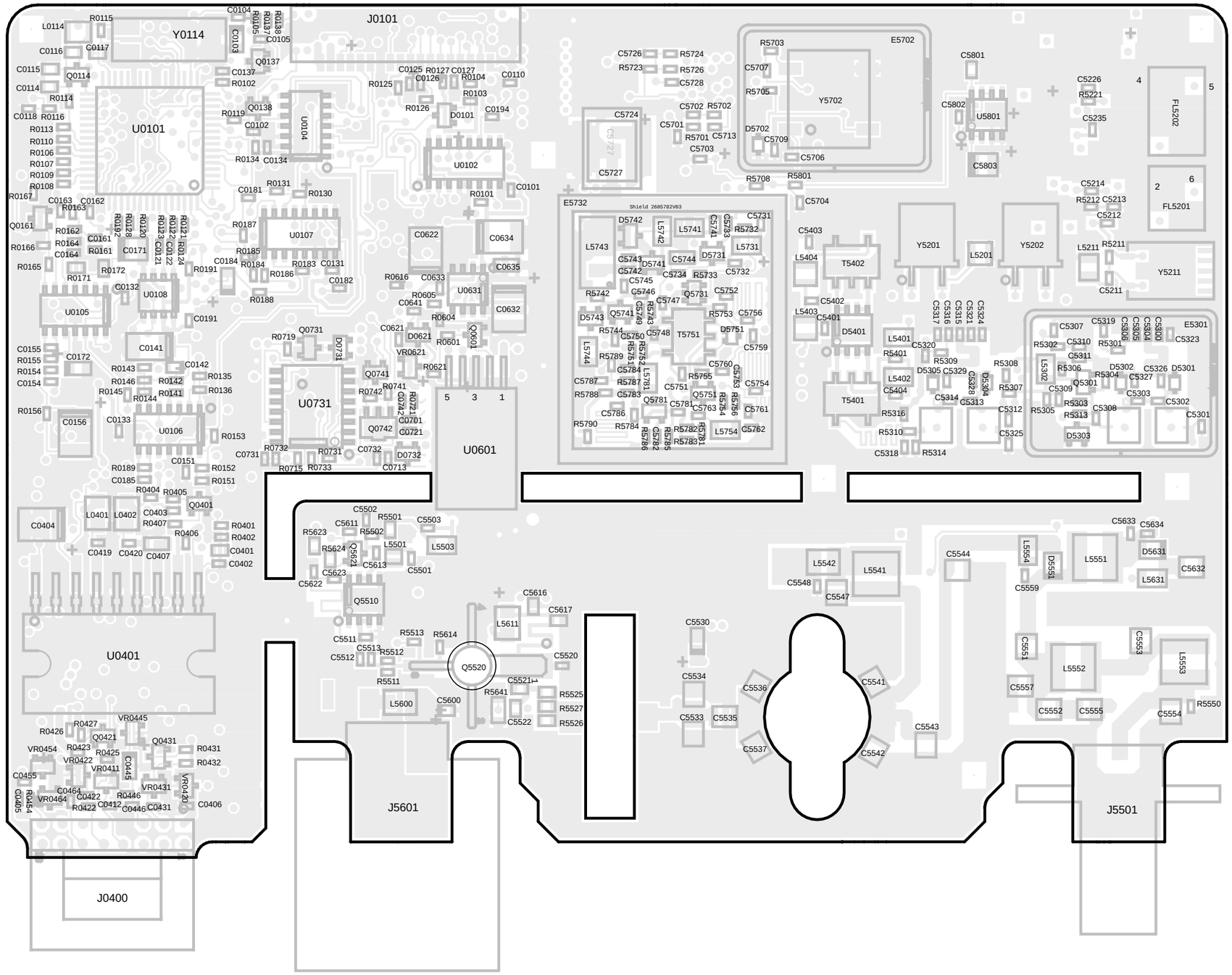
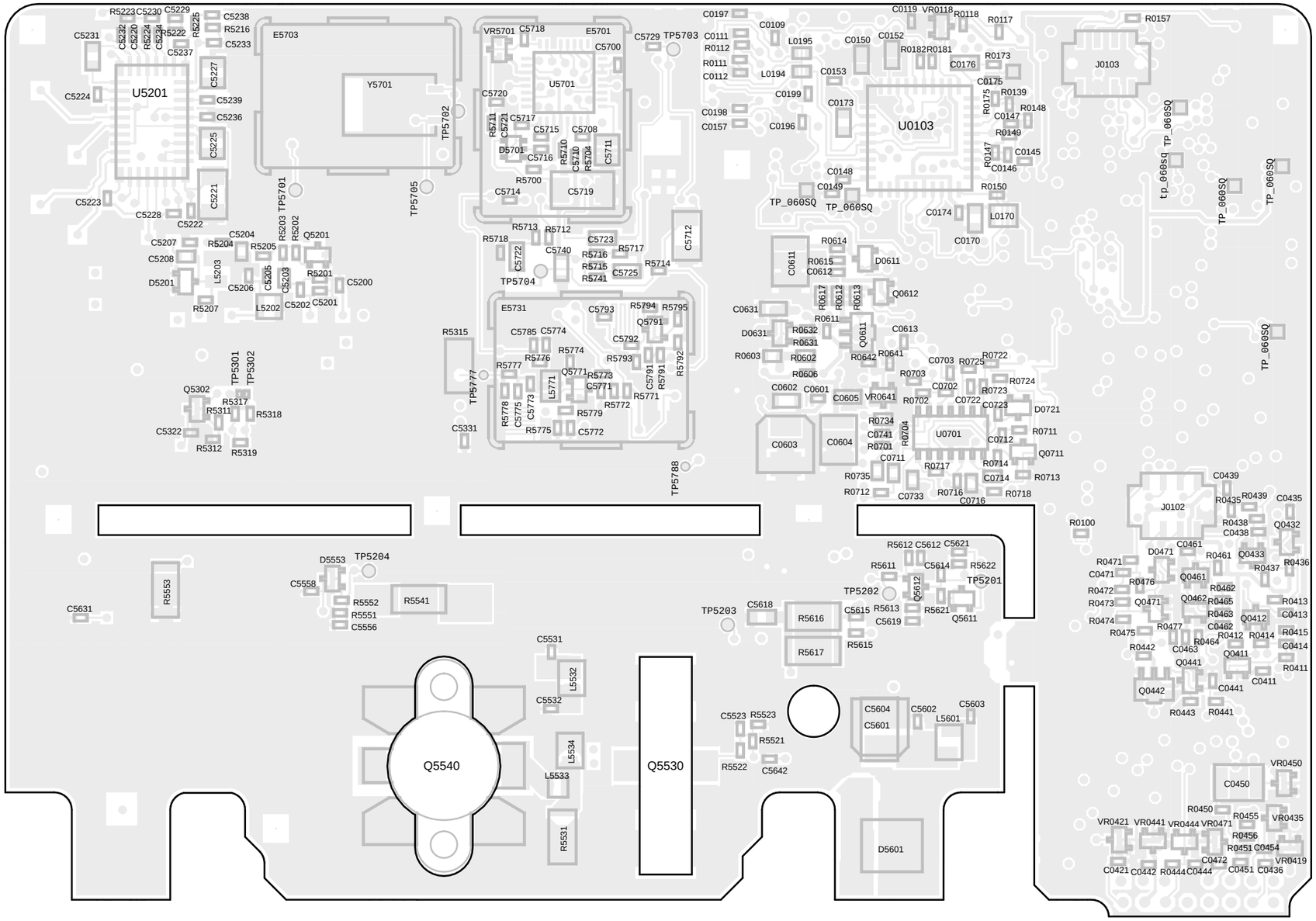
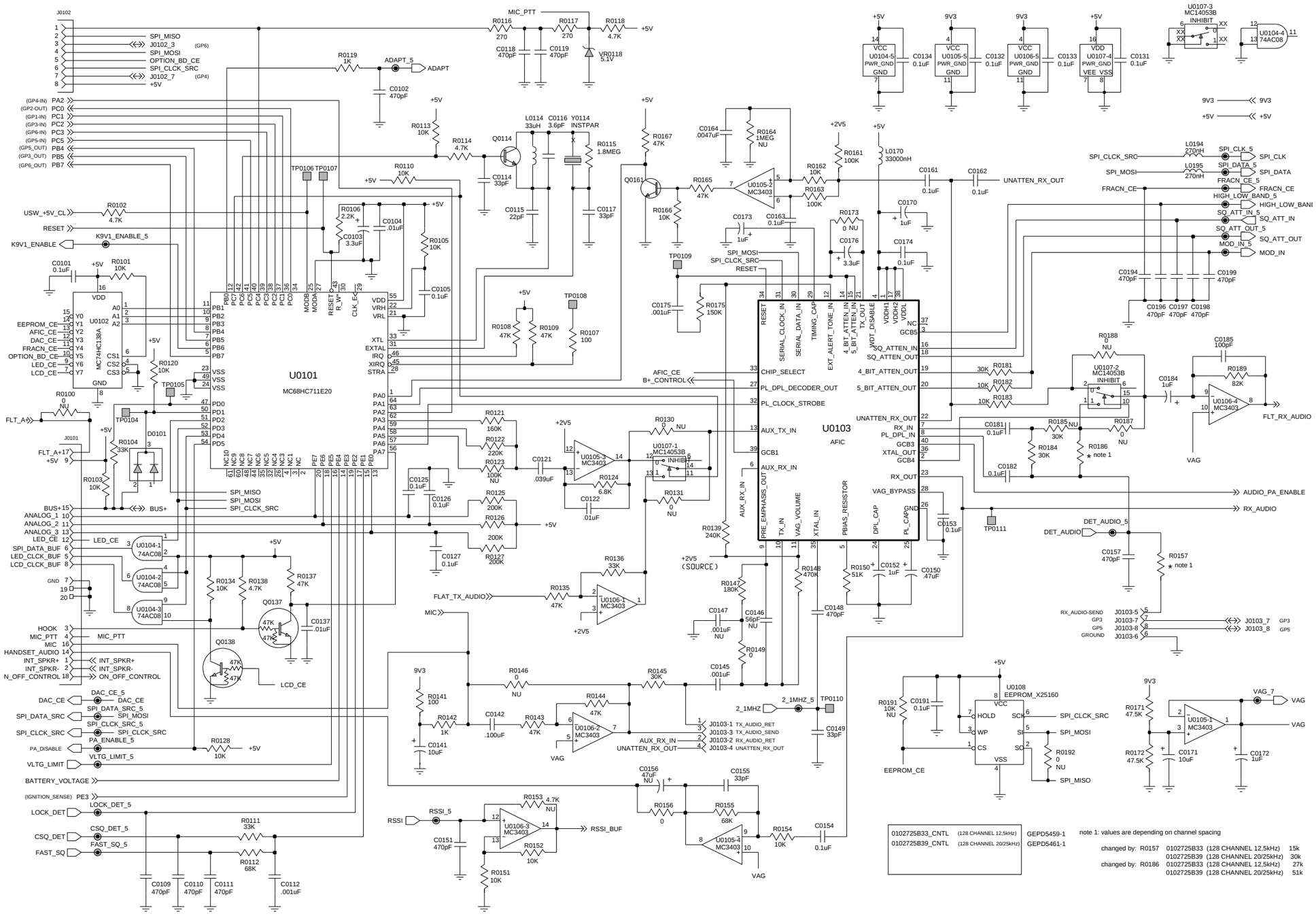
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UHF (403-470MHz) Main Board Top Side PCB No. 8402624Y07_T6



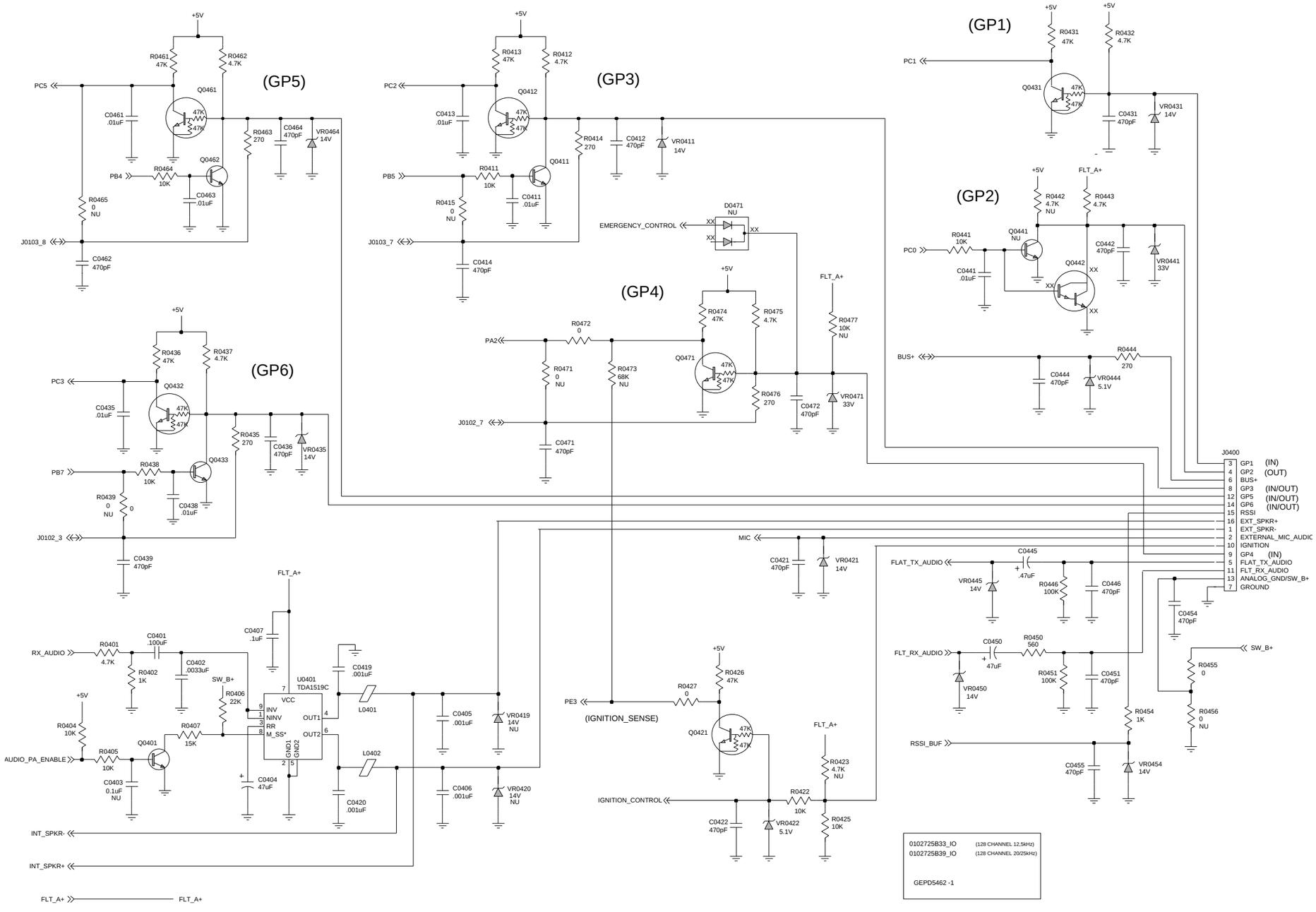
UHF (403-470MHz) Main Board Bottom Side PCB No. 8402624Y07_T6



UHF (403-470MHz) 128 channel Controller Schematic Diagram
1 of 2

128 channel Controller Parts List

Circuit Ref	Motorola Part No.	Description
C0101	2113743K15	100nF 16V
C0102	2113741F17	470pF 50V
C0103	2311049A42	TANT CP 3.3uF 10% 6V
C0104	2113741F49	10nF 50V
C0105	2113743K15	100nF 16V
C0109	2113741F17	470pF 50V
C0110	2113741F17	470pF 50V
C0111	2113741F17	470pF 50V
C0112	2113741F25	1nF 50V
C0114	2113740A41	33pF 5% 50V
C0115	2113740A37	22pF 5% 50V
C0116	2113740G16	CERAMIC CHIP 3.6 P
C0117	2113740A41	33pF 5% 50V
C0118	2113741F17	470pF 50V
C0119	2113741F17	470pF 50V
C0121	2113743K05	39nF 16V
C0122	2113741F49	10nF 50V
C0125	2113743K15	100nF 16V
C0126	2113743K15	100nF 16V
C0127	2113743K15	100nF 16V
C0131	2113743K15	100nF 16V
C0132	2113743K15	100nF 16V
C0133	2113743K15	100nF 16V
C0134	2113743K15	100nF 16V
C0137	2113741F49	10nF 50V
C0141	2311049J26	TANT CP 10uF 20% 16V
C0142	2113743A19	100nF 16V
C0145	2113741F25	1nF 50V
C0148	2113741F17	470pF 50V
C0149	2113740F39	33pF 5% 50V
C0150	2311049A05	TANT CP 470nF 10% 25V
C0151	2113741F17	470pF 50V
C0152	2311049A07	TANT CP 1uF 10% 16V
C0153	2113743K15	100nF 16V
C0154	2113743K15	100nF 16V
C0155	2113740F39	33pF 5% 50V
C0157	2113741F17	470pF 50V
C0161	2113743K15	100nF 16V
C0162	2113743K15	100nF 16V
C0163	2113743K15	100nF 16V
C0164	2113741F41	4.7nF 50V
C0170	2311049A07	TANT CP 1uF 10% 16V
C0171	2311049J23	TANT CP 10uF 10% 6V
C0172	2311049A07	TANT CP 1uF 10% 16V
C0173	2311049A07	TANT CP 1uF 10% 16V
C0174	2113743K15	100nF 16V
C0175	2113741F25	1nF 50V
C0176	2113743A23	220nF 16V
C0181	2113743K15	100nF 16V
C0182	2113743K15	100nF 16V
C0184	2311049A07	TANT CP 1uF 10% 16V
C0185	2113740F51	100pF 5% 50V
C0191	2113743K15	100nF 16V
C0194	2113741F17	470pF 50V
C0196	2113741F17	470pF 50V
C0197	2113741F17	470pF 50V
C0198	2113741F17	470pF 50V
C0199	2113741F17	470pF 50V
C0401	2113743A19	100nF 16V
C0402	2113741F37	3.3nF 50V
C0404	2311049J44	TANT CP 47uF 20% 10V
C0405	2113741F25	1nF 50V
C0406	2113741F25	1nF 50V
C0407	2109720D14	CER LOW DIST 100nF
C0411	2113741F49	10nF 50V
C0412	2113741F17	470pF 50V
C0413	2113741F49	10nF 50V
C0414	2113741F17	470pF 50V
C0419	2113741F25	1nF 50V
C0420	2113741F25	1nF 50V
C0421	2113741F17	470pF 50V
C0422	2113741F17	470pF 50V
C0431	2113741F17	470pF 50V
C0435	2113741F49	10nF 50V
C0436	2113741F17	470pF 50V
C0438	2113741F49	10nF 50V
C0439	2113741F17	470pF 50V
C0441	2113741F49	10nF 50V
C0442	2113741F17	470pF 50V
C0444	2113741F17	470pF 50V
C0445	2311049A05	TANT CP 470nF 10% 25V
C0446	2113741F17	470pF 50V
C0450	2311049J44	TANT CP 47uF 20% 10V
C0451	2113741F17	470pF 50V
C0454	2113741F17	470pF 50V
C0455	2113741F17	470pF 50V
C0461	2113741F49	10nF 50V
C0462	2113741F17	470pF 50V
C0463	2113741F49	10nF 50V
C0464	2113741F17	470pF 50V
C0471	2113741F17	470pF 50V
C0472	2113741F17	470pF 50V
D0101	4813833C02	DIODE DUAL SOT MMBD6100
J0101	0902636Y01	Connector Flex Side Entry
J0102	0904424J03	Accessory Connector
J0103	0904424J03	Accessory Connector
J0400	2804503J01	Connector Accy 16 PIN
L0114	2460578C43	INDUCTOR CHIP 33.0UH
L0170	2462587K26	CHIP IND 33000 NH
L0194	2462587Q40	COIL CHIP 270nH
L0195	2462587Q40	COIL CHIP 270nH
L0401	2484657R01	Ferrite Bead
L0402	2484657R01	Ferrite Bead
Q0114	4813824A10	NPN 40V .2A
Q0137	4880048M01	NPN DIG 47k/47k
Q0138	4880048M01	NPN DIG 47k/47k
Q0161	4813824A10	NPN 40V .2A
Q0401	4813824A10	NPN 40V .2A
Q0411	4813824A10	NPN 40V .2A
Q0412	4880048M01	NPN DIG 47k/47k
Q0421	4880048M01	NPN DIG 47k/47k
Q0431	4880048M01	NPN DIG 47k/47k
Q0432	4880048M01	NPN DIG 47k/47k
Q0433	4813824A10	NPN 40V .2A B=50-150
Q0442	4880052M01	NPN DRLNGTN MXTA
Q0461	4880048M01	NPN DIG 47k/47k
Q0462	4813824A10	NPN 40V .2A B=50-150
Q0471	4880048M01	NPN DIG 47k/47k
R0101	0662057A73	10k 1/16W 5%
R0102	0662057A65	4k7 1/16W 5%
R0103	0662057A73	10k 1/16W 5%
R0104	0662057A85	33k 1/16W 5%
R0105	0662057A73	10k 1/16W 5%
R0106	0662057A57	2k2 1/16W 5%
R0107	0662057A25	100 1/16W 5%
R0108	0662057A89	47k 1/16W 5%
R0109	0662057A89	47k 1/16W 5%
R0110	0662057A73	10k 1/16W 5%
R0111	0662057A85	33k 1/16W 5%



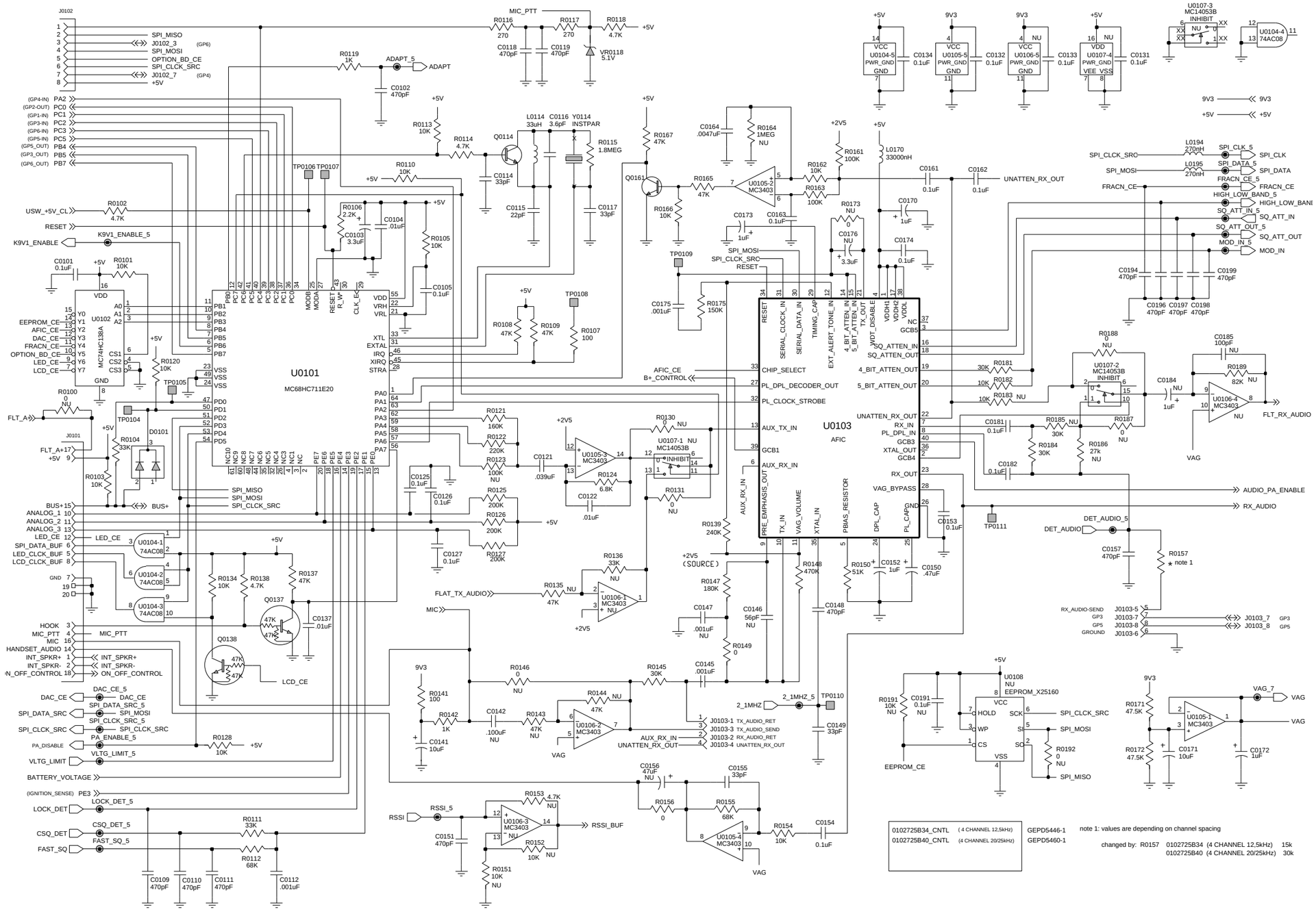
UHF (403-470MHz) 128 channel Controller_IO Schematic Diagram 2 of 2

Circuit Ref	Motorola Part No.	Description
R0112	0662057A93	68k 1/16W 5%
R0113	0662057A73	10k 1/16W 5%
R0114	0662057A65	4k7 1/16W 5%
R0115	0662057B28	1.8M 1/16W 5%
R0116	0662057A35	270 1/16W 5%
R0117	0662057A35	270 1/16W 5%
R0118	0662057A65	4k7 1/16W 5%
R0119	0662057A49	1k 1/16W 5%
R0120	0662057A73	10k 1/16W 5%
R0121	0662057B03	160k 1/16W 5%
R0122	0662057B06	220k 1/16W
R0123	0662057A97	100k 1/16W
R0124	0662057A69	6k8 1/16W 5%
R0125	0662057B05	200k 1/16W
R0126	0662057B05	200k 1/16W
R0127	0662057B05	200k 1/16W
R0128	0662057A73	10k 1/16W 5%
R0134	0662057A73	10k 1/16W 5%
R0135	0662057A89	47k 1/16W 5%
R0136	0662057A85	33k 1/16W 5%
R0137	0662057A89	47k 1/16W 5%
R0138	0662057A65	4k7 1/16W 5%
R0139	0662057B07	240k 1/16W
R0141	0662057A25	100 1/16W 5%
R0142	0662057A49	1k 1/16W 5%
R0143	0662057A89	47k 1/16W 5%
R0144	0662057A89	47k 1/16W 5%
R0145	0662057A84	30k 1/16W 5%
R0147	0662057B04	180k 1/16W 5%
R0148	0662057B14	470k 1/16W 5%
R0149	0662057B47	0 1/16W
R0150	0662057A90	51k 1/16W 5%
R0151	0662057A73	10k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0152	0662057A73	10k 1/16W 5%
R0154	0662057A73	10k 1/16W 5%
R0155	0662057A93	68k 1/16W 5%
R0156	0662057B47	0 1/16W
R0157	0662057A77	15k 1/16W 5% (12.5kHz)
R0157	0662057A84	30k 1/16W 5% (20/25kHz)
R0161	0662057A97	100k 1/16W
R0162	0662057A73	10k 1/16W 5%
R0163	0662057A97	100k 1/16W
R0165	0662057A89	47k 1/16W 5%
R0166	0662057A73	10k 1/16W 5%
R0167	0662057A89	47k 1/16W 5%
R0171	0662057R92	47.5k .1W 1%
R0172	0662057R92	47.5k .1W 1%
R0175	0662057B02	150k 1/16W
R0181	0662057A84	30k 1/16W 5%
R0182	0662057A73	10k 1/16W 5%
R0183	0662057A73	10k 1/16W 5%
R0184	0662057A84	30k 1/16W 5%
R0186	0662057A83	27k 1/16W 5% (12.5kHz)
R0186	0662057A90	51k 1/16W 5% (20/25kHz)
R0189	0662057A95	82k 1/16W 5%
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	0662057A89	47k 1/16W 5%
R0414	0662057A35	270 1/16W 5%
R0422	0662057A73	10k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0425	0662057A73	10k 1/16W 5%
R0426	0662057A89	47k 1/16W 5%
R0427	0662057B47	0 1/16W
R0431	0662057A89	47k 1/16W 5%
R0432	0662057A65	4k7 1/16W 5%
R0435	0662057A35	270 1/16W 5%
R0436	0662057A89	47k 1/16W 5%
R0437	0662057A65	4k7 1/16W 5%
R0438	0662057A73	10k 1/16W 5%
R0441	0662057A73	10k 1/16W 5%
R0443	0662057A65	4k7 1/16W 5%
R0444	0662057A35	270 1/16W 5%
R0446	0662057A97	100k 1/16W
R0450	0662057A43	560 1/16W 5%
R0451	0662057A97	100k 1/16W
R0454	0662057A49	1k 1/16W 5%
R0455	0662057A09	22 1/16W 5%
R0461	0662057A89	47k 1/16W 5%
R0462	0662057A65	4k7 1/16W 5%
R0463	0662057A35	270 1/16W 5%
R0464	0662057A73	10k 1/16W 5%
R0472	0662057B47	0 1/16W
R0474	0662057A89	47k 1/16W 5%
R0475	0662057A65	4k7 1/16W 5%
R0476	0662057A35	270 1/16W 5%
U0101	5102226J16	68HC711E20 64PQFP OTP
U0102	5113805A30	10F8 DCDR/REMUX 74HC138
U0103	5105165R77	CHIP CAR 40 PIN W/63G7
U0104	5105492X36	74AC08 4 AND GATES
U0105	5183222M49	QUAD OPAMP __3403_
U0106	5183222M49	QUAD OPAMP __3403_
U0107	5113806A20	MUX/DEMUX,TRIPLE 2-

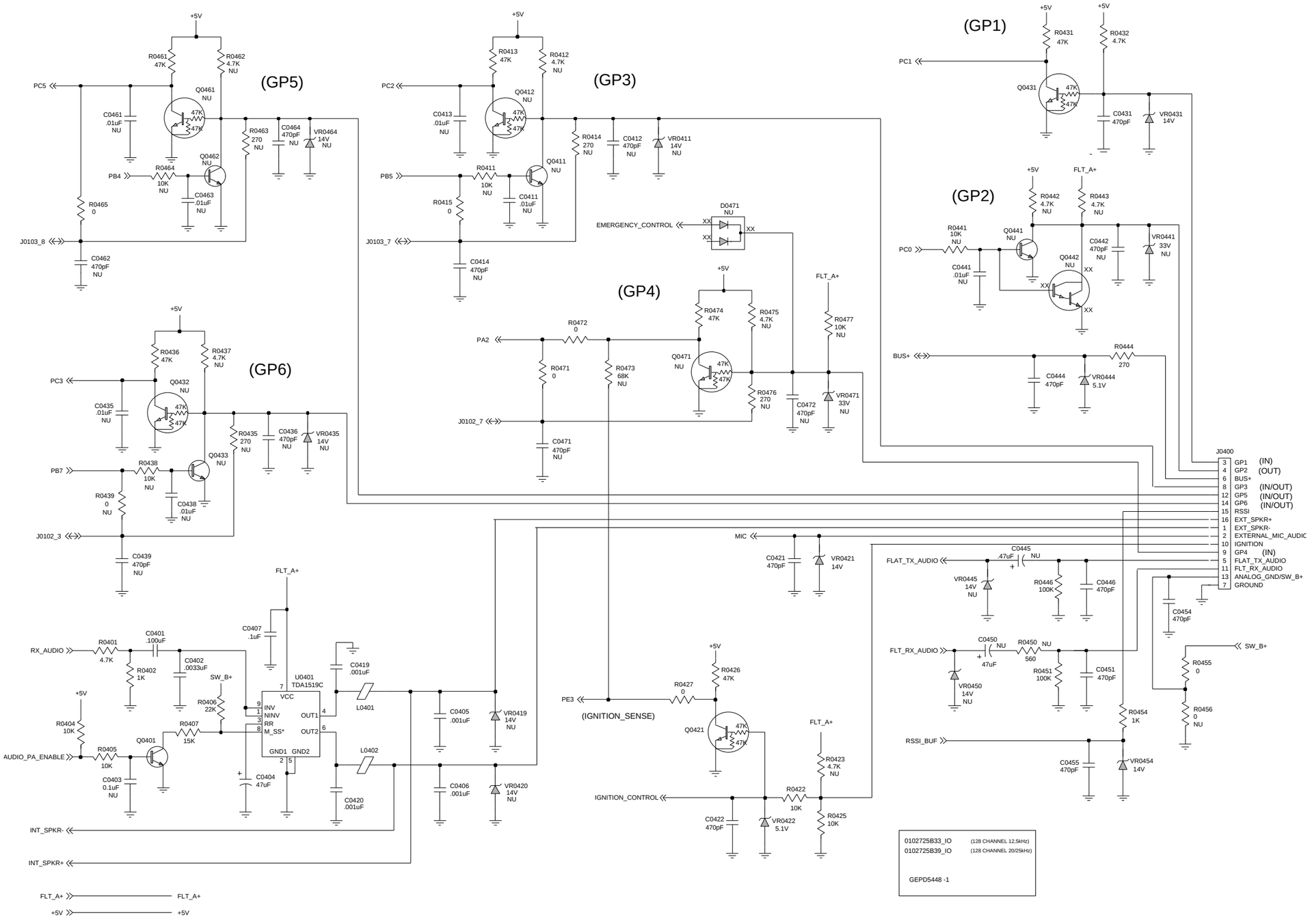
Circuit Ref	Motorola Part No.	Description
U0108	5105462G78	EEPROM !&K SPEI CMOS
U0401	5109699X01	AUDIO PA TDA1915C
VR0118	4813830A14	5.1V 5% 225mW
VR0411	4813830A27	14V 5% 225mW
VR0421	4813830A27	14V 5% 225mW
VR0422	4813830A14	5.1V 5% 225mW
VR0431	4813830A27	14V 5% 225mW
VR0435	4813830A27	14V 5% 225mW
VR0441	4813830A40	SOC23 AUTO SDN
VR0444	4813830A14	5.1V 5% 225mW
VR0445	4813830A27	14V 5% 225mW
VR0450	4813830A27	14V 5% 225mW
VR0454	4813830A27	14V 5% 225mW
VR0464	4813830A27	14V 5% 225mW
VR0471	4813830A40	SOC23 AUTO SDN
Y0114	4880113R01	CRYSTAL 7.9488



UHF (403-470MHz) 4 channel Controller Schematic Diagram
1 of 2

128 channel Controller Parts List

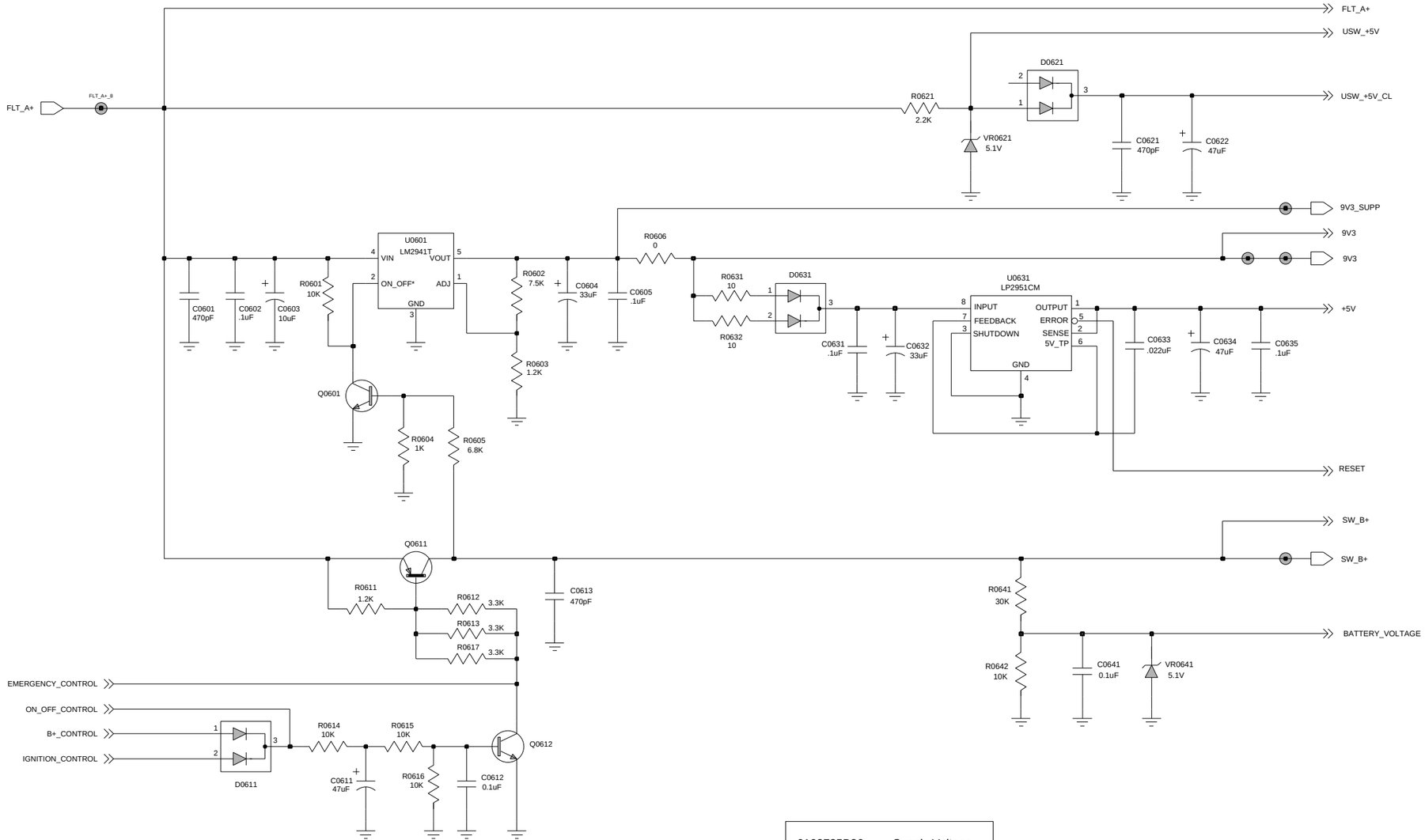
Circuit Ref	Motorola Part No.	Description
C0101	2113743K15	100nF 16V
C0102	2113741F17	470pF 50V
C0103	2311049A42	TANT CP 3.3uF 10% 6V
C0104	2113741F49	10nF 50V
C0105	2113743K15	100nF 16V
C0109	2113741F17	470pF 50V
C0110	2113741F17	470pF 50V
C0111	2113741F17	470pF 50V
C0112	2113741F25	1nF 50V
C0114	2113740A41	33pF 5% 50V
C0115	2113740A37	22pF 5% 50V
C0116	2113740G16	CERAMIC CHIP 3.6 P
C0117	2113740A41	33pF 5% 50V
C0118	2113741F17	470pF 50V
C0119	2113741F17	470pF 50V
C0121	2113743K05	39nF 16V
C0122	2113741F49	10nF 50V
C0125	2113743K15	100nF 16V
C0126	2113743K15	100nF 16V
C0127	2113743K15	100nF 16V
C0131	2113743K15	100nF 16V
C0132	2113743K15	100nF 16V
C0133	2113743K15	100nF 16V
C0134	2113743K15	100nF 16V
C0137	2113741F49	10nF 50V
C0141	2311049J26	TANT CP 10uF 20% 16V
C0145	2113741F25	1nF 50V
C0148	2113741F17	470pF 50V
C0149	2113740F39	33pF 5% 50V
C0150	2311049A05	TANT CP 470nF 10% 25V
C0151	2113741F17	470pF 50V
C0152	2311049A07	TANT CP 1uF 10% 16V
C0153	2113743K15	100nF 16V
C0154	2113743K15	100nF 16V
C0155	2113740F39	33pF 5% 50V
C0157	2113741F17	470pF 50V
C0161	2113743K15	100nF 16V
C0162	2113743K15	100nF 16V
C0163	2113743K15	100nF 16V
C0164	2113741F41	4.7nF 50V
C0170	2311049A07	TANT CP 1uF 10% 16V
C0171	2311049J23	TANT CP 10uF 10% 6V
C0172	2311049A07	TANT CP 1uF 10% 16V
C0173	2311049A07	TANT CP 1uF 10% 16V
C0174	2113743K15	100nF 16V
C0175	2113741F25	1nF 50V
C0181	2113743K15	100nF 16V
C0182	2113743K15	100nF 16V
C0194	2113741F17	470pF 50V
C0196	2113741F17	470pF 50V
C0197	2113741F17	470pF 50V
C0198	2113741F17	470pF 50V
C0199	2113741F17	470pF 50V
C0401	2113743A19	100nF 16V
C0402	2113741F37	3.3nF 50V
C0404	2311049J44	TANT CP 47uF 20% 10V
C0405	2113741F25	1nF 50V
C0406	2113741F25	1nF 50V
C0407	2109720D14	CER LOW DIST 100nF
C0419	2113741F25	1nF 50V
C0420	2113741F25	1nF 50V
C0421	2113741F17	470pF 50V
C0422	2113741F17	470pF 50V
C0431	2113741F17	470pF 50V
C0444	2113741F17	470pF 50V
D0101	4813833C02	DUAL SOT MMBD6100
J0101	0902636Y01	Connector Flex Side Entry
J0102	0904424J03	Accessory Connector
J0103	0904424J03	Accessory Connector
J0400	2804503J01	Connector Accy 16 PIN
L0114	2460578C43	INDUCTOR CHIP 33.0UH 1
L0170	2462587K26	CHIP IND 33000 NH
L0194	2462587Q40	COIL CHIP 270nH
L0195	2462587Q40	COIL CHIP 270nH
L0401	2484657R01	Ferrite Bead
L0402	2484657R01	Ferrite Bead
Q0114	4813824A10	NPN 40V
Q0137	4880048M01	NPN DIG 47k/47k
Q0138	4880048M01	NPN DIG 47k/47k
Q0161	4813824A10	NPN 40V
Q0401	4813824A10	NPN 40V
Q0421	4880048M01	NPN DIG 47k/47k
Q0431	4880048M01	NPN DIG 47k/47k
R0101	0662057A73	10k 1/16W 5%
R0102	0662057A65	4k7 1/16W 5%
R0103	0662057A73	10k 1/16W 5%
R0104	0662057A85	33k 1/16W 5%
R0105	0662057A73	10k 1/16W 5%
R0106	0662057A57	2k2 1/16W 5%
R0107	0662057A25	100 1/16W 5%
R0108	0662057A89	47k 1/16W 5%
R0109	0662057A89	47k 1/16W 5%
R0110	0662057A73	10k 1/16W 5%
R0111	0662057A85	33k 1/16W 5%
R0112	0662057A93	68k 1/16W 5%
R0113	0662057A73	10k 1/16W 5%
R0114	0662057A65	4k7 1/16W 5%
R0115	0662057B28	1.8M 1/16W 5%
R0116	0662057A35	270 1/16W 5%
R0117	0662057A35	270 1/16W 5%
R0118	0662057A65	4k7 1/16W 5%
R0119	0662057A49	1k 1/16W 5%
R0120	0662057A73	10k 1/16W 5%
R0121	0662057B03	160k 1/16W 5%
R0122	0662057B06	220k 1/16W
R0123	0662057A97	100k 1/16W
R0124	0662057A69	6k8 1/16W 5%
R0125	0662057B05	200k 1/16W
R0126	0662057B05	200k 1/16W
R0127	0662057B05	200k 1/16W
R0128	0662057A73	10k 1/16W 5%
R0130	0662057B47	0 1/16W
R0134	0662057A73	10k 1/16W 5%
R0137	0662057A89	47k 1/16W 5%
R0138	0662057A65	4k7 1/16W 5%
R0139	0662057B07	240k 1/16W
R0141	0662057A25	100 1/16W 5%
R0142	0662057A49	1k 1/16W 5%
R0145	0662057A84	30k 1/16W 5%
R0146	0662057B47	0 1/16W
R0147	0662057B04	180k 1/16W 5%
R0148	0662057B14	470k 1/16W 5%
R0150	0662057A90	51k 1/16W 5%
R0153	0662057A65	4k7 1/16W 5%
R0154	0662057A73	10k 1/16W 5%
R0155	0662057A93	68k 1/16W 5%
R0156	0662057B47	0 1/16W
R0157	0662057A77	15k 1/16W 5% (12.5kHz)
R0157	0662057A84	30k 1/16W 5% (20/25kHz)
R0161	0662057A97	100k 1/16W



UHF (403-470MHz) 4 channel Controller_IO Schematic Diagram 2 of 2

Circuit Ref	Motorola Part No.	Description
R0162	0662057A73	10k 1/16W 5%
R0163	0662057A97	100k 1/16W
R0165	0662057A89	47k 1/16W 5%
R0166	0662057A73	10k 1/16W 5%
R0167	0662057A89	47k 1/16W 5%
R0171	0662057R92	47.5k .1W 1%
R0172	0662057R92	47.5k .1W 1%
R0175	0662057B02	150k 1/16W
R0181	0662057A84	30k 1/16W 5%
R0182	0662057A73	10k 1/16W 5%
R0183	0662057A73	10k 1/16W 5%
R0184	0662057A84	30k 1/16W 5%
R0186		Not used
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%
R0413	0662057A89	47k 1/16W 5%
R0421	0662057B47	0 1/16W
R0422	0662057A73	10k 1/16W 5%
R0425	0662057A73	10k 1/16W 5%
R0426	0662057A89	47k 1/16W 5%
R0427	0662057B47	0 1/16W
R0431	0662057A89	47k 1/16W 5%
R0432	0662057A65	4k7 1/16W 5%
R0436	0662057A89	47k 1/16W 5%
R0444	0662057A35	270 1/16W 5%
R0454	0662057A49	1k 1/16W 5%
R0461	0662057A89	47k 1/16W 5%
R0471	0662057B47	0 1/16W
R0472	0662057B47	0 1/16W

Circuit Ref	Motorola Part No.	Description
R0474	0662057A89	47k 1/16W 5%
U0101	5102226J16	68HC711E20 64PQFP OTP
U0102	5113805A30	IC 10F8 DCDR/REMUX 74HC138
U0103	5105165R77	CHIP CAR 40 PIN W/63G7
U0104	5105492X36	74AC08 4 AND GATES
U0105	5183222M49	IC QUAD OPAMP __3403_
U0401	5109699X01	AUDIO PA TDA1915C
VR0118	4813830A14	DIODE 5.1V 5% 225mW
VR0421	4813830A27	DIODE 14V 5% 225mW
VR0422	4813830A14	DIODE 5.1V 5% 225mW
VR0431	4813830A27	DIODE 14V 5% 225mW
VR0444	4813830A14	DIODE 5.1V 5% 225mW
VR0454	4813830A27	DIODE 14V 5% 225mW
Y0114	4880113R01	CRYSTAL 7.9488

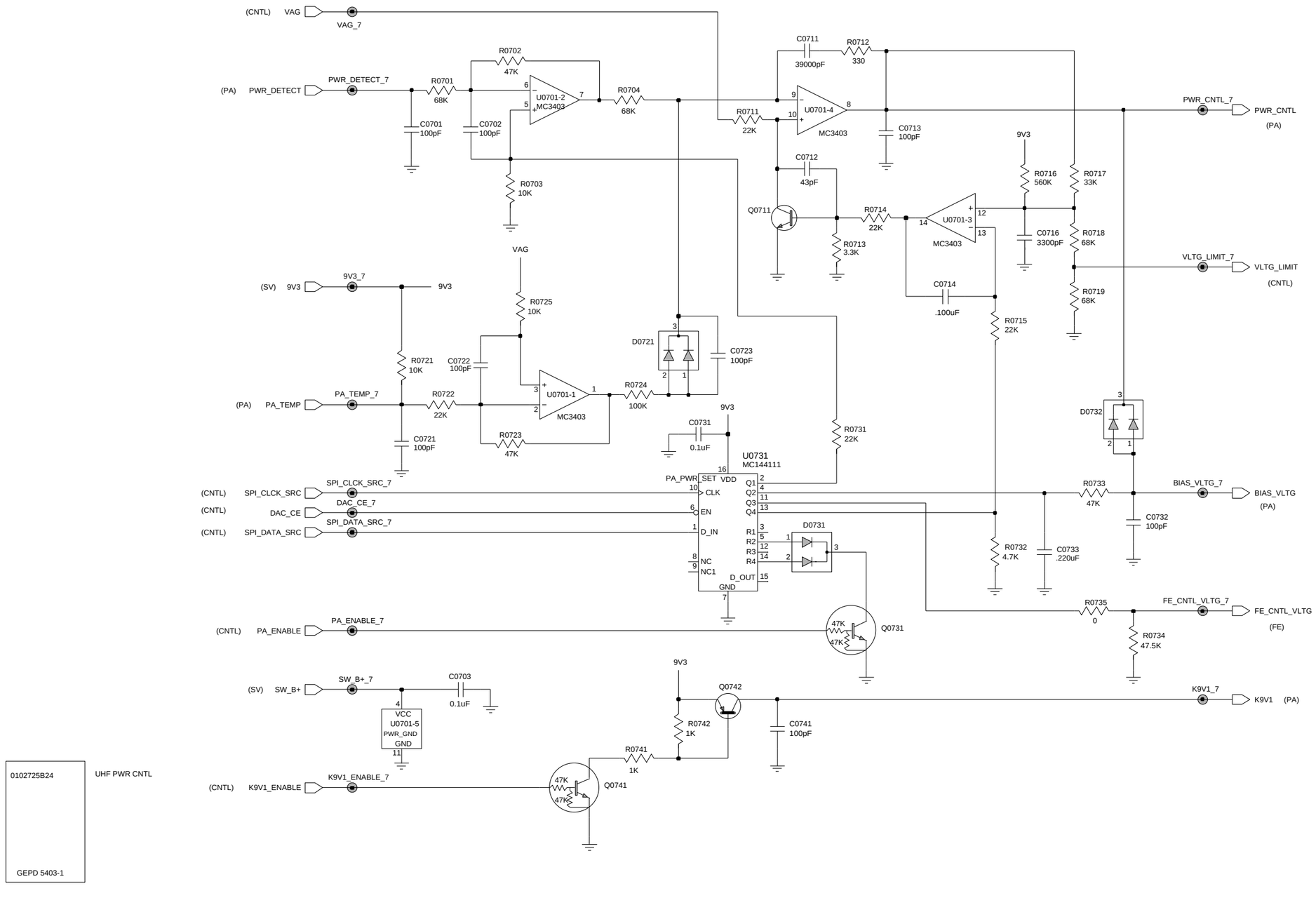


0102725B36	Supply Voltage
GEPD5449-1	

UHF (403-470MHz) Supply Voltage Schematic Diagram

Supply Voltage Parts List

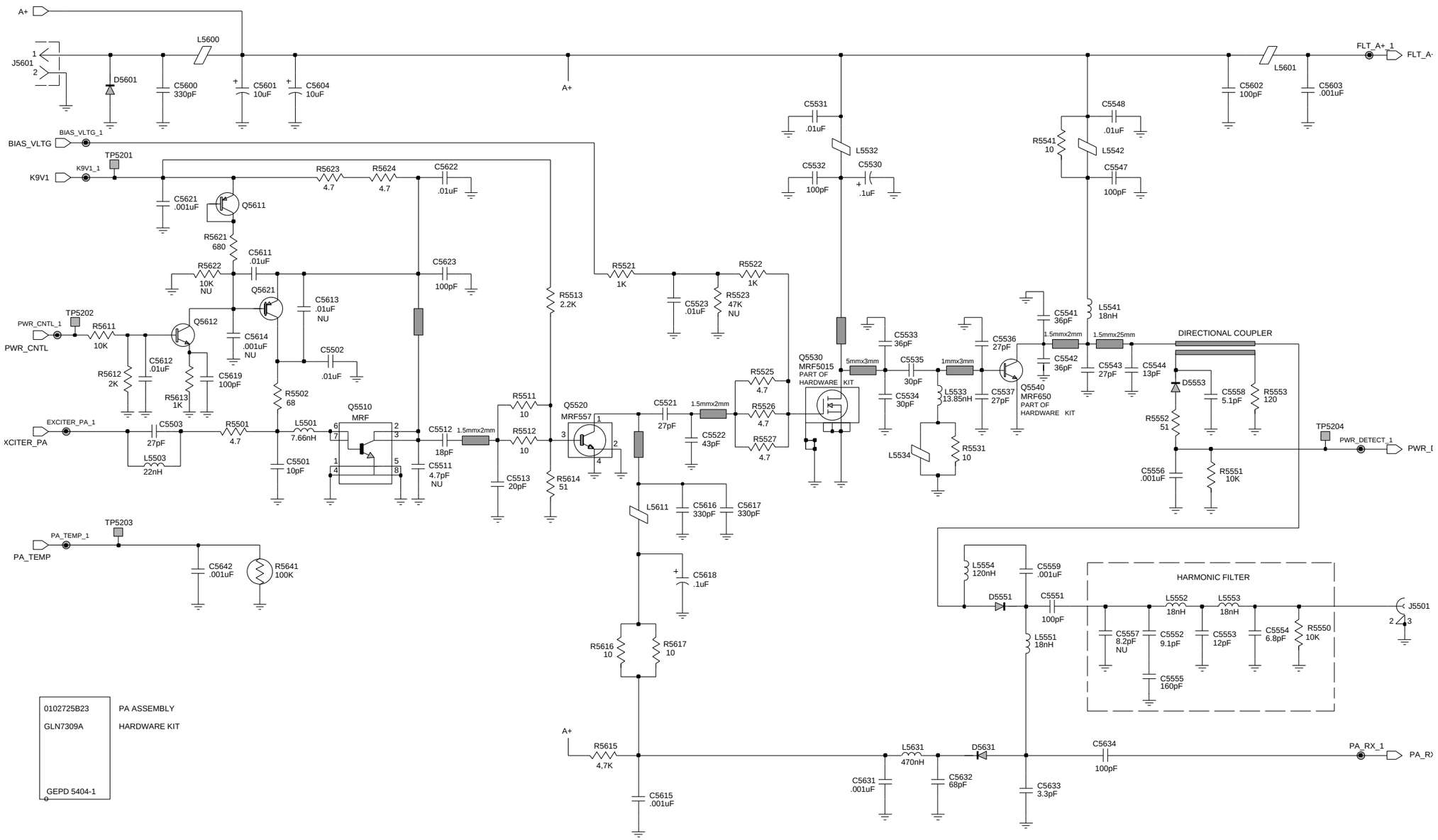
Circuit Ref	Motorola Part No.	Description
C0601	2113741F17	470pF 50V
C0602	2109720D14	100nF LOW DIST
C0603	2380090M24	LYT 10uF 50V 20%
C0604	2311049J40	33uF 20% 16V
C0605	2109720D14	100nF LOW DIST
C0611	2311049J44	TANT CP 47uF 20% 10V
C0612	2113743K15	100nF 16V
C0613	2113741F17	470pF 50V
C0621	2113741F17	470pF 50V
C0622	2311049J44	TANT CP 47uF 20% 10V
C0631	2109720D14	100nF LOW DIST
C0632	2311049J40	33uF 20% 16V
C0633	2113743E07	22nF 16V
C0634	2311049J44	47uF 20% 10V
C0635	2109720D14	100nF LOW DIST
C0641	2113743K15	100nF 16V
D0611	4813833C02	DUAL SOT MMBD6100
D0621	4813833C02	DUAL SOT MMBD6100
D0631	4813833C02	DUAL SOT MMBD6100
Q0601	4813824A10	NPN 40V
Q0611	4805128M27	PNP SOT89
Q0612	4813824A10	NPN 40V
R0601	0662057A73	10k 1/16W 5%
R0602	0660076E70	FILM 7500
R0603	0660076E51	FILM 1200
R0604	0662057A49	1k 1/16W 5%
R0605	0662057A69	6k8 1/16W 5%
R0606	0662057B47	0 1/16W
R0611	0662057A51	1k2 1/16W 5%
R0612	0660076A61	3300 5 1/8
R0613	0660076A61	3300 5 1/8
R0614	0662057A73	10k 1/16W 5%
R0615	0662057A73	10k 1/16W 5%
R0616	0662057A73	10k 1/16W 5%
R0617	0660076A61	3300 5 1/8
R0621	0662057A57	2k2 1/16W 5%
R0631	0662057A01	10 1/16W 5%
R0632	0662057A01	10 1/16W 5%
R0641	0662057A84	30k 1/16W 5%
R0642	0662057A73	10k 1/16W 5%
U0601	5105625U25	9.3V REG 2941
U0631	5105469E65	VLTG REGLTR LP2951C
VR0621	4813830A14	5.1V 5% 225mW
VR0641	4813830A14	5.1V 5% 225mW



UHF (403-470MHz) Power Control Schematic Diagram

Power Control Parts List

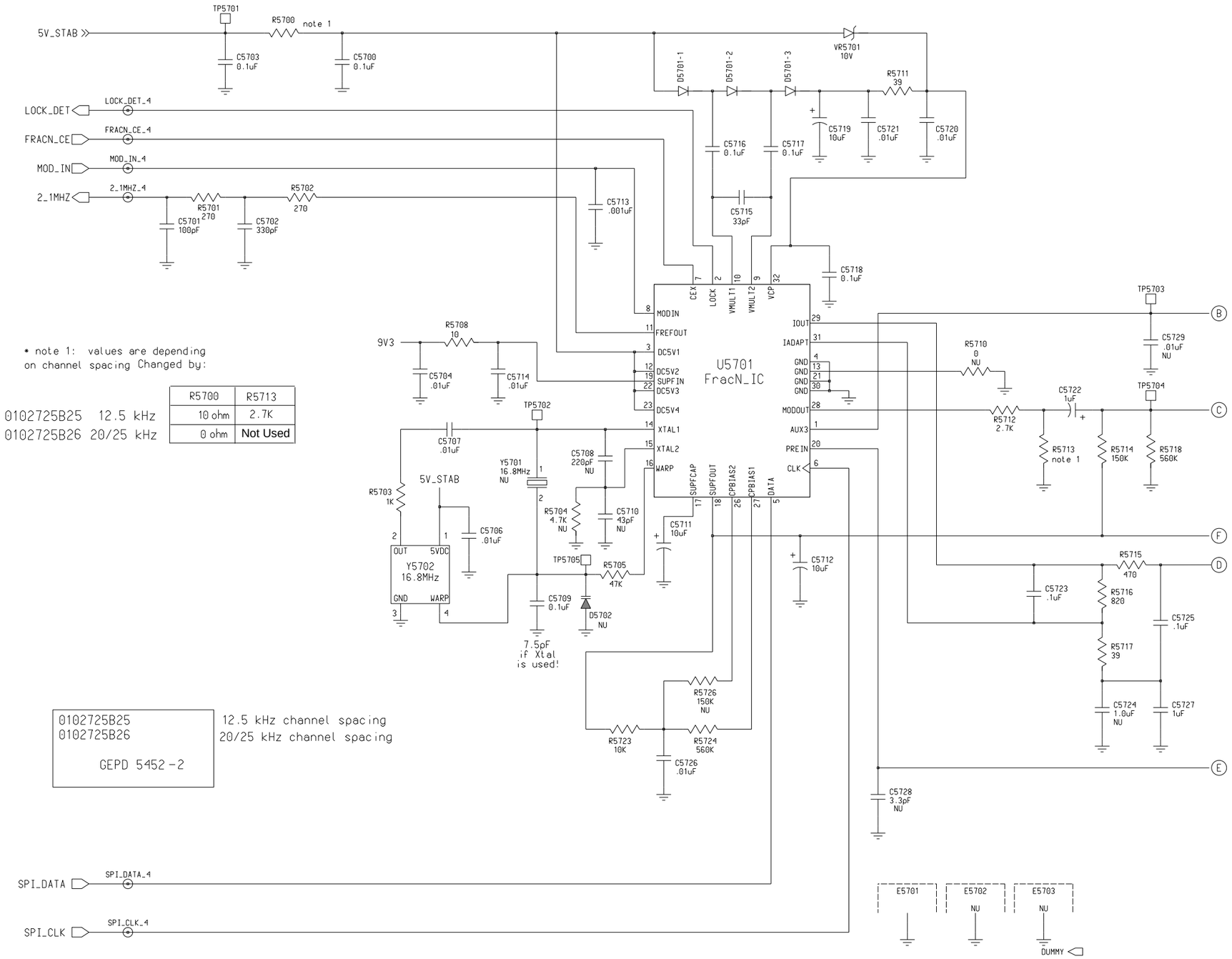
Circuit Ref	Motorola Part No.	Description
C0701	2113740F51	100pF 5% 50V
C0702	2113740F51	100pF 5% 50V
C0703	2113743K15	100nF 16V Y5V
C0711	2113741A59	39000
C0712	2113740F42	43pF 5% 50V
C0713	2113740F51	100pF 5% 50V
C0714	2113743A19	100nF 16V
C0716	2113741A33	3300
C0721	2113740F51	100pF 5% 50V
C0722	2113740F51	100pF 5% 50V
C0723	2113740F51	100pF 5% 50V
C0731	2113743K15	100nF 16V Y5V
C0732	2113740F51	100pF 5% 50V
C0733	2113743A23	220nF 16V
C0741	2113740F51	100pF 5% 50V
D0721	4813833C02	DIODE DUAL SOT MMBD6100
D0731	4813833C02	DIODE DUAL SOT MMBD6100
D0732	4813833C02	DIODE DUAL SOT MMBD6100
Q0711	4813824A10	TSTR NPN 40V .2A
Q0731	4880048M01	TSTR NPN DIG 47k/47k
Q0741	4880048M01	TSTR NPN DIG 47k/47k
Q0742	4805128M27	TSTR 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%
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	0662057R92	47.5k .1W 1%
R0735	0662057C01	0 1/10W 5%
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



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

Power Amplifier 5-25W Parts List

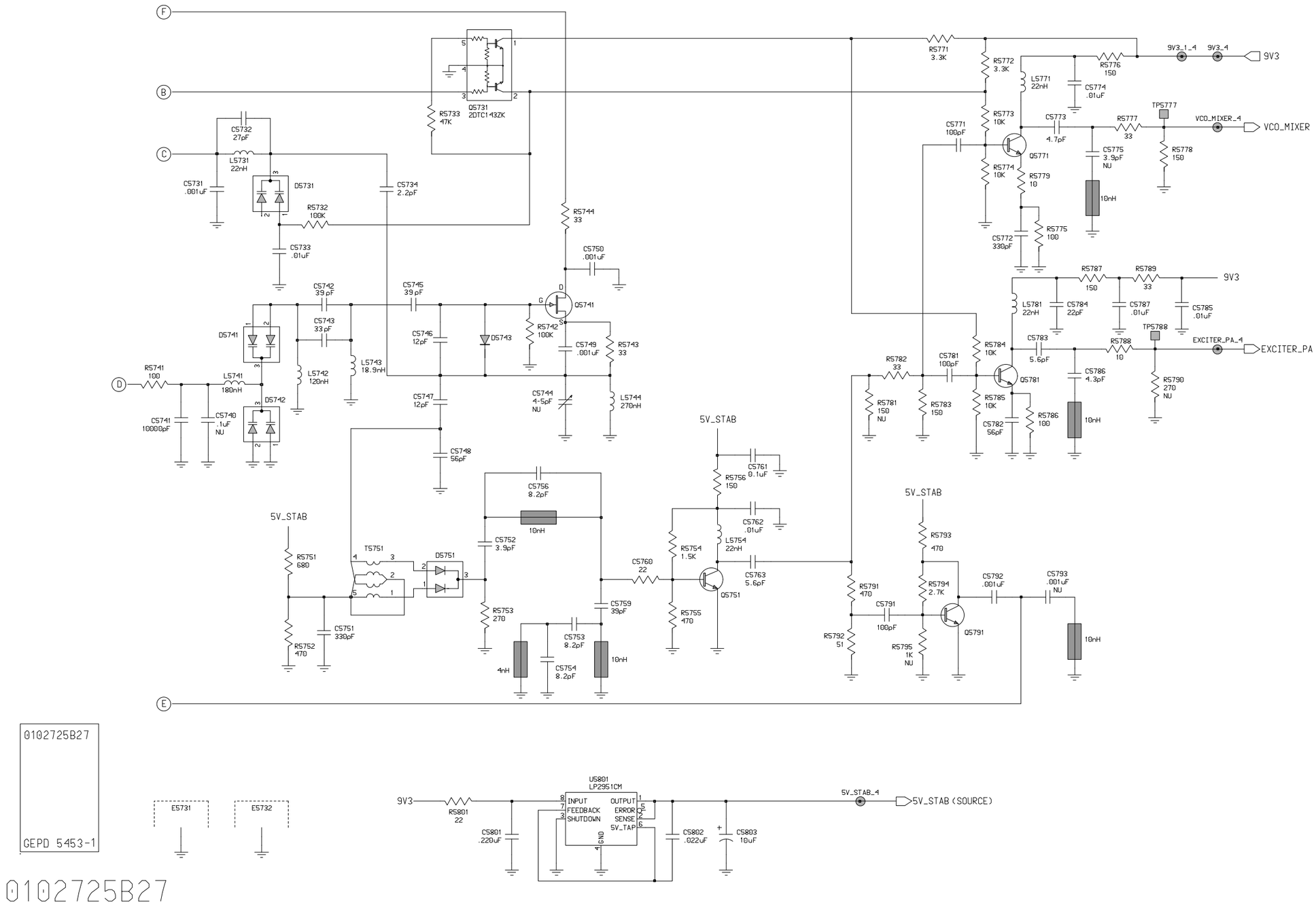
Circuit Ref	Motorola Part No.	Description
C5501	2113740F27	10pF 5% 50V
C5502	2113741F49	10nF 50V
C5503	2113740F37	27pF 5% 50V
C5512	2113740F33	18pF 5% 50V
C5513	2113740F34	20pF 5% 50V
C5521	2113740A39	27pF 5% 50V
C5522	2113740A44	43pF 5% 50V
C5523	2113741F49	10nF 50V
C5530	2311049A01	TANT CP 100nF 10% 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
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
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%
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%
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

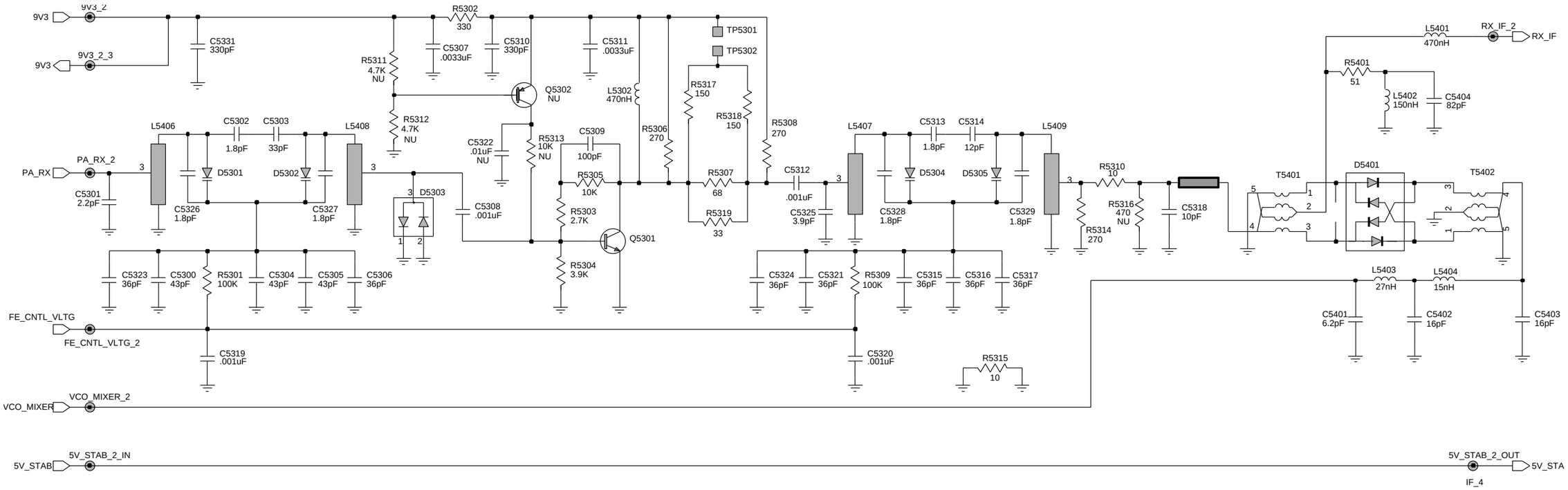


0102725B27

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

Voltage Controlled Oscillator Parts List

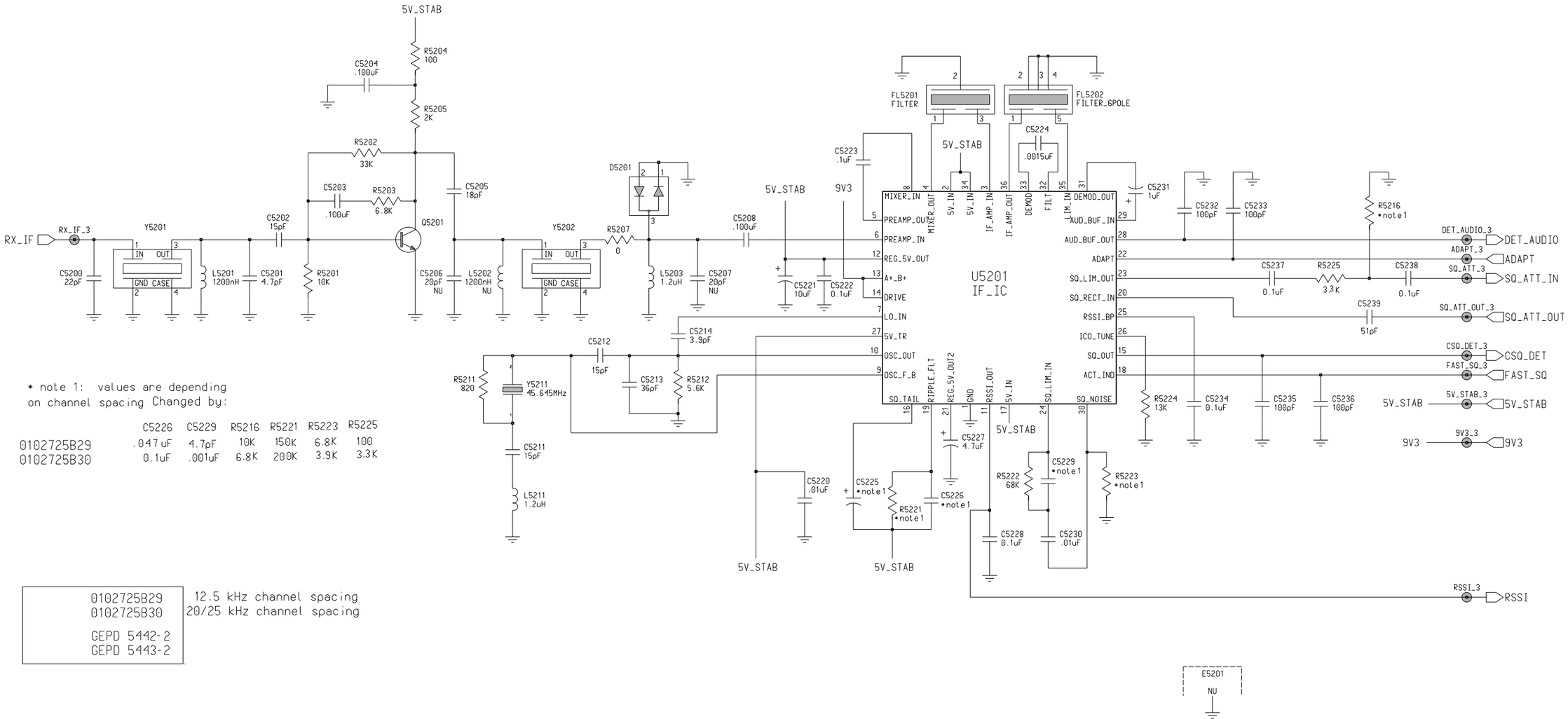
Circuit Ref	Motorola Part No.	Description
C5731	2113741F25	1nF 50V
C5732	2113740F37	27pF 5% 50V
C5733	2113741F49	10nF 50V
C5734	2113740F11	2.2pF 5% 50V
C5741	2113741A45	10nF 50V
C5742	2113740F41	39pF 5% 50V
C5743	2113740F39	33pF 5% 50V
C5745	2113740F41	39pF 5% 50V
C5746	2113740F29	12pF 5% 50V
C5747	2113740F29	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
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%
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
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



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

	C5226	C5229	R5216	R5221	R5223	R5225
0102725B29	.047 uF	4.7pF	10K	150K	6.8K	100
0102725B30	0.1uF	.001uF	6.8K	200K	3.9K	3.3K

0102725B29	12.5 kHz channel spacing
0102725B30	20/25 kHz channel spacing
GEPD 5442-2	
GEPD 5443-2	

UHF (403-470MHz) 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
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
Y5202	9102651Y02 9102652Y02	XTAL FLTR 45.1MHz 12.5KHz 60dB XTAL FLTR 45.1MHz 20/25KHz 60dB
Y5211	4802653Y01	XTAL OSC 44.645MHz