.6V 5% 225mW
VR0410	4813830A27	14V 5% 225MW MMB
VR0412	4813830A40	SOC23 AUTO SDN
VR0415	4813830A27	14V 5% 225MW
VR0416	4813830A27	14V 5% 225MW
VR0420	4813830A15	5.6V 5% 225mW
VR0423	4813830A15	5.6V 5% 225mW
VR0425	4813830A15	5.6V 5% 225mW



Controller_IO Schematic Diagram
3 of 3

Controller_IO Schematic Diagram

Circuit Ref	Motorola Part No.	Description
VR0426	4813830A27	14V 5% 225MW
VR0427	4813830A27	14V 5% 225MW
VR0431	4813830A27	14V 5% 225MW
VR0441	4813830A40	SOC23 AUTO SDN
VR0451	4813830A15	5.6V 5% 225mW



0102726B19
 SUPPLY VLTG

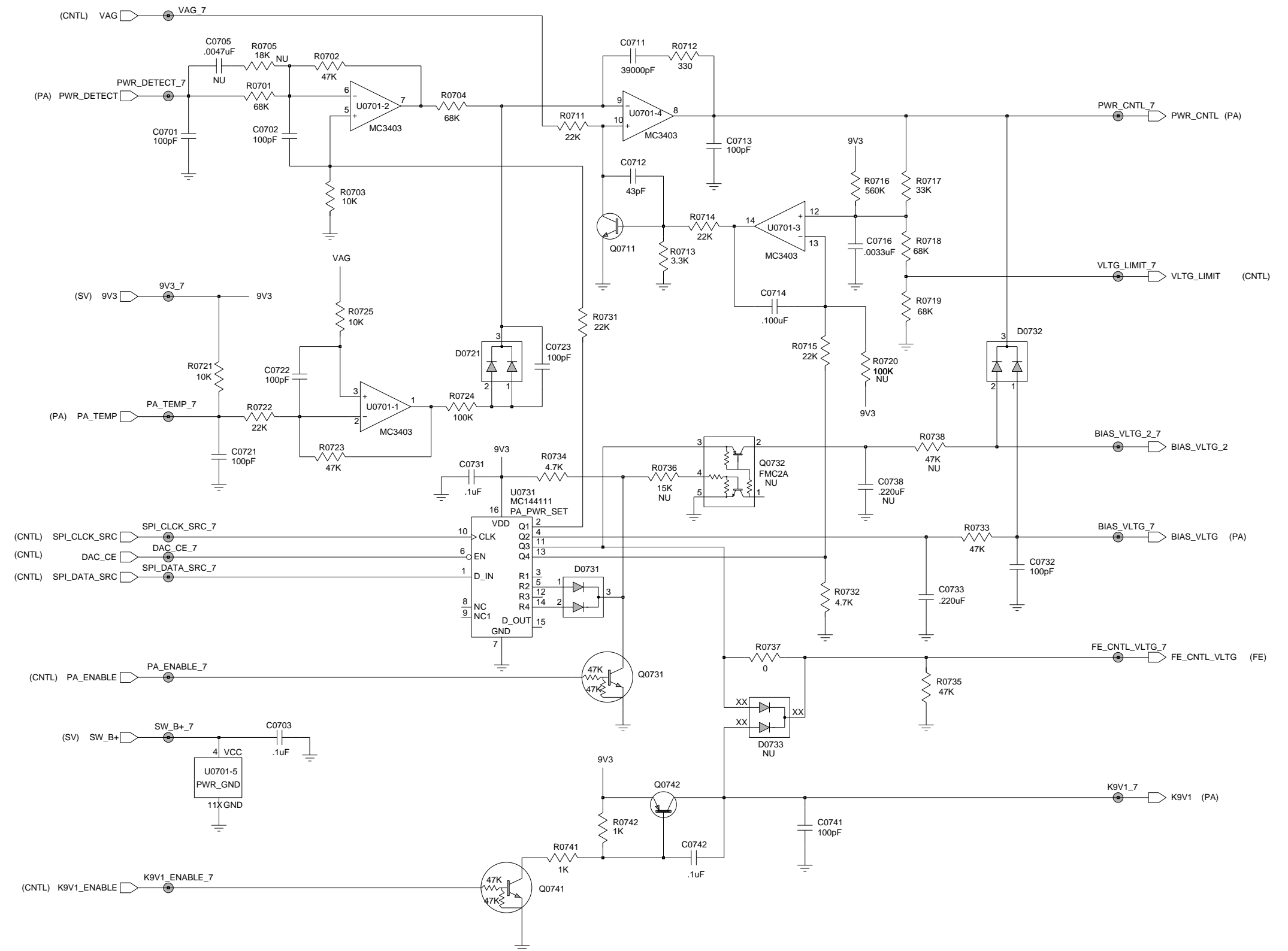
 GEPD5577

Supply Voltage Schematic Diagram

Supply Voltage
Parts List

Circuit Ref	Motorola Part No.	Description
C0601	2113741F17	470pF 50V
C0602	2113741B69	100nF 50V
C0603	2380090M24	LYT 10uF 50V 20%
C0604	2311049A97	TANT CHIP 33 UF 16
C0605	2113743E20	100nF 16V
C0611	2311049A97	TANT CP 33uF 20% 10V
C0613	2113741F17	470pF 50V
C0621	2113741F17	470pF 50V
C0622	2311049A99	TANT CP 47uF 20% 10V
C0631	2113743E20	100nF 16V
C0632	2311049A97	CAP TANT CHIP 33 UF 16
C0633	2113743E07	22nF 16V
C0634	2311049A99	TANT CP 47uF 20% 10V
C0635	2113743E20	100nF 16V
C0641	2113743E20	100nF 16V
D0611	4813833C02	DUAL SOT MMBD6100
D0621	4813833C02	DUAL SOT MMBD6100
D0631	4813833C02	DUAL SOT MMBD6100
Q0601	4813824A10	NPN 40V .2A B=50-150
Q0611	4805921T02	DUAL ROHM FMC2 RH
R0601	0662057A73	10k 1/16W 5%
R0602	0660076E70	FILM 7500 1 1
R0603	0660076E51	FILM 1200 1 1
R0604	0662057A49	1k 1/16W 5%
R0605	0662057A69	6k8 1/16W 5%
R0606	0662057B47	0 1/16W
R0614	0662057A53	1k 1/16W 5%
R0621	0662057A81	22 1/16W 5%
R0631	0662057A01	10 1/16W 5%
R0632	0662057A01	10 1/16W 5%
R0641	0662057A84	30k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0642	0662057A73	10k 1/16W 5%
U0601	5105625U25	IC 9.3V REG 2941
U0631	5105469E65	IC VLTG REGLTR LP2951C
VR0621	4813830A14	5.1V 5% 225mW
VR0641	4813830A14	5.1V 5% 225mW

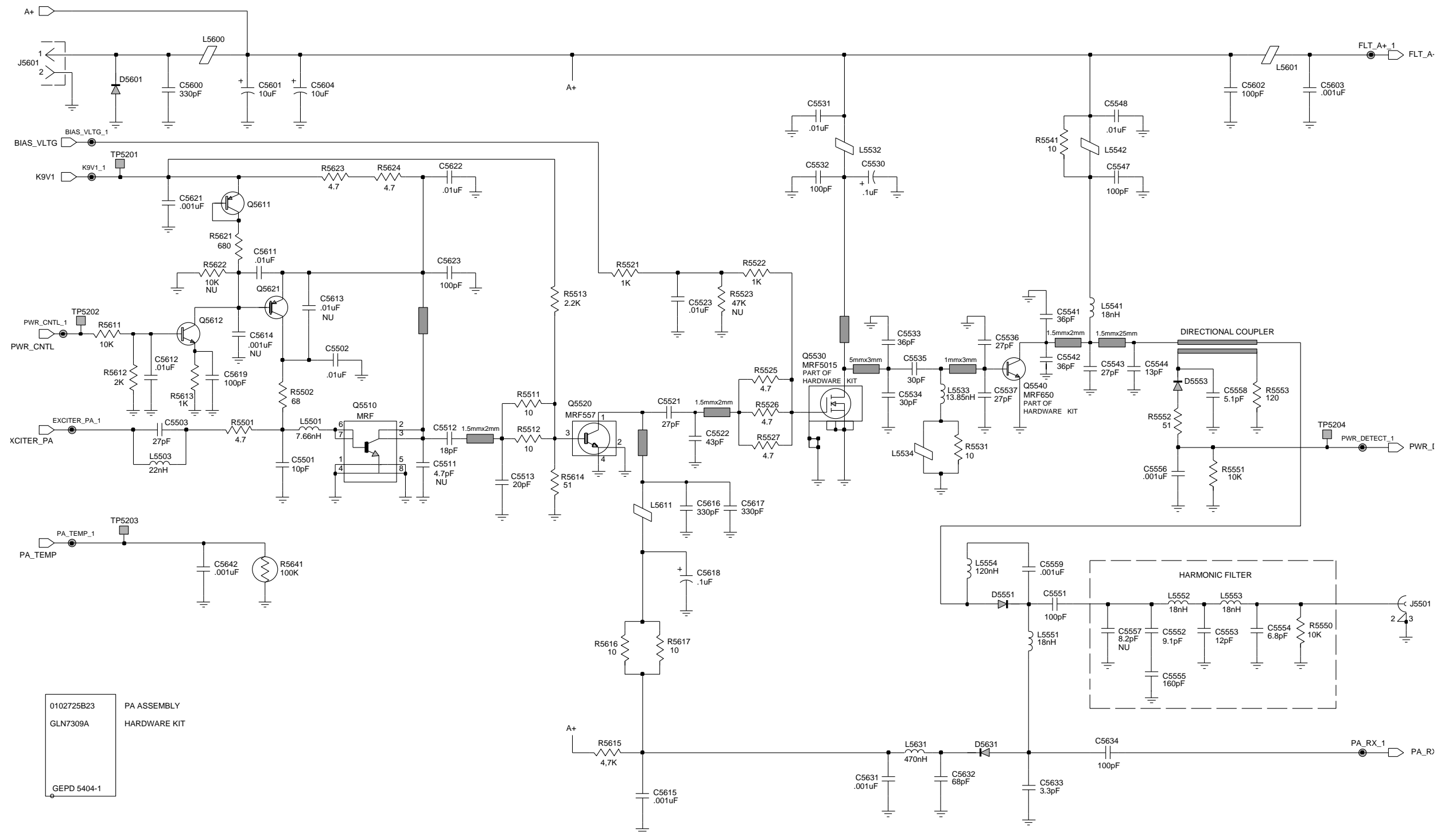


0102726B22 UHF PWR CNTL
GEPD 5579

**Power Control
Parts List**

Circuit Ref	Motorola Part No.	Description
C0701	2113740F51	100pF 5% 50V
C0702	2113740F51	100pF 5% 50V
C0703	2113743E20	100nF 16V
C0711	2113741A59	39000pF
C0712	2113740F42	43pF 5% 50V
C0713	2113740F51	100pF 5% 50V
C0714	2113743A19	100nF 16V
C0716	2113741F37	3.3nF 50V
C0721	2113740F51	100pF 5% 50V
C0722	2113740F51	100pF 5% 50V
C0723	2113740F51	100pF 5% 50V
C0731	2113743E20	100nF 16V
C0732	2113740F51	100pF 5% 50V
C0733	2113743A23	220nF 16V
C0741	2113740F51	100pF 5% 50V
C0742	2113743E20	100nF 16V
D0721	4813833C02	DUAL SOT MMBD6100
D0731	4813833C02	DUAL SOT MMBD6100
D0732	4813833C02	DUAL SOT MMBD6100
Q0711	4813824A10	NPN 40V .2A B=50-150
Q0731	4880048M01	NPN DIG 47k/47k
Q0741	4880048M01	NPN DIG 47k/47kx
Q0742	4805128M27	PNP SOT89 BSR33
R0701	0662057A93	68k 1/16W 5%
R0702	0662057A89	47k 1/16W 5%
R0703	0662057A73	10k 1/16W 5%
R0704	0662057A93	68k 1/16W 5%
R0711	0662057A81	22k 1/16W 5%
R0712	0662057A37	330 1/16W 5%
R0713	0662057A61	3k3 1/16W 5%
R0714	0662057A81	22k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0715	0662057A81	22k 1/16W 5%
R0716	0662057B16	560k 1/16W 5%
R0717	0662057A85	33k 1/16W 5%
R0718	0662057A93	68k 1/16W 5%
R0719	0662057A93	68k 1/16W 5%
R0721	0662057A73	10k 1/16W 5%
R0722	0662057A81	22k 1/16W 5%
R0723	0662057A89	47k 1/16W 5%
R0724	0662057A97	100k 1/16W
R0725	0662057A73	10k 1/16W 5%
R0731	0662057A81	22k 1/16W 5%
R0732	0662057A65	4k7 1/16W 5%
R0733	0662057A89	47k 1/16W 5%
R0734	0662057A65	4k7 1/16W 5%
R0735	0662057A89	47k 1/16W 5%
R0737	0662057B47	0 1/16W
R0741	0662057A49	1k 1/16W 5%
R0742	0662057A49	1k 1/16W 5%
U0701	5183222M49	IC QUAD OPAMP __3403__
U0731	5113811G02	IC D/A CONV & BIT 4 CHAN W/SPI



UHF (403-470MHz) Power Amplifier 5-25W Schematic Diagram

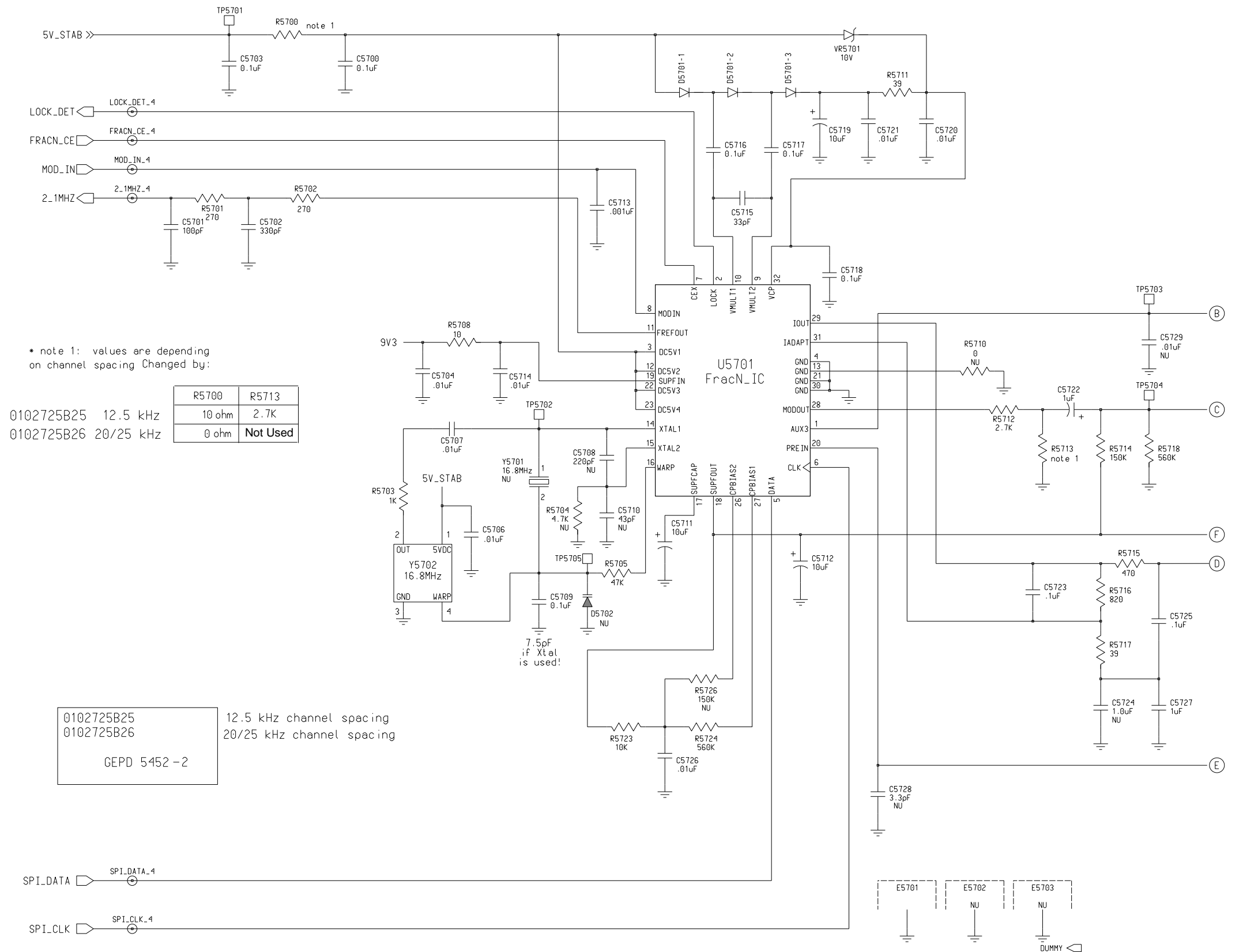
**Power Amplifier 5-25W
Parts List**

Circuit Ref	Motorola Part No.	Description
C5501	2113740F27	10pF 5% 50V
C5502	2113741F49	10nF 50V
C5503	2113740F37	27pF 5% 50V
C5512	2113740F33	18pF 5% 50V
C5513	2113740F34	20pF 5% 50V
C5521	2113740A39	27pF 5% 50V
C5522	2113740A44	43pF 5% 50V
C5523	2113741F49	10nF 50V
C5530	2311049A01	TANT CP 100nF 10% 35V
C5531	2113741F49	10nF 50V
C5532	2113740F51	100pF 5% 50V
C5533	2111078B31	HQ 36pF 5%
C5534	2111078B27	HQ 30pF 5%
C5535	2111078B27	HQ 30pF 5%
C5536	2111078B25	HQ 27pF 5%
C5537	2111078B25	HQ 27pF 5%
C5541	2111078B31	HQ 36pF 5%
C5542	2111078B31	HQ 36pF 5%
C5543	2111078B25	HQ 27pF 5%
C5544	2111078B16	HQ 13pF 5%
C5547	2111078B42	HQ 100pF 5%
C5548	2113741F49	10nF 50V
C5551	2111078B42	HQ 100pF
C5552	2111078B12	HQ 9.1pF 5%
C5553	2111078B15	HQ 12pF 5%
C5554	2111078B09	HQ 6.8pF 5%
C5555	2111078B48	HQ 160pF 5%
C5556	2113741F25	1nF 50V
C5558	2113740F20	5.1pF 5% 50V
C5559	2113741F25	1nF 50V
C5600	2113740A67	330pF 5% 50V

Circuit Ref	Motorola Part No.	Description
C5602	2113740F51	100pF 5% 50V
C5603	2113741F25	1nF 50V
C5604	2311049A45	TANT CP 10uF 10% 35V
C5611	2113741F49	10nF 50V
C5612	2113741F49	10nF 50V
C5615	2113741F25	1nF 50V
C5616	2113740A67	330pF 5% 50V
C5617	2113740A67	330pF 5% 50V
C5618	2311049A01	TANT CP 100nF 10% 35V
C5619	2113740F51	100pF 5% 50V
C5621	2113741F25	1nF 50V
C5622	2113741F49	10nF 50V
C5623	2113740F51	100pF 5% 50V
C5631	2113741F25	1nF 50V X7R
C5632	2111078B38	HQ 68pF 5%
C5633	2113740F15	3.3pF 5% 50V
C5634	2113740F51	100pF 5% 50V
C5642	2113741F25	1nF 50V
D5551	4802482J02	DIODE PIN MA/COM
D5553	4880236E05	DIODE CHIP SCHOTTKY
D5601	4813832B35	DIODE TRANSORB
D5631	4802482J02	DIODE PIN MA/COM
L5501	2460591A11	SQUARE COIL 7.66nH 3T
L5503	2462587T38	COIL CHIP 22nH 5%
L5532	2484657R01	Ferrite Bead
L5533	2460591C23	SQUARE COIL 16nH 3T
L5534	2484657R01	Ferrite Bead
L5541	2460591X01	COIL SQUARE
L5542	2484657R01	Ferrite Bead
L5551	2460591X01	COIL SQUARE
L5552	2460591X01	COIL SQUARE
L5553	2460591X01	COIL SQUARE
L5554	2462587T16	COIL CHIP 120nH

Circuit Ref	Motorola Part No.	Description
L5600	2484657R01	Ferrite Bead
L5601	2484657R01	Ferrite Bead
L5611	2484657R01	Ferrite Bead
L5631	2462587T23	COIL CHIP 470nH
Q5510	4813827A26	NPN SML SIG MRF8372
Q5520	4813827D03	G=9.0DB 870MHZ
Q5530	4805537W01	TRANS MOS 1 FET
Q5540	4880225C30	TSTR RF 14W/50W UHF
Q5611	4805128M17	PNP40V .2A
Q5612	4813824A10	NPN 40V .2A
Q5621	4805128M17	PNP40V .2A
R5501	0662057C19	4R7 1/10W 5%
R5502	0662057A21	68 1/16W 5%
R5511	0662057A01	10 1/16W 5%
R5512	0662057A01	10 1/16W 5%
R5513	0662057A57	2k2 1/16W 5%
R5521	0662057A49	1k 1/16W 5%
R5522	0662057A49	1k 1/16W 5%
R5525	0662057C19	4R7 1/10W 5%
R5526	0662057C19	4R7 1/10W 5%
R5527	0662057C19	4R7 1/10W 5%
R5531	0680194M01	10 1W 5%
R5541	0680194M01	10 1W 5%
R5550	0662057A73	10k 1/16W 5%
R5551	0662057A73	10k 1/16W 5%
R5552	0662057A18	51 1/16W 5%
R5553	0683962T51	120 1W 5%
R5611	0662057A73	10k 1/16W 5%
R5612	0662057A56	2k 1/16W 5%
R5613	0662057A49	1k 1/16W 5%
R5614	0662057A18	51 1/16W 5%
R5615	0662057A65	4,7k 1/16W 5%
R5616	0680194M01	10 1W 5%

Circuit Ref	Motorola Part No.	Description
R5617	0680194M01	10 1W 5%
R5621	0662057A45	680 OHMS 5%
R5623	0662057C19	4R7 1/10W 5%
R5624	0662057C19	4R7 1/10W 5%
R5641	0680149M02	THERMISTOR CHIP 100K @25C

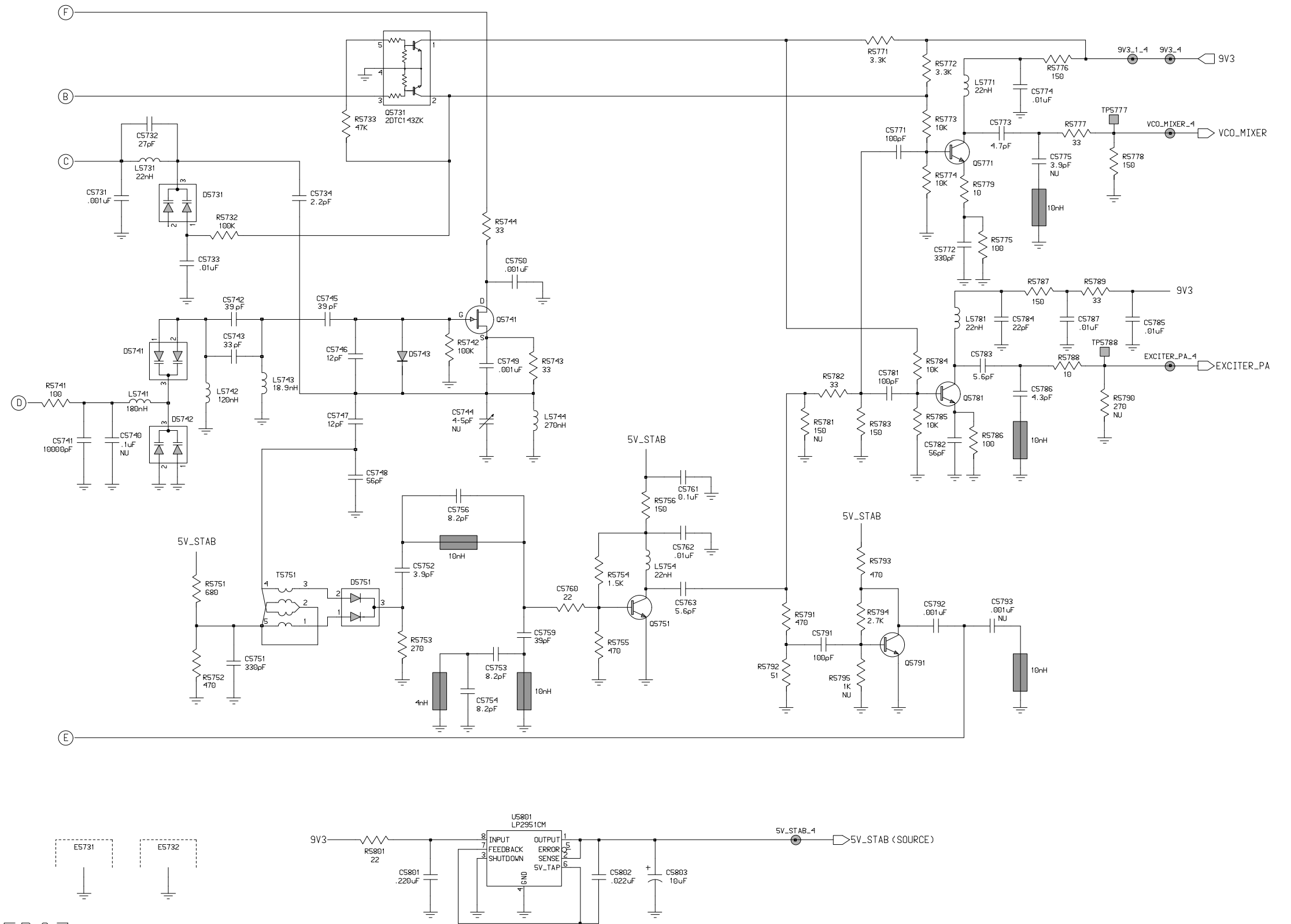


UHF (403-470MHz) Synthesizer Schematic Diagram

**Synthesizer
Parts List**

Circuit Ref	Motorola Part No.	Description
C5700	2113743K15	100nF 16V
C5701	2113740F51	100pF 5% 50V
C5702	2113741F13	330pF 50V
C5703	2113743K15	100nF 16V
C5704	2113741F49	10nF 50V
C5706	2113741F49	10nF 50V
C5707	2113741F49	10nF 50V
C5709	2113743K15	100nF 16V
C5711	2311049A63	TANT CP 10uF 10% 10V
C5712	2311049J26	TANT CP 10uF 20% 16V
C5713	2113741F25	1nF 50V
C5714	2113741F49	10nF 50V
C5715	2113740F39	33pF 5% 50V
C5716	2113743K15	100nF 16V
C5717	2113743K15	100nF 16V
C5718	2113743K15	100nF 16V
C5719	2311049A19	TANT CP 10uF 10% 25V
C5720	2113741F49	10nF 50V
C5721	2113741F49	10nF 50V
C5722	2311049A07	TANT CP 1uF 10% 16V
C5723	2109720D14	CER LOW DIST 100nF
C5725	2109720D14	CER LOW DIST 100nF
C5726	2113741F49	10nF 50V
C5727	0811051A19	MTLZ POLY 1uF 5%
D5701	4802233J09	DIODE TRIPLE SOT143-RH
E5701	2605915V01	SHLD PCB MOUNT 1
R5700	0662057A01 0662057B47	10 1/16W 5% 0 ohms
R5701	0662057A35	270 1/16W 5%
R5702	0662057A35	270 1/16W 5%
R5703	0662057A49	1k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R5705	0662057A89	47k 1/16W 5%
R5708	0662057A01	10 1/16W 5%
R5711	0662057A15	39 1/16W 5%
R5712	0662057A59	2k7 1/16W 5%
R5713	0662057A59	2k7 1/16W 5% (12.5kHz)
R5714	0662057B02	150k 1/16W
R5715	0662057A41	470 1/16W 5%
R5716	0662057A47	820 1/16W 5%
R5717	0662057A15	39 1/16W 5%
R5718	0662057B16	560k 1/16W 5%
R5723	0662057A73	10k 1/16W 5%
R5724	0662057B16	560k 1/16W 5%
U5701	5105457W72	CC CONT 5105191W59
VR5701	4813830A23	DIODE 10V 5% 20mA 350mW
Y5702	4809863M01	REF OSC 16.8 MHz TEMPUS



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GEPD 5453-1

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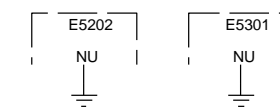
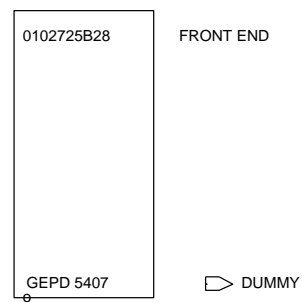
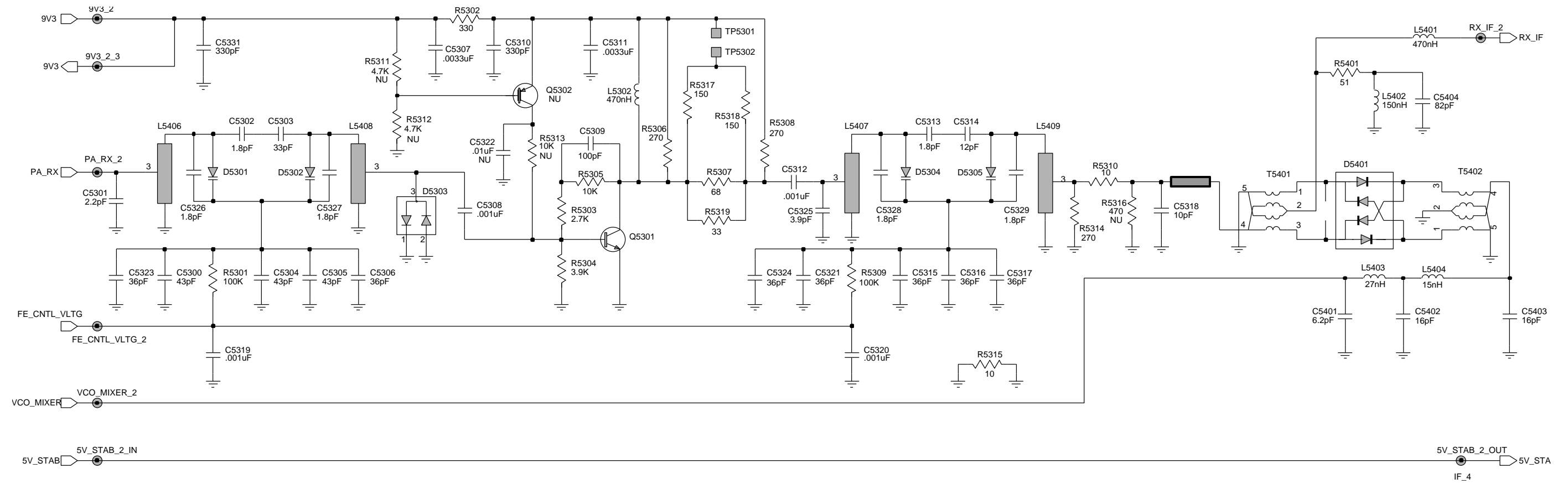
UHF (403-470MHz) Voltage Controlled Oscillator Schematic Diagram

Voltage Controlled Oscillator Parts List

Circuit Ref	Motorola Part No.	Description
C5731	2113741F25	1nF 50V
C5732	2113740F37	27pF 5% 50V
C5733	2113741F49	10nF 50V
C5734	2113740F11	2.2pF 5% 50V
C5741	2113741A45	10nF 50V
C5742	2113740F41	39pF 5% 50V
C5743	2113740F39	33pF 5% 50V
C5745	2113740F41	39pF 5% 50V
C5746	2113740F29	12pF 5% 50V
C5747	2113740F29	12pF 5% 50V
C5748	2113740F45	56pF 5% 50V
C5749	2113741F25	1nF 50V
C5750	2113741F25	1nF 50V
C5751	2113741F13	330pF 50V
C5752	2113740F17	3.9pF 5% 50V
C5753	2113740F25	8.2pF 5% 50V
C5754	2113740F25	8.2pF 5% 50V
C5756	2113740F25	8.2pF 5% 50V
C5759	2113740F41	39pF 5% 50V
C5760	0662057A09	22 1/16W 5%
C5761	2113743K15	100nF 16V
C5762	2113741F49	10nF 50V
C5763	2113740F21	5.6pF 5% 50V
C5771	2113740F51	100pF 5% 50V
C5772	2113741F13	330pF 50V
C5773	2113740F19	4.7pF 5% 50V
C5774	2113741F49	10nF 50V
C5781	2113740F51	100pF 5% 50V
C5782	2113740F45	56pF 5% 50V
C5783	2113740F21	5.6pF 5% 50V
C5784	2113740F35	22pF 5% 50V

Circuit Ref	Motorola Part No.	Description
C5785	2113741F49	10nF 50V
C5786	2113740F18	4.3pF 5%
C5787	2113741F49	10nF 50V
C5791	2113740F51	100pF 5% 50V
C5792	2113741F25	1nF 50V
C5801	2113743A23	220nF 16V
C5802	2113743E07	22nF 16V
C5803	2311049A63	TANT CP 10uF 10% 10V
D5731	4805649Q13	DIODE VCTR 1SV228
D5741	4805649Q13	DIODE VCTR 1SV228
D5742	4805649Q13	DIODE VCTR 1SV228
D5743	4880236E05	DIODE CHIP SCHOTTKY
D5751	4805218N57	DIODE DUAL SCHOTTKY
E5731	2605915V01	SHLD PCB MOUNT 1
E5732	2602641Y01	SHIELD VCO
L5731	2462587T38	COIL CHIP 22nH 5%
L5741	2462587T18	COIL CHIP 180nH
L5742	2462587T16	COIL CHIP 120nH
L5743	2405619V01	COIL HEL MOLDED SMD
L5744	2462587T20	COIL CHIP 270nH
L5754	2462587T38	COIL CHIP 22nH 5%
L5771	2462587T38	COIL CHIP 22nH 5%
L5781	2462587T38	COIL CHIP 22nH 5%
Q5731	4805921T09	XSTR DUAL ROHM FMG8
Q5741	4813823A05	TSTR N-CH RF JFET MMBU310LT1
Q5751	4882022N70	TRANSISTOR NPN
Q5771	4882022N70	TRANSISTOR NPN
Q5781	4882022N70	TRANSISTOR NPN
Q5791	4882022N70	TRANSISTOR NPN
R5732	0662057A97	100k 1/16W
R5733	0662057A89	47k 1/16W 5%
R5741	0662057A25	100 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R5742	0662057A97	100k 1/16W
R5743	0662057A13	33 1/16W 5%
R5744	0662057A13	33 1/16W 5%
R5751	0662057A45	680 Ohms 5%
R5752	0662057A41	470 1/16W 5%
R5753	0662057A35	270 1/16W 5%
R5754	0662057A53	1k5 1/16W 5%
R5755	0662057A41	470 1/16W 5%
R5756	0662057A29	150 1/16W 5%
R5771	0662057A61	3k3 1/16W 5%
R5772	0662057A61	3k3 1/16W 5%
R5773	0662057A73	10k 1/16W 5%
R5774	0662057A73	10k 1/16W 5%
R5775	0662057A25	100 1/16W 5%
R5776	0662057A29	150 1/16W 5%
R5777	0662057A13	33 1/16W 5%
R5778	0662057A29	150 1/16W 5%
R5779	0662057A01	10 1/16W 5%
R5782	0662057A13	33 1/16W 5%
R5783	0662057A29	150 1/16W
R5784	0662057A73	10k 1/16W
R5785	0662057A73	10k 1/16W
R5786	0662057A25	100 1/16W
R5787	0662057A29	150 1/16W
R5788	0662057A01	10 1/16W 5%
R5789	0662057A13	33 1/16W 5%
R5791	0662057A41	470 1/16W
R5792	0662057A18	51 1/16W 5%
R5793	0662057A41	470 1/16W
R5794	0662057A59	2k7 1/16W
R5801	0662057A09	22 1/16W 5%
T5751	2505515V03	XFMR JEDI MIXER SMD 4:1
U5801	5105469E65	IC VLTG REGLTR LP2951C

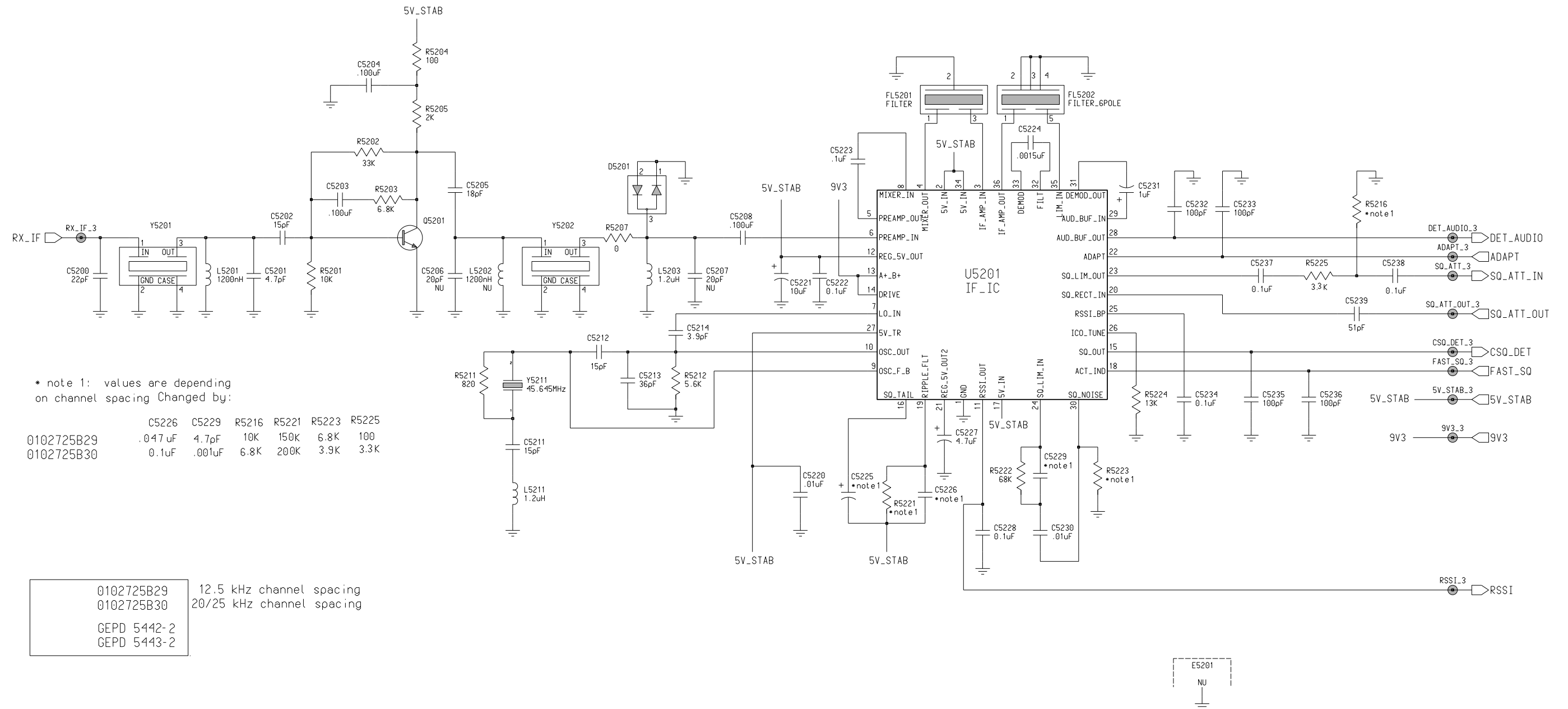


UHF (403-470MHz) RX-FE Schematic Diagram

**RX-FE
Parts List**

Circuit Ref	Motorola Part No.	Description
C5300	2113740F42	43pF 5% 50V
C5301	2113740F11	2.2pF 5% 50V
C5302	2113740F09	1.8pF 5% 50V
C5303	2113740F39	33pF 5% 50V
C5304	2113740F42	43pF 5% 50V
C5305	2113740F42	43pF 5% 50V
C5306	2113740F40	36pF 5% 50V
C5307	2113741F37	3.3nF 50V
C5308	2113741F25	1nF 50V
C5309	2113740F51	100pF 5% 50V
C5310	2113741F13	330pF 50V
C5311	2113741F37	3.3nF 50V
C5312	2113741F25	1nF 50V
C5313	2113740F09	1.8pF 5% 50V
C5314	2113740F29	12pF 5% 50V
C5315	2113740F40	36pF 5% 50V
C5316	2113740F40	36pF 5% 50V
C5317	2113740F40	36pF 5% 50V
C5318	2113740F27	10pF 5% 50V
C5319	2113741F25	1nF 50V
C5320	2113741F25	1nF 50V
C5321	2113740F40	36pF 5% 50V
C5323	2113740F40	36pF 5% 50V
C5324	2113740F40	36pF 5% 50V
C5325	2113740F17	3.9pF 5% 50V
C5326	2113740F09	1.8pF 5% 50V
C5327	2113740F09	1.8pF 5% 50V
C5328	2113740F09	1.8pF 5% 50V
C5329	2113740F09	1.8pF 5% 50V
C5331	2113741F13	330pF 50V
C5401	2113740F22	6.2pF 5% 50V

Circuit Ref	Motorola Part No.	Description
C5402	2113740F32	16pF 5% 50V
C5403	2113740F32	16pF 5% 50V
C5404	2113740F49	82pF 5% 50V
D5301	4862824C01	VARACTOR CHIP
D5302	4862824C01	VARACTOR CHIP
D5303	4880154K03	DUAL SCHOTTKY SOT23
D5304	4862824C01	DIODE VARACTOR
D5305	4862824C01	DIODE VARACTOR
D5401	4880174R01	QUAD SOIC 8 PIN
L5302	2462587T23	COIL CHIP 470nH
L5401	2462587T23	COIL CHIP 470nH
L5402	2462587T17	COIL CHIP 150nH
L5403	2462587X46	IND CHIP LO-PRO 27.0 N
L5404	2462587X43	IND CHIP LO-PRO 15.0 N
Q5301	4882022N70	TRANSISTOR NPN
R5301	0662057A97	100k 1/16W
R5302	0662057A37	330 1/16W 5%
R5303	0662057A59	2k7 1/16W 5%
R5304	0662057A63	3k9 1/16W 5%
R5305	0662057A73	10k 1/16W 5%
R5306	0662057A35	270 1/16W 5%
R5307	0662057A21	68 1/16W 5%
R5308	0662057A35	270 1/16W 5%
R5309	0662057A97	100k 1/16W
R5310	0662057A01	10 1/16W 5%
R5314	0662057A35	270 1/16W 5%
R5315	0680194M01	10 1W 5%
R5317	0662057A29	150 1/16W 5%
R5318	0662057A29	150 1/16W 5%
R5319	0662057A13	33 1/16W 5%
R5401	0662057A18	51 1/16W 5%
T5401	2505515V03	XFMR JEDI MIXER SMD 4:1
T5402	2505515V04	XMFR MIXER 5:1

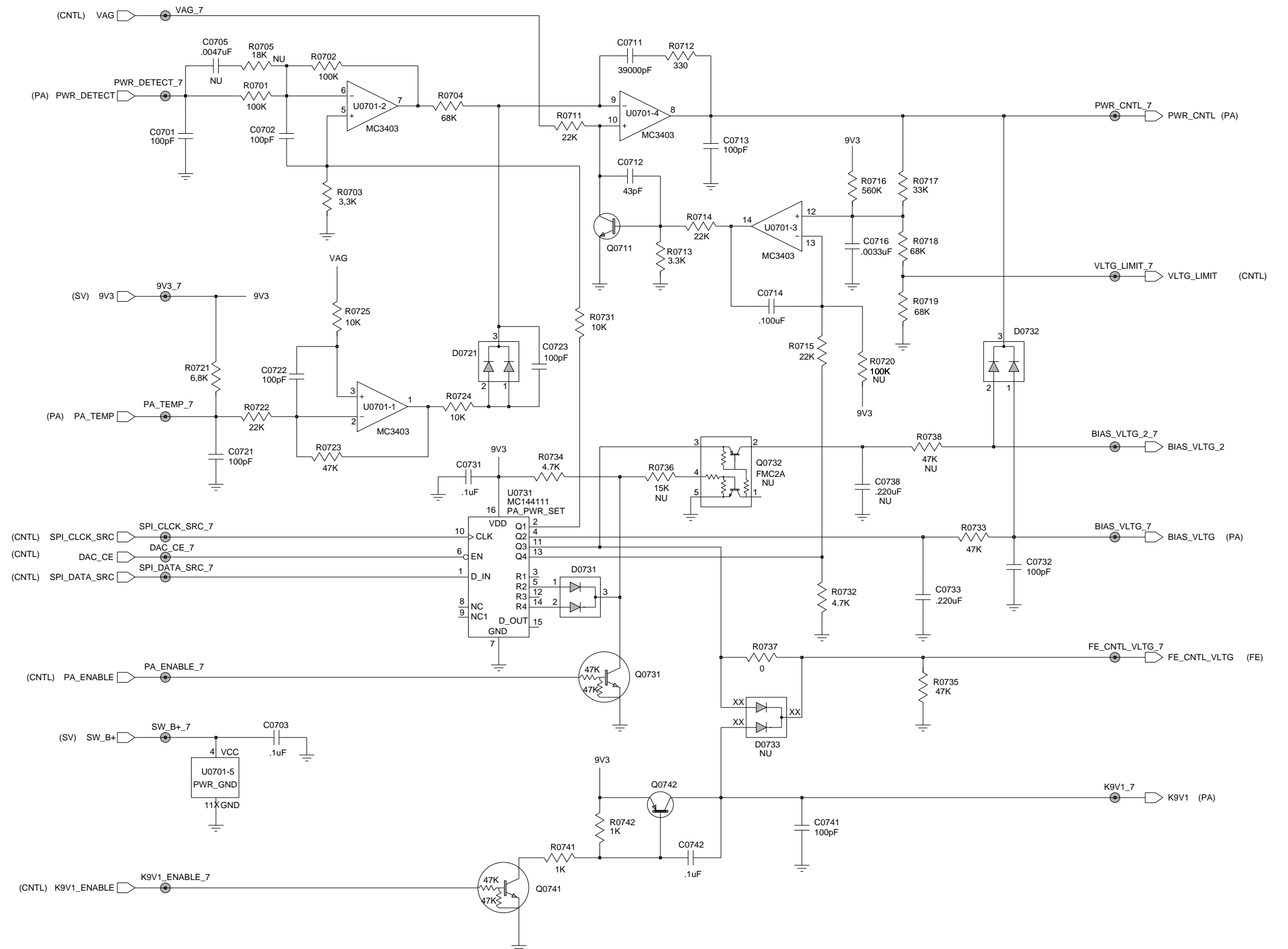


**RX-IF
Parts List**

Circuit Ref	Motorola Part No.	Description
C5200	2113740F35	22pF 5% 50V
C5201	2113740F19	4.7pF 5% 50V
C5202	2113740F31	15pF 5% 50V
C5203	2113743A19	100nF 16V
C5204	2113743A19	100nF 16V
C5205	2113740F33	18pF 5% 50V
C5208	2113743A19	100nF 16V
C5211	2113740F31	15pF 5% 50V
C5212	2113740F31	15pF 5% 50V
C5213	2113740F40	36pF 5% 50V
C5214	2113740F17	3.9pF 5% 50V
C5220	2113741F49	10nF 50V
C5221	2311049J25	TANT CP 10uF 10% 16V
C5222	2113743K15	100nF 16V
C5223	2113743E20	100nF 16V
C5224	2113741F29	1.5nF 50V
C5225	2311049J11	TANT CP 4.7uF 10% 16V
C5226	2113743K07 2113743K15	47nF 16V (12.5kHz) 100nF 16V (20/25kHz)
C5227	2311049J11	TANT CP 4.7uF 10% 16V
C5228	2113743K15	100nF 16V
C5229	2113741F41 2113741F25	4.7nF 50V (12.5kHz) 1nF (20/25kHz)
C5230	2113741F49	10nF 50V
C5231	2311049A07	TANT CP 1uF 10% 16V
C5232	2113740F51	100pF 5% 50V
C5233	2113740F51	100pF 5% 50V
C5234	2113743K15	100nF 16V
C5235	2113740F51	100pF 5% 50V
C5236	2113740F51	100pF 5% 50V
C5237	2113743K15	100nF 16V
C5238	2113743K15	100nF 16V Y5V

Circuit Ref	Motorola Part No.	Description
C5239	2113740F44	51pF 5% 50V
D5201	4880154K03	DUAL SCHOTTKY SOT23
FL5201	9180098D04 9180098D06	FILTER CER 4-EL 455kHz (12.5kHz) FILTER CER 4-EL 455kHz (20/25kHz)
FL5202	9180097D04 9180097D06	FILTER CER 6-EL 455kHz (12.5kHz) FILTER CER 6-EL 455kHz (20/25kHz)
L5201	2462587N69	CHIP IND 1200 NH
L5203	2483411T74	Inductor Chip Shielded
L5211	2483411T74	Inductor Chip Shielded
Q5201	4882022N70	Transistor NPN
R5201	0662057A73	10k 1/16W 5%
R5202	0662057A85	33k 1/16W 5%
R5203	0662057A69	6k8 1/16W 5%
R5204	0662057A25	100 1/16W 5%
R5205	0662057A56	2k 1/16W 5%
R5207	0662057B47	0 1/16W
R5211	0662057A47	820 1/16W 5%
R5212	0662057A67	5k6 1/16W 5%
R5216	0662057A73 0662057A69	10k 1/16W 5% (12.5kHz) 4k7 1/16W 5% (20/25kHz)
R5221	0662057B02 0662057B05	150k 1/16W (12.5kHz) 200k 1/16W (20/25kHz)
R5222	0662057A93	68k 1/16W 5%
R5223	0662057A69 0662057A63	6k8 1/16W 5% (12.5kHz) 3k9 1/16W 5% (20/25kHz)
R5224	0662057A76	13k 1/16W 5%
R5225	0662057A25 0662057A61	100 1/16W 5% (12.5kHz) 3k3 1/16W 5% (20/25kHz)
U5201	5180207R01	IF IC
Y5201	9102651Y01 9102652Y01	XTAL FLTR 45.1MHz 12.5kHz 80dB XTAL FLTR 45.1MHz 20/25kHz 80dB

Circuit Ref	Motorola Part No.	Description
Y5202	9102651Y02 9102652Y02	XTAL FLTR 45.1MHz 12.5kHz 60dB XTAL FLTR 45.1MHz 20/25kHz 60dB
Y5211	4802653Y01	XTAL OSC 44.645MHz

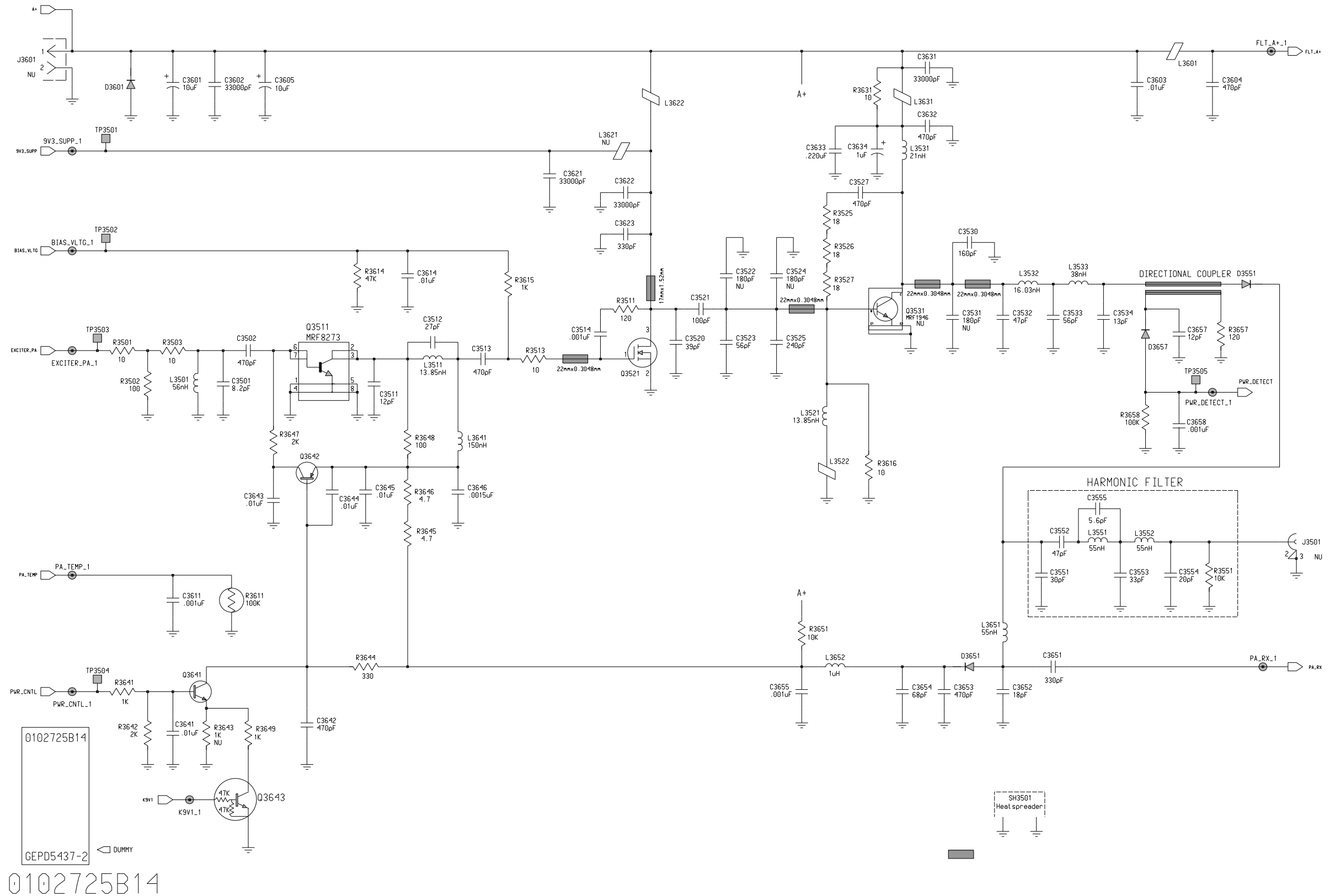


VHF (136-174MHz) Power Control Schematic Diagram

**Power Control
Parts List**

Circuit Ref	Motorola Part No.	Description
C0701	2113740F51	100pF 5% 50V
C0702	2113740F51	100pF 5% 50V
C0703	2113743E20	100nF 16V
C0711	2113741A59	39000pF
C0712	2113740F42	43pF 5% 50V
C0713	2113740F51	100pF 5% 50V
C0714	2113743A19	100nF 16V
C0716	2113741F37	3.3nF 50V
C0721	2113740F51	100pF 5% 50V
C0722	2113740F51	100pF 5% 50V
C0723	2113740F51	100pF 5% 50V
C0731	2113743E20	100nF 16V
C0732	2113740F51	100pF 5% 50V
C0733	2113743A23	220nF 16V
C0741	2113740F51	100pF 5% 50V
C0742	2113743E20	100nF 16V
D0721	4813833C02	DIODE DUAL SOT MMBD6100
D0731	4813833C02	DIODE DUAL SOT MMBD6100
D0732	4813833C02	DIODE DUAL SOT MMBD6100
Q0711	4813824A10	NPN 40V .2A B=50-150
Q0731	4880048M01	NPN DIG 47k/47k
Q0741	4880048M01	NPN DIG 47k/47k
Q0742	4805128M27	PNP SOT89 BSR33
R0701	0662057A97	100k 1/16W
R0702	0662057A97	100k 1/16W
R0703	0662057A61	3k3 1/16W 5%
R0704	0662057A93	68k 1/16W 5%
R0711	0662057A81	22k 1/16W 5%
R0712	0662057A37	330 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0713	0662057A61	3k3 1/16W 5%
R0714	0662057A81	22k 1/16W 5%
R0715	0662057A81	22k 1/16W 5%
R0716	0662057B16	560k 1/16W 5%
R0717	0662057A85	33k 1/16W 5%
R0718	0662057A93	68k 1/16W 5%
R0719	0662057A93	68k 1/16W 5%
R0721	0662057A69	6k8 1/16W 5%
R0722	0662057A81	22k 1/16W 5%
R0723	0662057A89	47k 1/16W 5%
R0724	0662057A73	10k 1/16W 5%
R0725	0662057A73	10k 1/16W 5%
R0731	0662057A31	22k 1/16W 5%
R0732	0662057A65	4k7 1/16W 5%
R0733	0662057A89	47k 1/16W 5%
R0734	0662057A65	4k7 1/16W 5%
R0735	0662057A89	47k 1/16W 5%
R0737	0662057B47	0 1/16W
R0741	0662057A49	1k 1/16W 5%
R0742	0662057A49	1k 1/16W 5%
U0701	5183222M49	IC QUAD OPAMP __3403_
U0731	5113811G02	IC D/A CONV & BIT 4 CHAN W/SPI



VHF (136-174MHz) Power Amplifier 5-25W Schematic Diagram

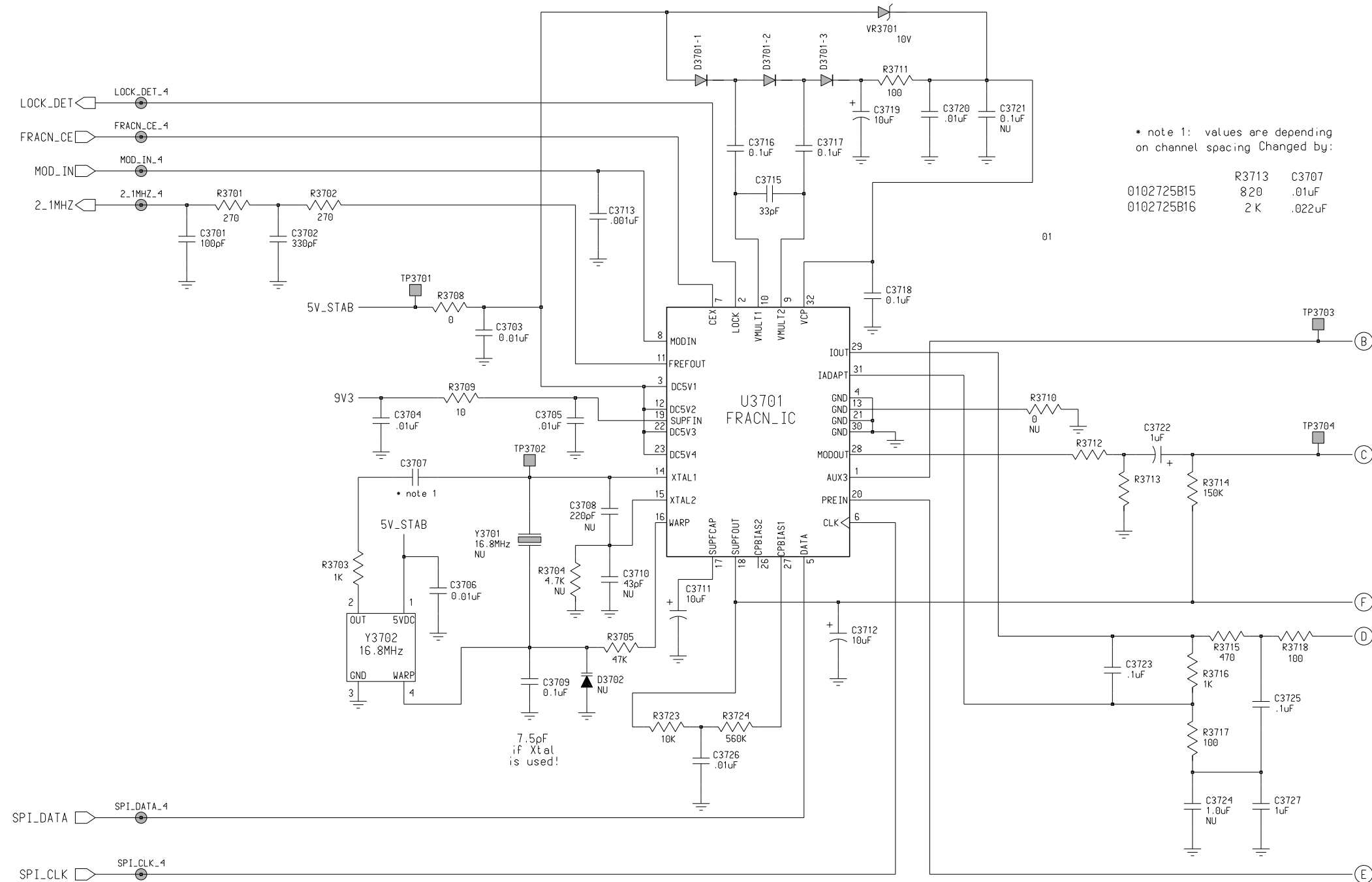
**Power Amplifier 5-25W
Parts List**

Circuit Ref	Motorola Part No.	Description
C3501	2113740F25	8.2pF 5% 50V
C3502	2113741F17	470pF 50V
C3511	2113740F29	12pF 5% 50V
C3512	2113740F37	27pF 5% 50V
C3513	2113741F17	470pF 50V
C3514	2113741F25	1nF 50V
C3520	2111078B32	39pF 5% 100V
C3521	2111078B42	100pF 5% 100V
C3523	2111078B36	56pF 5% 100V
C3525	2111078B52	240pF 5% 100V
C3527	2111078B59	470pF 5% 100V
C3530	2111078B48	160pF 5% 100V
C3532	2111078B34	47pF 5% 100V
C3533	2111078B36	56pF 5% 100V
C3534	2111078B16	13pF 5% 100V
C3551	2111078B27	30pF 5% 100V
C3552	2111078B34	47pF 5% 100V
C3553	2111078B29	33pF 5% 100V
C3554	2111078B21	20pF 5% 100V
C3555	2111078B07	5.6pF .25% 100V
C3601	2380090M24	10uF 50V 20%
C3602	2113741A57	33nF 50V
C3603	2113741F49	10nF 50V
C3604	2113741F17	470pF 50V
C3605	2311049A45	TANTCHIP 10 10 35
C3611	2113741F25	1nF 50V
C3614	2113741F49	10nF 50V
C3621	2113741A57	33nF 50V
C3622	2113741A57	33nF 50V
C3623	2113740A67	330nF 50V
C3631	2113741A57	33nF 50V

Circuit Ref	Motorola Part No.	Description
C3632	2111078B59	470pF 5% 100V
C3633	2113743A23	220nF 10% 16V
C3634	2311049A08	TANTCHIP 1 10 35 A/P
C3641	2113741F49	10nF 50V
C3642	2113741F17	470pF 5% 50V
C3643	2113741F49	10nF 50V
C3644	2113741F49	10nF 50V
C3645	2113741F49	10nF 50V
C3646	2113741F29	1.5nF 50V
C3651	2113740A67	330pF 5% 50V
C3652	2113740F33	18pF 5% 50V
C3653	2111078B59	470pF 5%100V
C3654	2113740F47	68pF 5% 50V
C3655	2113741F25	1nF 50V
C3657	2113740F29	12pF 5% 50V
C3658	2113741F25	1nF 50V
D3551	4802482J02	PIN DIODE SMD
D3601	4813832B35	24V TRANS SUP 1.5
D3651	4802482J02	PIN DIODE SMD
D3657	4880236E05	DIODE HOTCAR SOT 23
J3501	0905902V01	PWR CONNECTOR 2 PIN
J3601	0905901V02	BNC CONNECTOR
L3501	2462587T12	INDCHIP 56NH 5% LOW
L3511	2460591C23	Coil Air Wound Induc 13.85
L3521	2460591C23	Coil Air Wound Induc 13.85
L3522	2484657R01	INDUCTOR BEADCHIP
L3531	2460591X01	Coil Air Wound Sq. 21NH
L3532	2460591L29	Coil Air Wound Induc 16.03
L3533	2460591M77	Coil Air Wound Induc 38.13
L3551	2460591W04	COIL SQUARE RFD-022-16
L3552	2460591W04	COIL SQUARE RFD-022-16
L3601	2484657R01	INDUCTOR BEADCHIP
L3622	2484657R01	INDUCTOR BEADCHIP

Circuit Ref	Motorola Part No.	Description
L3631	2484657R01	INDUCTOR BEADCHIP
L3641	2462587T17	INDCHIP 150NH 5% LOW
L3651	2460591W04	COIL SQUARE RFD-022-16
L3652	2462587T30	INDCHIP 1000NH 5% LOW
Q3511	4813827A26	TSTR NPN SML SIG MRF8372 8372
Q3521	4805847W01	TSTR
Q3531	4880225C22	TSTR RF PWR
Q3641	4813824A10	XSTR NPN 40V .2A GENP B=50-150
Q3642	4813824A17	XSTR PNP40V .2A GENP B=100-300
Q3643	4880048M01	TSTR NPN DIG 47K/47K
R3501	0662057A01	10 1/16W 5%
R3502	0662057A25	100 1/16W 5%
R3503	0662057A01	10 1/16W 5%
R3511	0683962T51	120 5%
R3513	0662057A01	10 1/16W 5%
R3525	0680194M07	18 5% 1W
R3526	0680194M07	18 5% 1W
R3527	0680194M07	18 5% 1W
R3551	0662057A73	10K 1/16W 5%
R3611	0680149M02	THERM 100K @25C
R3614	0662057A89	47K 5%
R3615	0662057A49	1K 5%
R3616	0680194M01	10 5% 1W
R3631	0680194M01	10 5% 1W
R3641	0662057A49	1K 5%
R3642	0662057A56	2K 5%
R3644	0662057A37	330 5%
R3645	0662057C19	4.7 5%
R3646	0662057C19	4.7 5%
R3647	0662057A56	2K 5%
R3648	0662057A25	100 5%

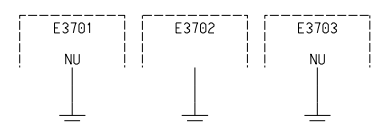
Circuit Ref	Motorola Part No.	Description
R3649	0662057A49	1000 OHMS 5%
R3651	0662057A73	10K OHMS 5%
R3657	0683962T51	120 5-1
R3658	0662057A97	100K 5%
SH3501	2602642Y01	HEATSPREADER



* note 1: values are depending on channel spacing Changed by:

0102725B15	R3713	C3707
0102725B16	820	.01uF
	2 K	.022uF

0102725B15	GEPD5438-3	12.5 kHz channel spacing
0102725B16	GEPD5439-3	20/25 kHz channel spacing

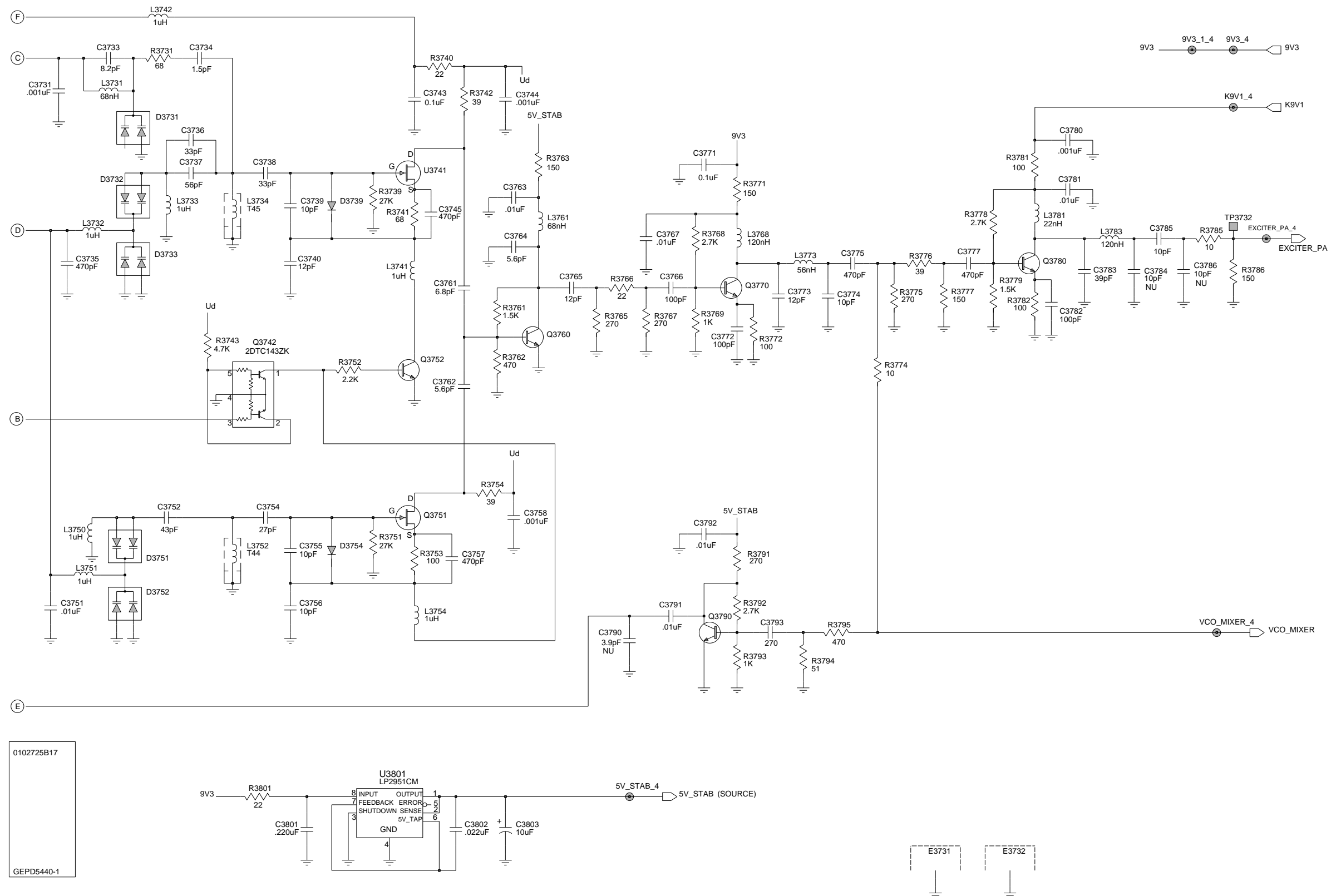


VHF (136-174MHz) Synthesizer Schematic Diagram

Synthesizer Parts List

Circuit Ref	Motorola Part No.	Description
C3701	2113740F51	100pF 5% 50V
C3702	2113741F13	330pF 50V
C3703	2113743E20	100nF
C3704	2113741F49	10nF 50V
C3705	2113741F49	10nF 50V
C3706	2113743E20	100nF
C3707	2113741F49	10nF 50V (12.5kHz)
C3707	2113743E07	22nF 50V (20/25kHz)
C3709	2113743E20	100nF
C3711	2311049A63	TANT CP 10uF
C3712	2311049J26	TANT CP 10uF
C3713	2113741F25	1nF 50V
C3715	2113740F39	33pF 50V
C3716	2113743E20	100nF
C3717	2113743E20	100nF
C3718	2113743E20	100nF
C3719	2311049A19	TANT CP 10uF 10% 25V
C3720	2113741F49	10nF 50V
C3722	2311049A07	1uF 10% 16V
C3723	2109720D14	100nF
C3725	2109720D14	100nF
C3726	2113741F49	10nF 50V
C3727	0811051A19	1uF 5%
D3701	4802233J09	TRIPLE SOT143-RH
E3702	2605915V01	SHLD PCB MOUNT 1
R3701	0662057A35	270 1/16W 5%
R3702	0662057A35	270 1/16W 5%
R3703	0662057A49	1k 1/16W 5%
R3705	0662057A89	47k 1/16W 5%
R3708	0662057B47	0 Ohm
R3709	0662057A01	10 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R3711	0662057A25	100 1/16W 5%
R3712	0662057A59	2k7 1/16W 5%
R3713	0662057A47	820 1/16W 5%
R3714	0662057B02	150k 1/16W
R3715	0662057A41	470 1/16W
R3716	0662057A49	1k 1/16W
R3717	0662057A25	100 1/16W 5%
R3718	0662057A25	100 1/16W 5%
R3723	0662057A73	10k 1/16W 5%
R3724	0662057B16	560k 1/16W 5%
U3701	5105457W72	CC CONT 5105191W59
VR3701	4813830A23	DIODE 10V 5% 20mA 350mW
Y3702	4809863M01	Crystal Quartz Ref Osc 16.8 MHz TEMPUS



VHF (136-174MHz) Voltage Controlled Oscillator Schematic Diagram

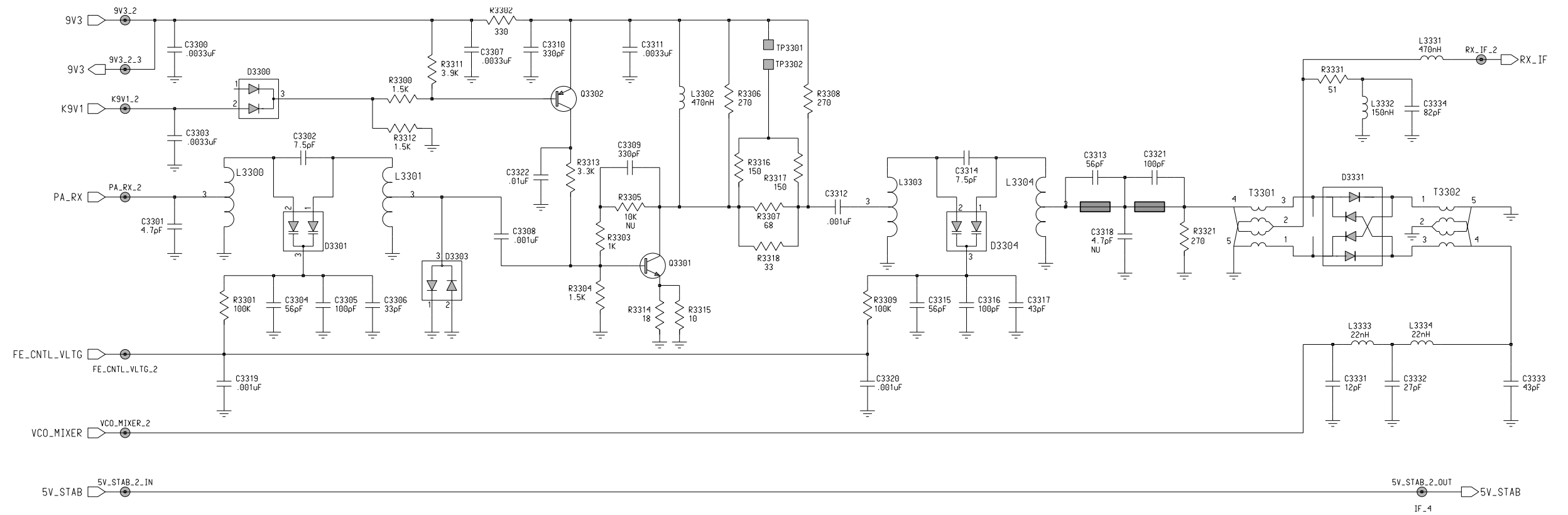
Voltage Controlled Oscillator Parts List

Circuit Ref	Motorola Part No.	Description
C3731	2113741F25	1nF 50V
C3733	2113740F25	8.2pF 5% 50V
C3734	2113740F07	1.5pF 5% 50V
C3735	2113741F17	470pF 50V
C3736	2113740F39	33pF 5% 50V
C3737	2113740F45	56pF 5% 50V
C3738	2113740F39	33pF 5% 50V
C3739	2113740F27	10pF 5% 50V
C3740	2113740F29	12pF 5% 50V
C3743	2113743K15	100nF 16V
C3744	2113741F25	1nF 50V
C3745	2113741F17	470pF 50V
C3751	2109720D01	LOW DIST 10nF
C3752	2113740F42	43pF 5% 50V
C3754	2113740F37	27pF 5% 50V
C3755	2113740F27	10pF 5% 50V
C3756	2113740F27	10pF 5% 50V
C3757	2113741F17	470pF 50V
C3758	2113741F25	1nF 50V
C3761	2113740F23	6.8pF 5% 50V
C3762	2113740F21	5.6pF 5% 50V
C3763	2113741F49	10nF 50V
C3764	2113740F21	5.6pF 5% 50V
C3765	2113740F29	12pF 5% 50V
C3766	2113740F51	100pF 5% 50V
C3767	2113741F49	10nF 50V X7R
C3771	2113743K15	100nF 16V
C3772	2113740F51	100pF 5% 50V
C3773	2113740F29	12pF 5% 50V
C3774	2113740F27	10pF 5% 50V
C3775	2113741F17	470pF 50V

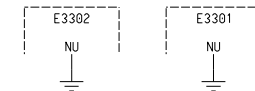
Circuit Ref	Motorola Part No.	Description
C3777	2113741F17	470pF 50V
C3780	2113741F25	1nF 50V
C3781	2113741F49	10nF 50V
C3782	2113740F51	100pF 5% 50V
C3783	2113740F41	39pF 5%
C3785	2113740F27	10pF 5%
C3791	2113741F49	10nF 50V
C3792	2113741F49	10nF 50V
C3793	2113741F49	10nF 50V
C3801	2113743A23	220nF 16V
C3802	2113743E07	22nF 16V
C3803	2311049A63	TANT CP 10uF 10% 10V
D3731	4805649Q13	VCTR 1SV228 SOT23
D3732	4805649Q13	VCTR 1SV228 SOT23
D3733	4805649Q13	VCTR 1SV228 SOT23
D3739	4880236E05	SCHOTTKY
D3751	4805649Q13	VCTR 1SV228 SOT23
D3752	4805649Q13	VCTR 1SV228 SOT23
D3754	4880236E05	SCHOTTKY
E3732	2605915V01	SHLD PCB MOUNT
L3731	2462587T13	COIL CHIP 68nH
L3732	2462587T30	COIL CHIP 1uH
L3733	2462587T30	COIL CHIP 1uH
L3734	0105950T45	HELICAL MOLDED FIN .175
L3741	2462587T30	COIL CHIP 1uH
L3742	2462587T30	COIL CHIP 1uH
L3750	2462587T30	COIL CHIP 1uH
L3751	2462587T30	COIL CHIP 1uH
L3752	0105950T44	HELICAL MOLDED FIN .175
L3754	2462587T30	COIL CHIP 1uH
L3761	2462587T13	COIL CHIP 68nH
L3768	2462587T16	COIL CHIP 120nH
L3773	2462587T12	COIL CHIP 56nH

Circuit Ref	Motorola Part No.	Description
L3781	2462587T38	COIL CHIP 22nH
L3783	2462587T16	COIL CHIP 120nH
Q3742	4805921T09	XSTR DUAL ROHM FMG8
Q3751	4813823A05	N-CH RF JFET MMBU310LT1
Q3752	4813824A10	NPN 40V .2A
Q3760	4813827A07	NPN SML SIG MMBR9
Q3770	4813827A07	NPN SML SIG MMBR9
Q3780	4813827A07	NPN SML SIG MMBR9
Q3790	4813827A07	NPN SML SIG MMBR9
R3731	0662057A21	68 1/16W 5%
R3739	0662057A83	27k 1/16W 5%
R3740	0662057A09	22 1/16W 5%
R3741	0662057A21	68.5 1/16W 5%
R3742	0662057A15	39 1/16W 5%
R3743	0662057A65	4k7 1/16W 5%
R3751	0662057A83	27k 1/16W 5%
R3752	0662057A57	2k2 1/16W 5%
R3753	0662057A25	100 1/16W 5%
R3754	0662057A15	39 1/16W 5%
R3761	0662057A53	1k5 1/16W 5%
R3762	0662057A41	470 1/16W 5%
R3763	0662057A29	150 1/16W 5%
R3765	0662057A35	270 1/16W 5%
R3766	0662057A09	22 1/16W 5%
R3767	0662057A35	270 1/16W 5%
R3768	0662057A59	2k7 1/16W 5%
R3769	0662057A49	1k 1/16W 5%
R3771	0662057A29	150 1/16W 5%
R3772	0662057A25	100 1/16W 5%
R3774	0662057A01	10 1/16W 5%
R3775	0662057A35	270 1/16W 5%
R3776	0662057A15	39 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R3777	0662057A29	150 1/16W 5%
R3778	0662057A59	2k7 1/16W 5%
R3779	0662057A53	1.5k 1/16W 5%
R3781	0662057A25	100 1/16W 5%
R3782	0662057A25	100 1/16W 5%
R3785	0662057A01	10 1/16W 5%
R3786	0662057A29	150 1/16W 5%
R3791	0662057A35	270 1/16W 5%
R3792	0662057A59	2k7 1/16W 5%
R3793	0662057A49	1k 1/16W 5%
R3794	0662057A18	51 1/16W 5%
R3795	0662057A41	470 1/16W 5%
R3801	0662057A09	22 1/16W 5%
U3741	4813823A05	N-CH RF JFET MMBU310LT1
U3801	5105469E65	VLTG REGLTR LP2951C



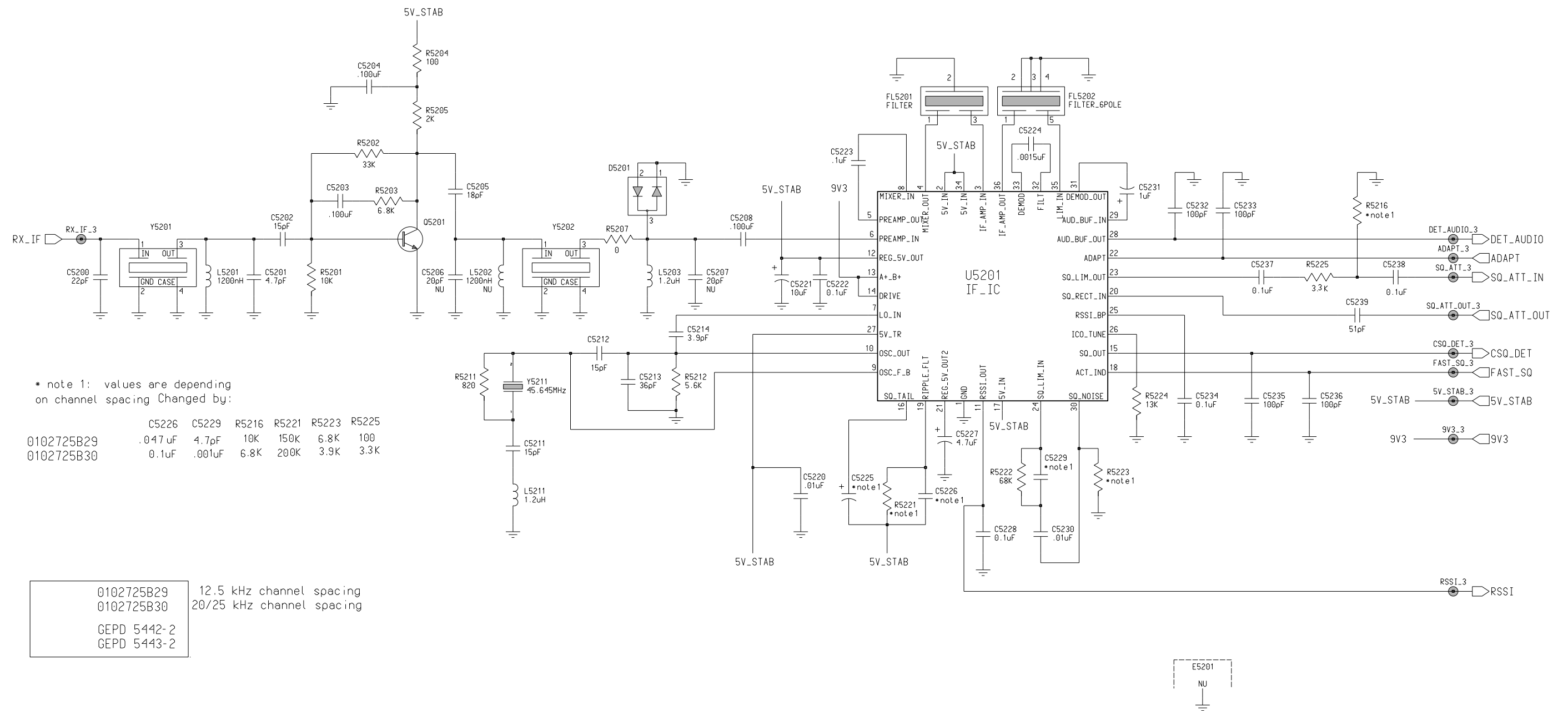
0102725B18
 GE PD5441-1 DUMMY
 0102725B18



RX-FE Parts List

Circuit Ref	Motorola Part No.	Description
C3300	2113741F37	3.3nF 50V
C3301	2113740F19	4.7pF 5% 50V
C3302	2113740F24	7.5pF 5% 50V
C3303	2113741F37	3.3nF 50V
C3304	2113740F45	56pF 5% 50V
C3305	2113740F51	100pF 5% 50V
C3306	2113740F39	33pF 5% 50V
C3307	2113741F37	3.3nF 50V
C3308	2113741F25	1nF 50V
C3309	2113741F13	330pF 50V
C3310	2113741F13	330pF 50V
C3311	2113741F37	3.3nF 50V
C3312	2113741F25	1nF 50V
C3313	2113740F45	56pF 5% 50V
C3314	2113740F24	7.5pF 5% 50V
C3315	2113740F45	56pF 5% 50V
C3316	2113740F51	100pF 5% 50V
C3317	2113740F42	43pF 5% 50V
C3319	2113741F25	1nF 50V
C3320	2113741F25	1nF 50V
C3321	2113741F51	100pF 5% 50V
C3322	2113741F49	10nF 50V
C3331	2113740F29	12pF 5% 50V
C3332	2113740F37	27pF 5% 50V
C3333	2113740F42	43pF 5% 50V
C3334	2113740F49	82pF 5% 50V
D3300	4813833C02	DUAL SOT MMBD6100
D3301	4805649Q13	VCTR 1SV228 SOT23
D3303	4880154K03	DUAL SCHOTTKY SOT23
D3304	4805649Q13	VCTR 1SV228 SOT23
D3331	4880174R01	QUAD SOIC 8 PIN

Circuit Ref	Motorola Part No.	Description
L3302	2462587T23	COIL CHIP 470nH
L3331	2462587T23	COIL CHIP 470nH
L3332	2462587T17	COIL CHIP 150nH
L3333	2462587T38	COIL CHIP 22nH 5%
L3334	2462587T38	COIL CHIP 22nH 5%
Q3301	4813827A07	NPN SML SIG MMBR9
Q3302	4813824A17	XSTR PNP40V .2A
R3300	0662057A53	1k5 1/16W 5%
R3301	0662057A97	100k 1/16W
R3302	0662057A37	330 1/16W 5%
R3303	0662057A49	1k 1/16W 5%
R3304	0662057A53	1k5 1/16W 5%
R3306	0662057A35	270 1/16W 5%
R3307	0662057A21	68 1/16W 5%
R3308	0662057A35	270 1/16W 5%
R3309	0662057A97	100k 1/16W
R3311	0662057A63	3k9 31/16W 5%
R3312	0662057A53	1k5 1/16W 5%
R3313	0662057A61	3k3 1/16W 5%
R3314	0662057A07	18 1/16W 5%
R3315	0662057A01	10 1/16W 5%
R3316	0662057A29	150 1/16W 5%
R3317	0662057A29	150 1/16W 5%
R3318	0662057A13	33 1/16W 5%
R3321	0662057A35	270 1/16W 5%
R3331	0662057A18	51 1/16W 5%
T3301	2505515V03	XFMR JEDI MIXER SMD 4:1
T3302	2505515V03	XFMR JEDI MIXER SMD 4:1



VHF (136-174MHz) RX-IF Schematic Diagram

**RX-IF
Parts List**

Circuit Ref	Motorola Part No.	Description
C5200	2113740F35	22pF 5% 50V
C5201	2113740F19	4.7pF 5% 50V
C5202	2113740F31	15pF 5% 50V
C5203	2113743A19	100nF 16V
C5204	2113743A19	100nF 16V
C5205	2113740F33	18pF 5% 50V
C5208	2113743A19	100nF 16V
C5211	2113740F31	15pF 5% 50V
C5212	2113740F31	15pF 5% 50V
C5213	2113740F40	36pF 5% 50V
C5214	2113740F17	3.9pF 5% 50V
C5220	2113741F49	10nF 50V
C5221	2311049J25	TANT CP 10uF 10% 16V
C5222	2113743K15	100nF 16V
C5223	2113743E20	100nF 16V
C5224	2113741F29	1.5nF 50V
C5225	2311049J11	TANT CP 4.7uF 10% 16V
C5226	2113743K07 2113743K15	47nF 16V (12.5kHz) 100nF 16V (20/25kHz)
C5227	2311049J11	TANT CP 4.7uF 10% 16V
C5228	2113743K15	100nF 16V
C5229	2113741F41 2113741F25	4.7nF 50V (12.5kHz) 1nF (20/25kHz)
C5230	2113741F49	10nF 50V
C5231	2311049A07	TANT CP 1uF 10% 16V
C5232	2113740F51	100pF 5% 50V
C5233	2113740F51	100pF 5% 50V
C5234	2113743K15	100nF 16V
C5235	2113740F51	100pF 5% 50V
C5236	2113740F51	100pF 5% 50V
C5237	2113743K15	100nF 16V
C5238	2113743K15	100nF 16V

Circuit Ref	Motorola Part No.	Description
C5239	2113740F44	51pF 5% 50V
D5201	4880154K03	DUAL SCHOTTKY SOT23
FL5201	9180098D04 9180098D06	FILTER CER 4-EL 455kHz (12.5kHz) FILTER CER 4-EL 455kHz (20/25kHz)
FL5202	9180097D04 9180097D06	FILTER CER 6-EL 455kHz (12.5kHz) FILTER CER 6-EL 455kHz (20/25kHz)
L5201	2462587N69	CHIP IND 1200 NH
L5203	2483411T74	Inductor Chip Shielded
L5211	2483411T74	Inductor Chip Shielded
Q5201	4882022N70	Transistor NPN
R5201	0662057A73	10k 1/16W 5%
R5202	0662057A85	33k 1/16W 5%
R5203	0662057A69	6k8 1/16W 5%
R5204	0662057A25	100 1/16W 5%
R5205	0662057A56	2k 1/16W 5%
R5207	0662057B47	0 1/16W
R5211	0662057A47	820 1/16W 5%
R5212	0662057A67	5k6 1/16W 5%
R5216	0662057A73 0662057A69	10k 1/16W 5% (12.5kHz) 4k7 1/16W 5% (20/25kHz)
R5221	0662057B02 0662057B05	150k 1/16W (12.5kHz) 200k 1/16W (20/25kHz)
R5222	0662057A93	68k 1/16W 5%
R5223	0662057A69 0662057A63	6k8 1/16W 5% (12.5kHz) 3k9 1/16W 5% (20/25kHz)
R5224	0662057A76	13k 1/16W 5%
R5225	0662057A25 0662057A61	100 1/16W 5% (12.5kHz) 3k3 1/16W 5% (20/25kHz)
U5201	5180207R01	IF IC
Y5201	9102651Y01 9102652Y01	XTAL FLTR 45.1MHz 12.5KHz 80dB XTAL FLTR 45.1MHz 20/25KHz 80dB

Circuit Ref	Motorola Part No.	Description
Y5202	9102651Y02 9102652Y02	XTAL FLTR 45.1MHz 12.5KHz 60dB XTAL FLTR 45.1MHz 20/25KHz 60dB
Y5211	4802653Y01	XTAL OSC 44.645MHz