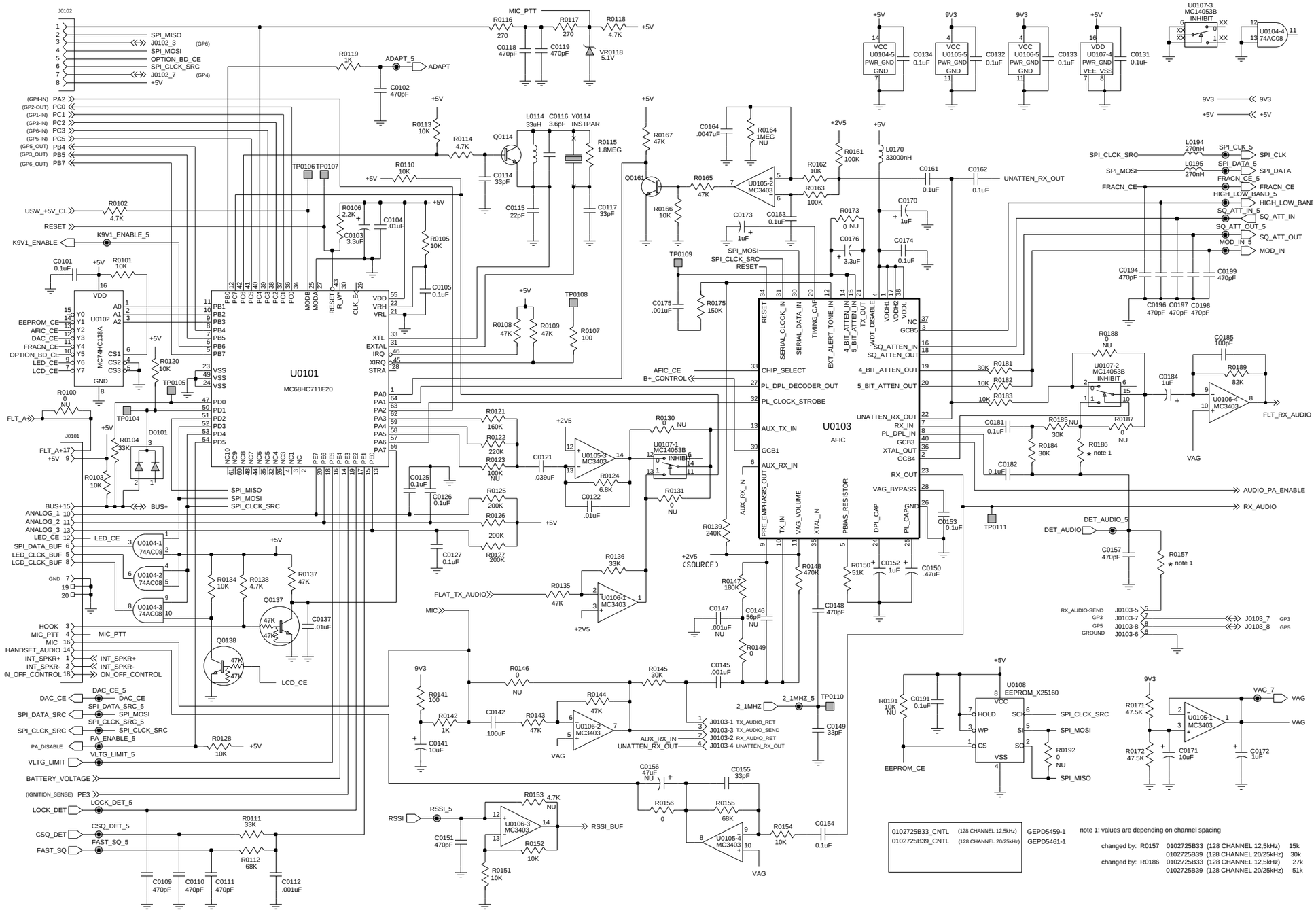
Associated Schematics	
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300-345MHz Main Board Component Side
PCB No. 8402689Y03 _T1



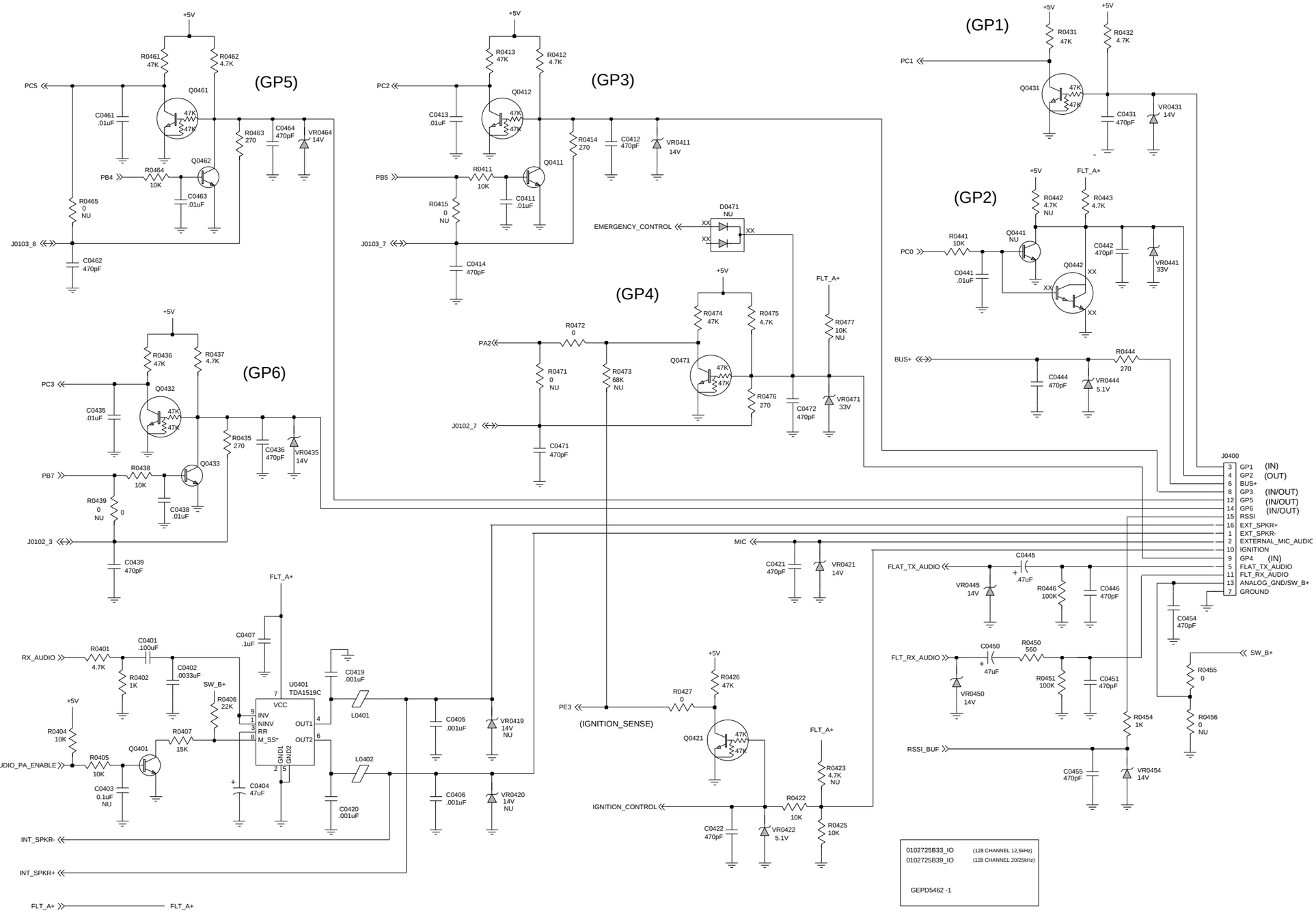
300-345MHz Main Board Solder Side
PCB No. 8402689Y03_T1



300-345MHz 128 Channel Model, Controller Schematic Diagram
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128 Channel Model, 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
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	0904424J04	Accessory Connector
J0103	0904424J04	Accessory Connector
J0400	2804503J01	Accessory Connector 16
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	TSTR NPN 40V .2A
Q0137	4880048M01	TSTR NPN DIG 47k/47k
Q0138	4880048M01	TSTR NPN DIG 47k/47k
Q0161	4813824A10	TSTR NPN 40V .2A
Q0401	4813824A10	TSTR NPN 40V .2A
Q0411	4813824A10	TSTR NPN 40V .2A
Q0412	4880048M01	TSTR NPN DIG 47k/47k
Q0421	4880048M01	TSTR NPN DIG 47k/47k
Q0431	4880048M01	TSTR NPN DIG 47k/47k
Q0432	4880048M01	TSTR NPN DIG 47k/47k
Q0433	4813824A10	TSTR NPN 40V .2A
Q0442	4880052M01	TSTR NPN DRLNGTN
Q0461	4880048M01	TSTR NPN DIG 47k/47k
Q0462	4813824A10	TSTR NPN 40V .2A
Q0471	4880048M01	TSTR 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%



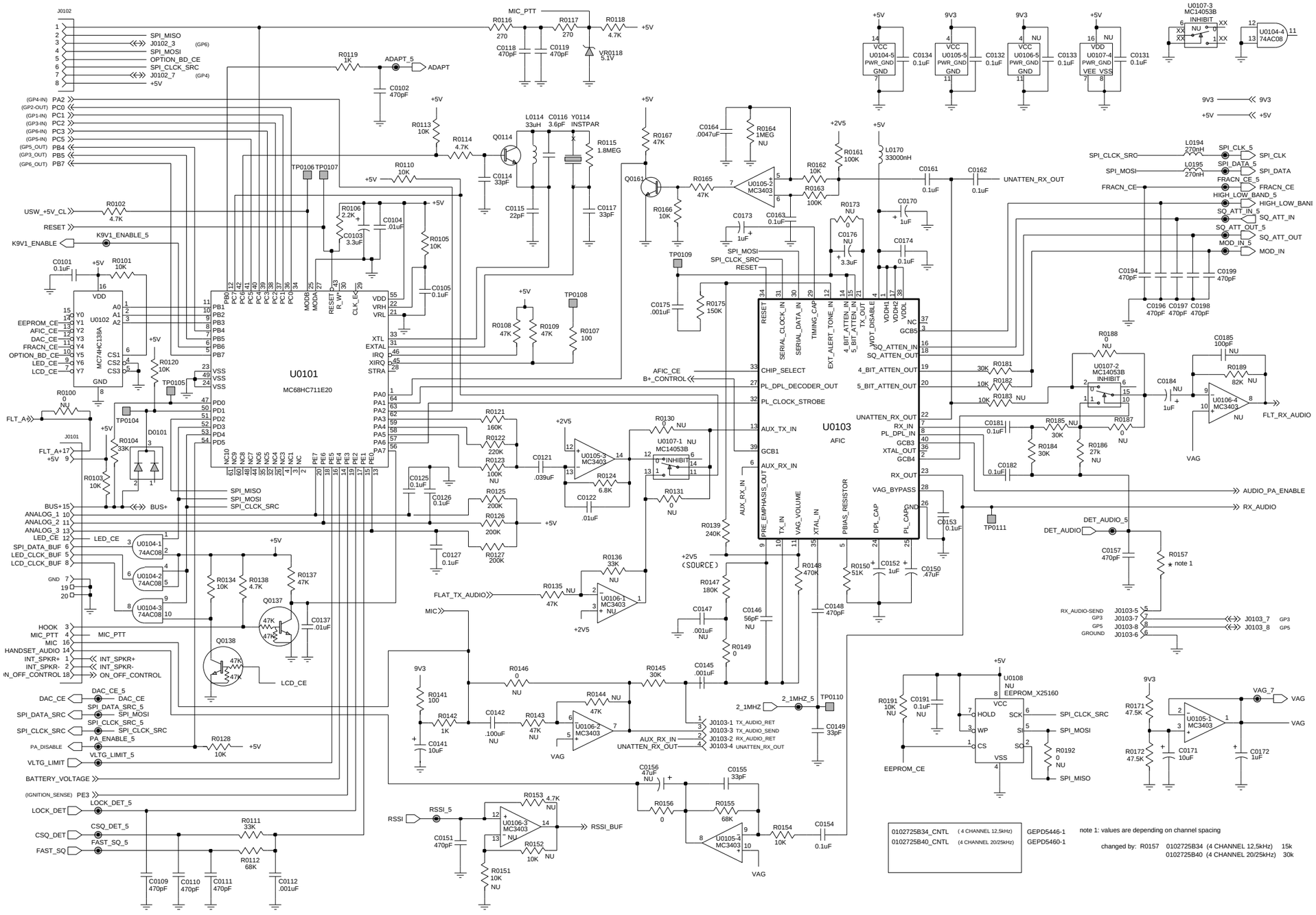
300-345MHz 128 Channel Model, Controller_IO Schematic Diagram 2 of 2

Circuit Ref	Motorola Part No.	Description
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	0662057A89	47k 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%
R0152	0662057A73	10k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
R0154	0662057A73	10k 1/16W 5%
R0155	0662057A93	68k 1/16W 5%
R0156	0662057B47	0 1/16W
R0157	0662057A77 0662057A84	15k 1/16W 5% (12.5kHz) 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 0662057A90	27k 1/16W 5% (12.5kHz) 51k 1/16W 5% (20/25kHz)
R0189	0662057A89	47k 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%
R0425	0662057A73	10k 1/16W 5%
R0426	0662057A89	47k 1/16W 5%

Circuit Ref	Motorola Part No.	Description
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%
U0101	5102226J16	68HC711E20 64PQFPOT
U0102	5113805A30	IC 10F8 DCDR/REMUX 74HC138
U0103	5105165R77	CHIP CAR 40 PIN W/63G
U0104	5105492X36	74AC08 4 AND GATES
U0105	5183222M49	IC QUAD OPAMP_3403_
U0106	5183222M49	IC QUAD OPAMP_3403_
U0107	5113806A20	IC MUX/DEMUX,TRIPLE 2-
U0108	5105462G78	IC EEPROM !&K SPEI CMOS
U0401	5109699X01	AUDIO PA TDA1915C
VR0118	4813830A14	DIODE 5.1V 5% 225mW

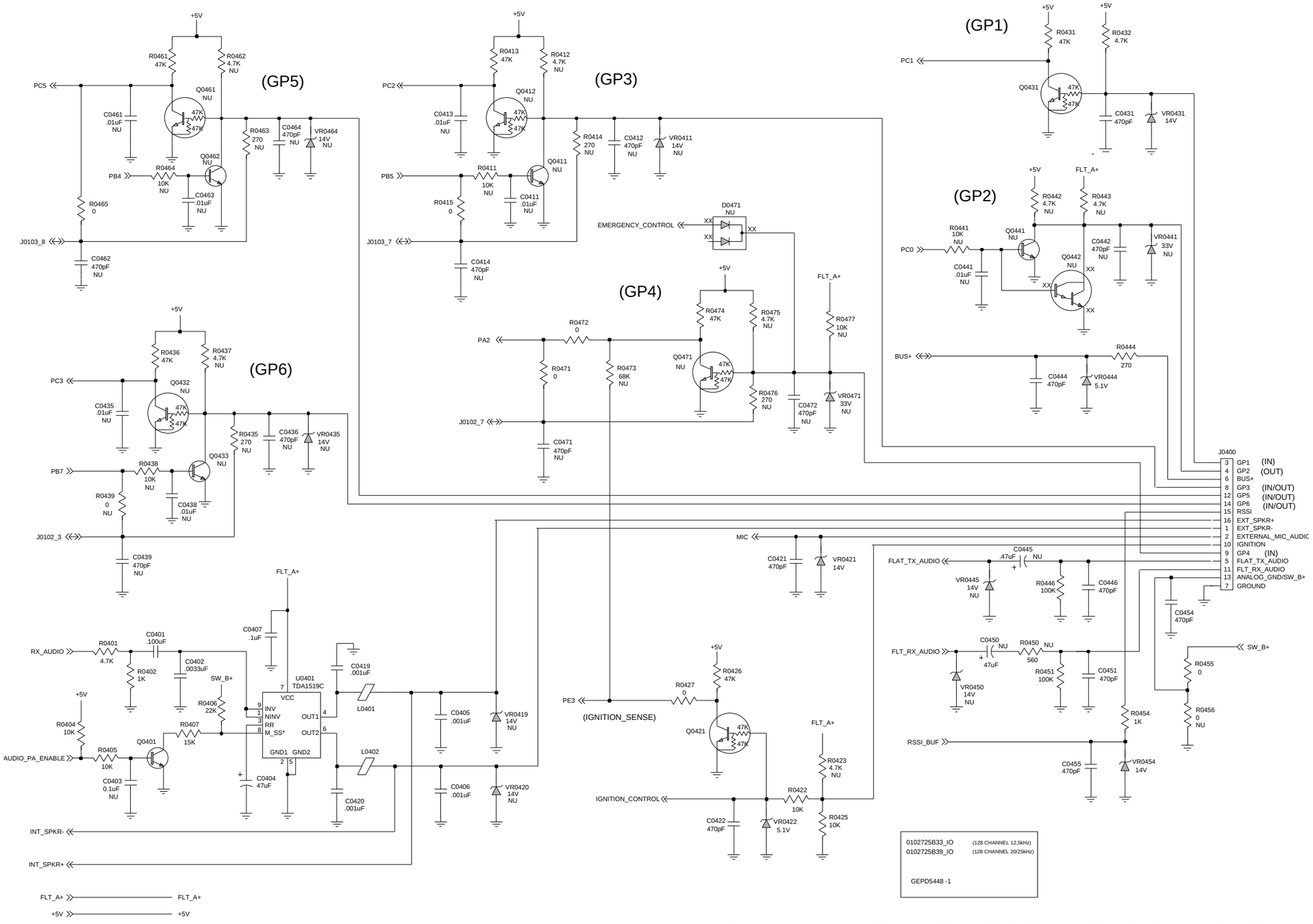
Circuit Ref	Motorola Part No.	Description
VR0411	4813830A27	DIODE 14V 5% 225mW
VR0421	4813830A27	DIODE 14V 5% 225mW
VR0422	4813830A14	DIODE 5.1V 5% 225mW
VR0431	4813830A27	DIODE 14V 5% 225mW
VR0435	4813830A27	DIODE 14V 5% 225mW
VR0441	4813830A40	SOC23 AUTO SDN
VR0444	4813830A14	DIODE 5.1V 5% 225mW
VR0445	4813830A27	DIODE 14V 5% 225mW
VR0450	4813830A27	DIODE 14V 5% 225mW
VR0454	4813830A27	DIODE 14V 5% 225mW
VR0464	4813830A27	DIODE 14V 5% 225mW
VR0471	4813830A40	SOC23 AUTO SDN
Y0114	4880113R01	CRYSTAL 7.9488



300-345MHz 4 Channel Model, Controller Schematic Diagram 1 of 2

4 Channel Model, Controller Parts List

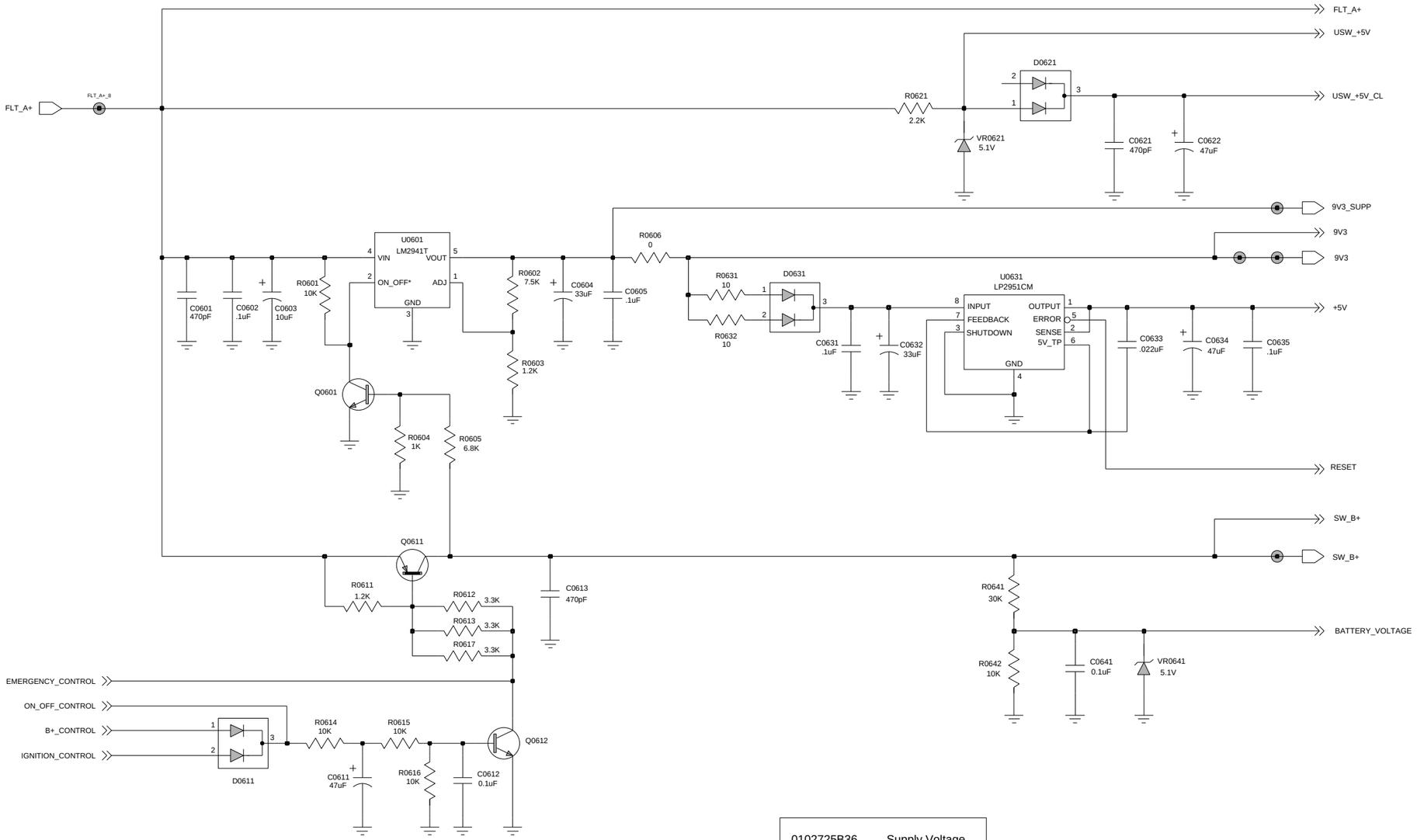
Circuit Ref	Motorola Part No.	Description
C0101	2113743K15	100nF 16V
C0102	2113741F17	470pF 50V
C0103	2311049A42	TANT CP 3.3uF 10% 6V
C0104	2113741F49	10nF 50V
C0105	2113743K15	100nF 16V
C0109	2113741F17	470pF 50V
C0110	2113741F17	470pF 50V
C0111	2113741F17	470pF 50V
C0112	2113741F25	1nF 50V
C0114	2113740A41	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
C0454	2113741F17	470pF 50V
C0455	2113741F17	470pF 50V
D0101	4813833C02	DUAL SOT MMBD6100
J0101	0902636Y01	Connector Flex Side Entry
J0102	0904424J04	Accessory Connector
J0103	0904424J04	Accessory Connector
J0400	2804503J01	Accessory Connector 16
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



300-345MHz 4 Channel Model, Controller Schematic Diagram 2 of 2

Circuit Ref	Motorola Part No.	Description
R0157	0662057A77 0662057A84	15k 1/16W 5% (12.5kHz) 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%
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%

Circuit Ref	Motorola Part No.	Description
R0471	0662057B47	0 1/16W
R0472	0662057B47	0 1/16W
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

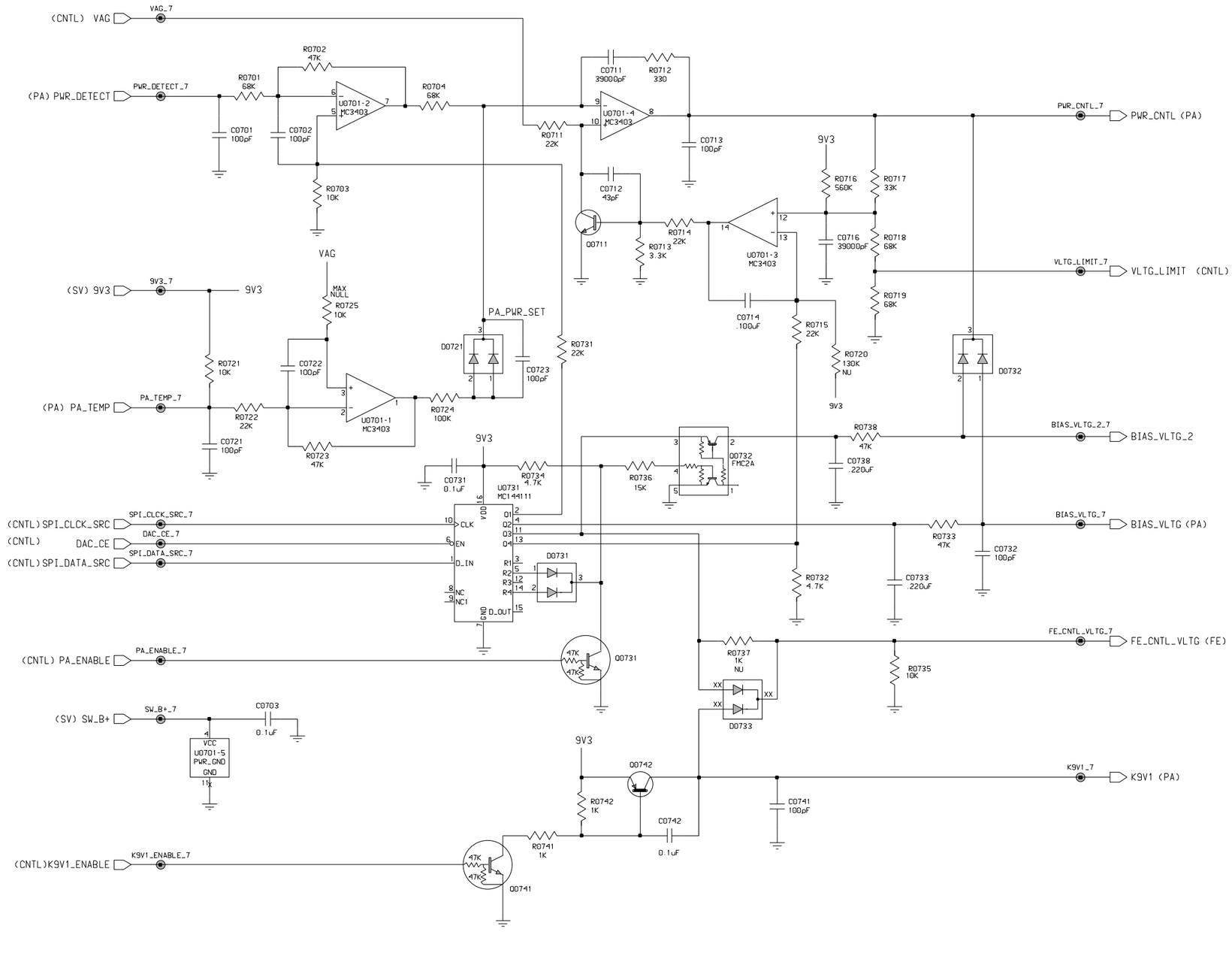


0102725B36	Supply Voltage
GEPD5449-1	

300-345MHz 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



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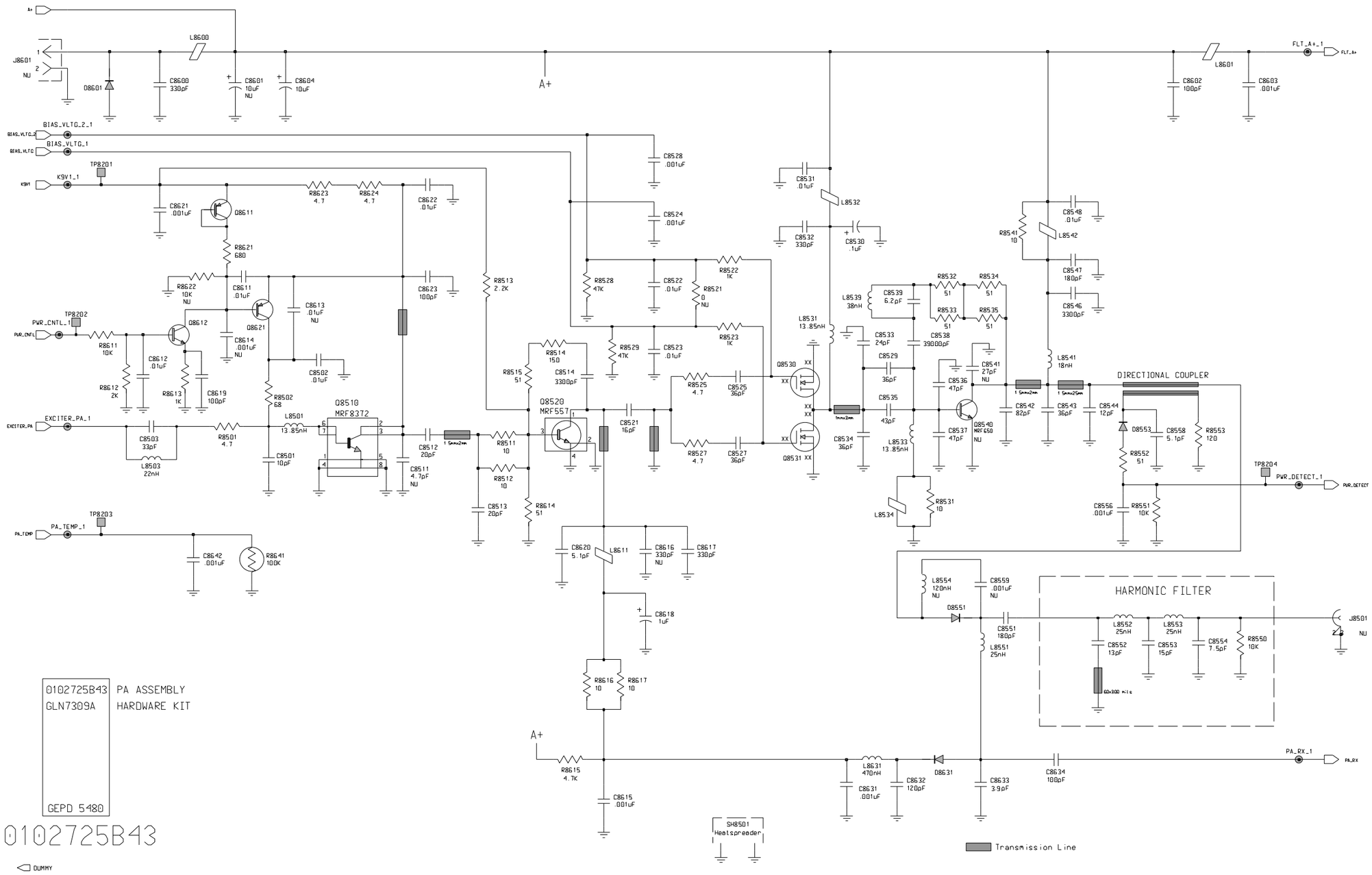
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300-345MHz Power Control Schematic Diagram

300-345MHz Power Control Parts List

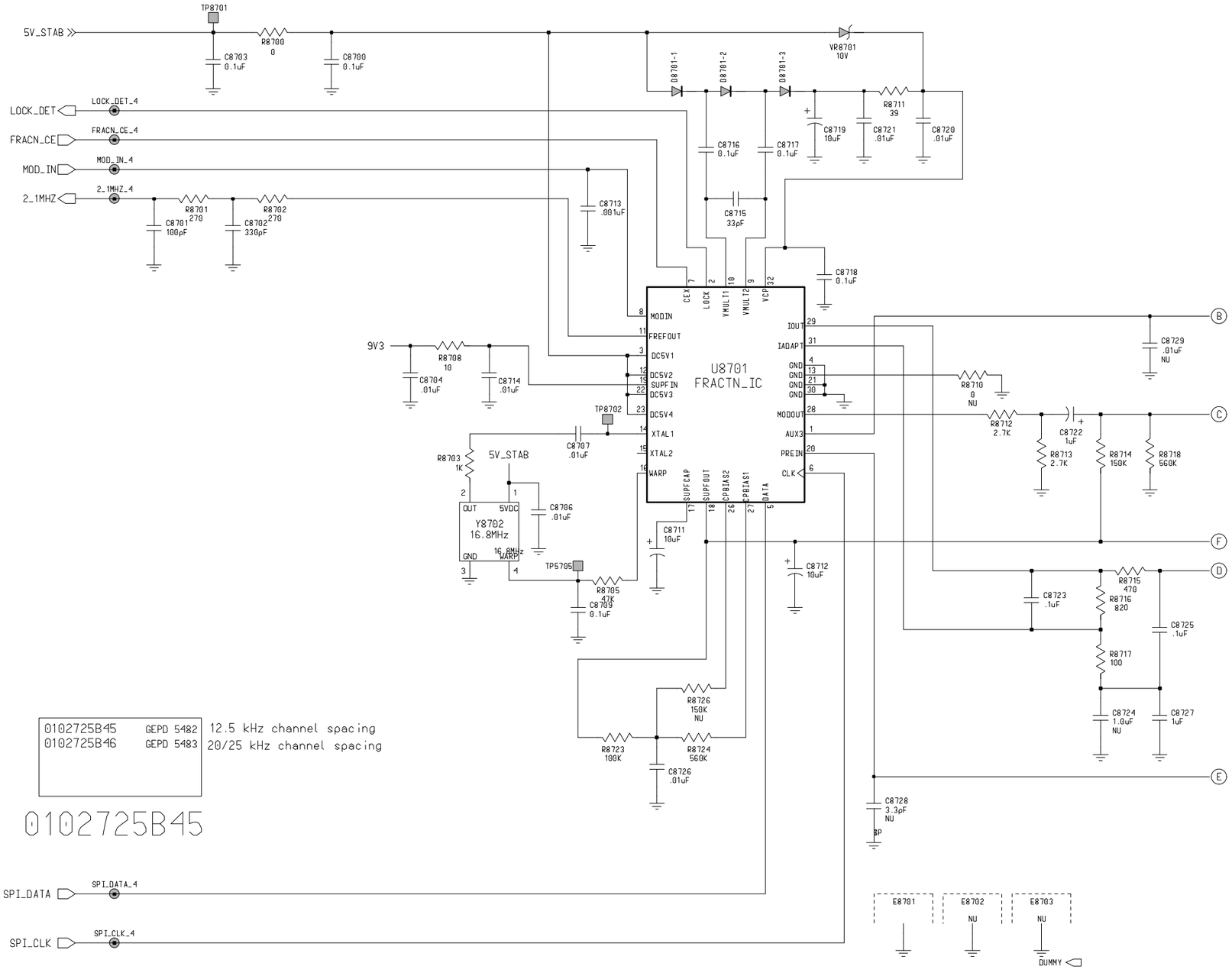
Circuit Ref	Motorola Part No.	Description
C0701	2113740F51	100pF 5% 50V
C0702	2113740F51	100pF 5% 50V
C0703	2113743K15	100nF 16V
C0711	2113741A59	CL2
C0712	2113740F42	43pF 5% 50V
C0713	2113740F51	100pF 5% 50V
C0714	2113743A19	100nF 16V
C0716	2113741A59	CL2
C0721	2113740F51	100pF 5% 50V
C0722	2113740F51	100pF 5% 50V
C0723	2113740F51	100pF 5% 50V
C0731	2113743K15	100nF 16V Y5V
C0732	2113740F51	100pF 5% 50V
C0733	2113743A23	220nF 16V
C0736	2113743A23	220nF 16V
C0741	2113740F51	100pF 5% 50V
C0742	2113743K15	100nF 16V
D0721	4813833C02	DIODE DUAL SOT MMBD6100
D0731-D0733	4813833C02	DIODE DUAL SOT MMBD6100
Q0711	4813824A10	TSTR NPN 40V .2A
Q0731	4880048M01	TSTR NPN DIG 47k/47k
Q0732	4805921T02	TSTR DUAL ROHM FMC2
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	0662057A65	4k7 1/16W 5%
R0735	0662057A73	10k 1/16W 5%
R0736	0662057A77	15k 1/16W 5%
R0738	0662057A89	47k 1/16W 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 W/SPI



300-345MHz Power Amplifier 5-25W Schematic Diagram

300-345MHz Power Amplifier 5-25W Parts List

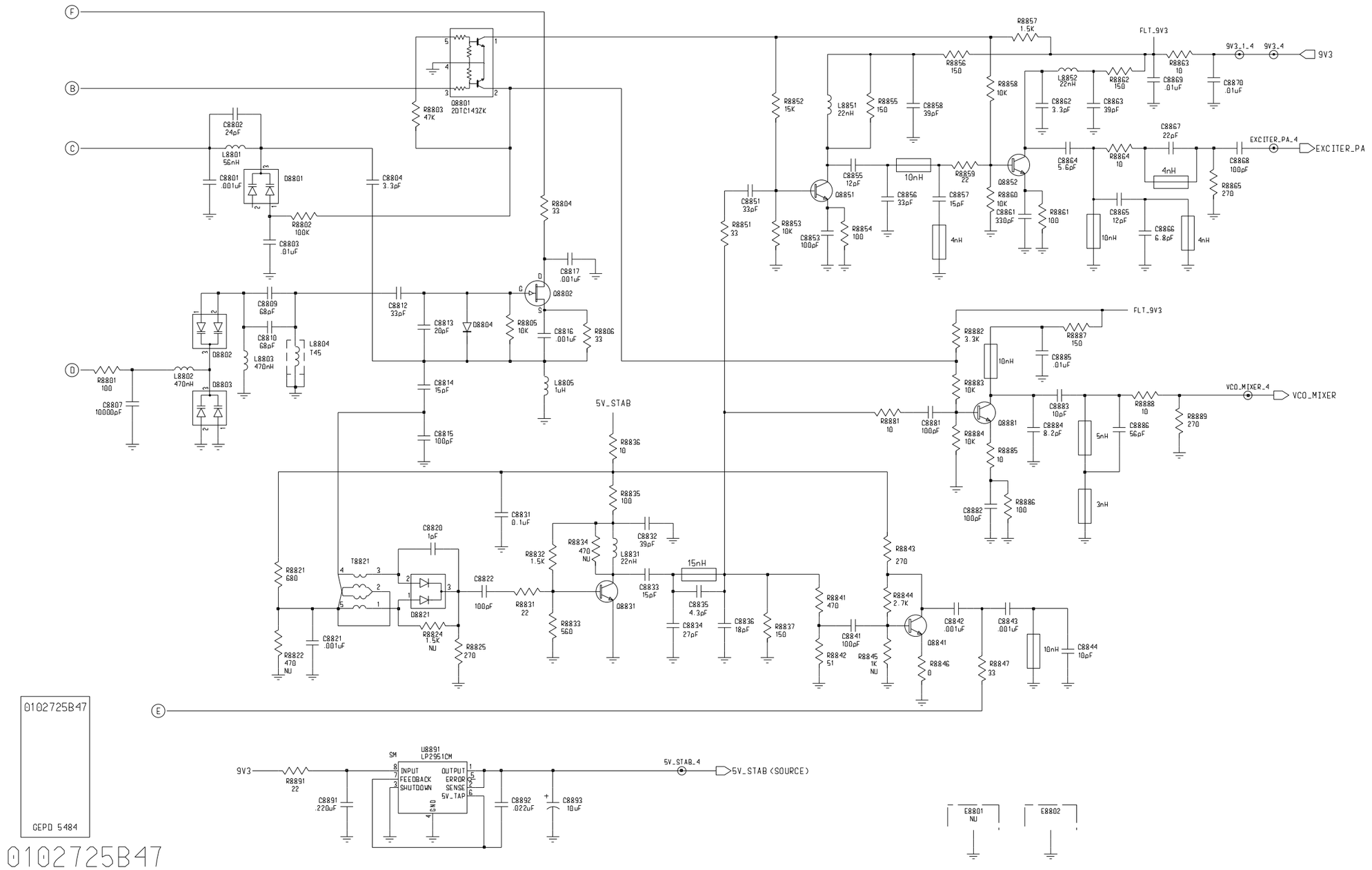
Circuit Ref	Motorola Part No.	Description
C8501	2113740F27	10pF 5% 50V
C8502	2113741F49	10nF 50V
C8503	2113740F39	33pF 5% 50V
C8512	2113740F34	20pF 5% 50V
C8513	2113740F34	20pF 5% 50V
C8514	2113740A33	3.3nF 50V
C8521	2113740A34	16pF 5% 50V
C8522	2113741F49	10nF 50V
C8523	2113741F49	10nF 50V
C8524	2113741F25	1nF 50V
C8525	2113740A42	36pF 5% 50V
C8527	2113740A42	36pF 5% 50V
C8528	2113741F25	1nF 50V
C8529	2113740A42	36pF 5% 50V
C8530	2311049A01	TANT CP 100nF 10% 35V
C8531	2113741F49	10nF 50V
C8532	2113740A67	330pF 5% 50V
C8533	2111078B23	HQ 24pF 5%
C8534	2111078B31	HQ 36pF 5%
C8535	2113740A44	43pF 5% 50V
C8536	2111078B34	HQ 47pF 5%
C8537	2111078B34	HQ 47pF 5%
C8538	2113741A59	CL2
C8539	2111078B05	HQ 4.7pF 5%
C8542	2111078B39	HQ 75pF 5%
C8543	2111078B31	HQ 36pF 5%
C8544	2111078B15	HQ 12pF 5%
C8546	2113741A33	3.3nF 50V
C8547	2111078B49	HQ 180pF 5%
C8548	2113741F49	10nF 50V
C8551	2111078B49	HQ 180pF 5%
C8552	2111078B16	HQ 13pF 5%
C8553	2111078B18	HQ 15pF 5%
C8554	2111078B10	HQ 7.5pF 5%
C8556	2113741F25	1nF 50V
C8558	2113740F20	5.1pF 5% 50V
C8600	2113740A67	330pF 5% 50V
C8602	2113740F51	100pF 5% 50V
C8603	2113741F25	1nF 50V
C8604	2311049A45	TANT CP 10uF 10% 35V
C8611	2113741F49	10nF 50V
C8612	2113741F49	10nF 50V
C8615	2113741F25	1nF 50V
C8617	2113740A67	330pF 5% 50V
C8618	2311049A01	TANT CP 100nF 10% 35V
C8619	2113740F51	100pF 5% 50V
C8620	2113741F20	5.1pF 5% 50V
C8621	2113741F25	1nF 50V
C8622	2113741F49	10nF 50V
C8623	2113740F51	100pF 5% 50V
C8631	2113741F25	1nF 50V
C8632	2111078B42	HQ 100pF 5%
C8633	2113740F21	5.6pF 5% 50V
C8634	2113740F51	100pF 5% 50V
C8642	2113741F25	1nF 50V
D8551	4802482J02	DIODE PIN MA/COM
D8553	4880236E05	DIODE CHIP SCHOTTKY
D8601	4813832B35	DIODE TRANSORB
D8631	4802482J02	DIODE PIN MA/COM
L8501	2460591C23	SQUARE COIL 16nH 3T
L8503	2462587T38	COIL CHIP 22nH 5%
L8531	2460591C23	SQUARE COIL 16nH 3T
L8532	2484657R01	Ferrite Bead
L8533	2460591C23	SQUARE COIL 16nH 3T
L8534	2484657R01	Ferrite Bead
L8539	2460591M77	COIL SQUARE 38nH
L8541	2460591X01	COIL SQUARE
L8542	2484657R01	Ferrite Bead
L8551-L8553	2460591X02	COIL SQUARE 25nH
L8600	2484657R01	Ferrite Bead
L8601	2484657R01	Ferrite Bead
L8611	2484657R01	Ferrite Bead
L8631	2462587T23	COIL CHIP 470nH
Q8510	4813827A26	TSTR RF NPN MRF8372
Q8520	4813827D03	TSTR G=9.0DB 870MHZ
Q8530	4813827A36	TSTR MRF 5003
Q8531	4813827A36	TSTR MRF 5003
Q8611	4813824A17	TSTR PNP 40V .2A
Q8612	4813824A10	TSTR NPN 40V .2A
Q8621	4813824A17	TSTR PNP 40V .2A
R8501	0662057C19	4R7 1/10W 5%
R8502	0662057A21	68 1/16W 5%
R8511	0662057A01	10 1/16W 5%
R8512	0662057A01	10 1/16W 5%
R8513	0662057A57	2k2 1/16W 5%
R8514	0662057C55	CHIP RES 150 5%
R8515	0662057C44	51 1/10W 5%
R8522	0662057A49	1k 1/16W 5%
R8523	0662057A49	1k 1/16W 5%
R8525	0662057C19	4R7 1/10W 5%
R8527	0662057C19	4R7 1/10W 5%
R8528	0662057A89	47k 1/16W 5%
R8529	0662057A89	47k 1/16W 5%
R8531	0680194M01	10 1W 5%
R8532-R8535	0680194M18	51 1W 5%
R8541	0680194M01	10 1W 5%
R8550	0662057A73	10k 1/16W 5%
R8551	0662057A73	10k 1/16W 5%
R8552	0662057A18	51 1/16W 5%
R8553	0683962T51	120 1W 5%
R8611	0662057A73	10k 1/16W 5%
R8612	0662057A56	2k 1/16W 5%
R8613	0662057A49	1k 1/16W 5%
R8614	0662057A18	51 1/16W 5%
R8615	0662057A65	4k7 1/16W 5%
R8616	0680194M01	10 1W 5%
R8617	0680194M01	10 1W 5%
R8621	0662057A45	680 OHMS 5%
R8623	0662057C19	4R7 1/10W 5%
R8624	0662057C19	4R7 1/10W 5%
R8641	0680149M02	Thermistor 100K @25C
SH8501	2602642Y01	Heat Spreader



300-345MHz Synthesizer Schematic Diagram

300-345MHz Synthesizer Parts List

Circuit Ref	Motorola Part No.	Description
C8700	2113743K15	100nF 16V
C8701	2113740F51	100pF 5% 50V
C8702	2113741F13	330pF 50V
C8703	2113743K15	100nF 16V
C8704	2113741F49	10nF 50V
C8706	2113741F49	10nF 50V
C8707	2113741F49	10nF 50V
C8709	2113743K15	100nF 16V
C8711	2311049J23	TANT CP 10uF 10% 6V
C8712	2311049J26	TANT CP 10uF 20% 16V
C8713	2113741F25	1nF 50V
C8714	2113741F49	10nF 50V
C8715	2113740F39	33pF 5% 50V
C8716	2113743K15	100nF 16V
C8717	2113743K15	100nF 16V
C8718	2113743K15	100nF 16V
C8719	2311049A19	TANT CP 10uF 10% 25V
C8720	2113741F49	10nF 50V
C8721	2113741F49	10nF 50V
C8722	2311049A07	TANT CP 1uF 10% 16V
C8723	2109720D14	CER LOW DIST 100nF
C8725	2109720D14	CER LOW DIST 100nF
C8726	2113741F49	10nF 50V
C8727	0811051A19	MTLZ POLY 1uF 5%
D8701	4802233J09	DIODE TRIPLE SOT143-RH
E8701	2605915V01	SHLD PCB MOUNT 1
R8700	0662057B47	0 1/16W
R8701	0662057A35	270 1/16W 5%
R8702	0662057A35	270 1/16W 5%
R8703	0662057A49	1k 1/16W 5%
R8705	0662057A89	47k 1/16W 5%
R8708	0662057A01	10 1/16W 5%
R8711	0662057A15	39 1/16W 5%
R8712	0662057A59	2k7 1/16W 5%
R8713	0662057A59	2k7 1/16W 5% (12.5kHz)
R8714	0662057B02	150k 1/16W
R8715	0662057A41	470 1/16W 5%
R8716	0662057A49	1k 1/16W 5%
R8717	0662057A25	100 1/16W 5%
R8718	0662057B16	560k 1/16W 5%
R8723	0662057A97	100k 1/16W
R8724	0662057B16	560k 1/16W 5%
U8701	5105457W61	CC QFP CONT 91W55
VR8701	4813830A23	10V 5% 20mA 350mW
Y8702	4809863M01	REF OSC 16.8 MHZ

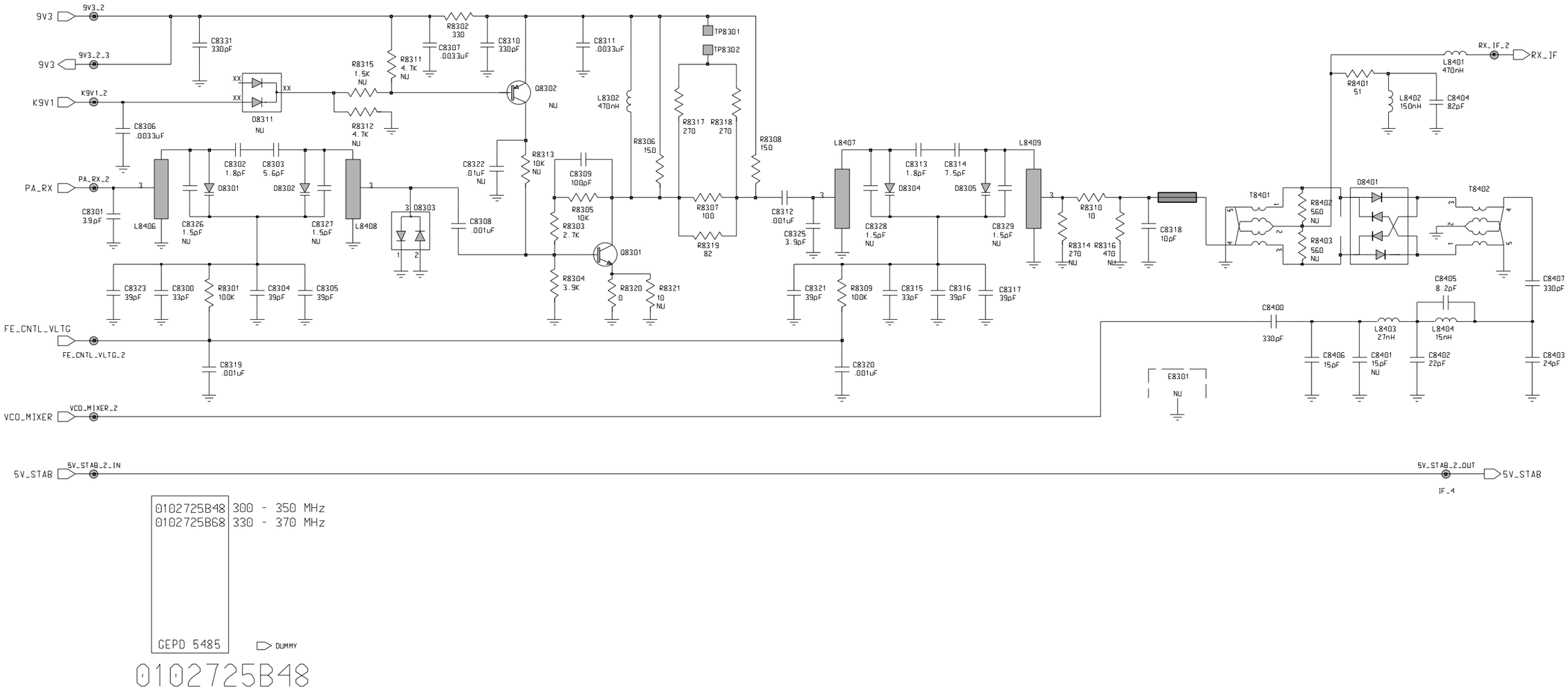


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300-345MHz Voltage Controlled Oscillator Schematic Diagram

300-345MHz VCO Parts List

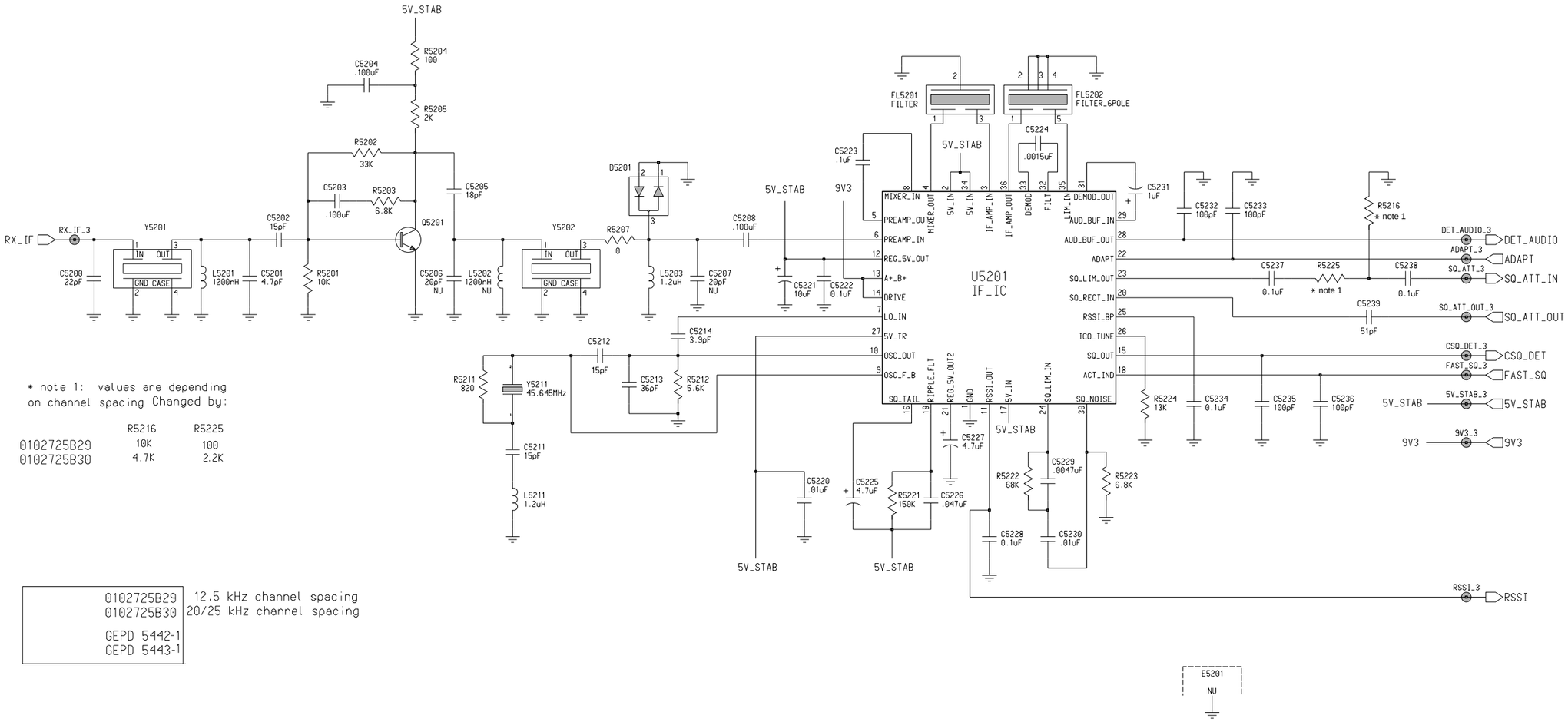
Circuit Ref	Motorola Part No.	Description
C8801	2113741F25	1nF 50V
C8802	2113740F36	24pF 5% 50V
C8803	2113741F49	10nF 50V
C8804	2113740F15	3.3pF 5% 50V
C8807	2113741A45	CAP CHP 10nF 50V
C8809	2113740F47	68pF 5% 50V
C8810	2113740F47	68pF 5% 50V
C8812	2113740F39	33pF 5% 50V
C8813	2113740F29	12pF 5% 50V
C8814	2113740F27	10pF 5% 50V
C8815	2113740F45	56pF 5% 50V
C8816	2113741F25	1nF 50V
C8817	2113741F25	1nF 50V
C8820	2113740F03	1pF 5% 50V
C8821	2113741F25	1nF 50V
C8822	2113740F51	100pF 5% 50V
C8831	2113743K15	100nF 16V
C8832	2113740F41	39pF 5% 50V
C8833	2113740F31	15pF 5% 50V
C8834	2113740F37	27pF 5% 50V
C8835	2113740F18	4.3pF 5% 50V
C8836	2113740F33	18pF 5% 50V
C8841	2113740F51	100pF 5% 50V
C8842	2113741F25	1nF 50V
C8843	2113741F25	1nF 50V
C8844	2113740F27	10pF 5% 50V
C8851	2113740F39	33pF 5% 50V
C8853	2113740F51	100pF 5% 50V
C8855	2113740F29	12pF 5% 50V
C8856	2113740F39	33pF 5% 50V
C8857	2113740F31	15pF 5% 50V
C8858	2113740F41	39pF 5% 50V
C8861	2113740F13	330pF 50V
C8862	2113740F15	3.3pF 5% 50V
C8863	2113740F41	39pF 5% 50V
C8864	2113740F21	5.6pF 5% 50V
C8865	2113740F29	12pF 5% 50V
C8866	2113740F23	6.8pF 5% 50V
C8867	2113740F35	22pF 5% 50V
C8868	2113740F51	100pF 5% 50V
C8869	2113741F49	10nF 50V
C8870	2113741F49	10nF 50V
C8881	2113740F51	100pF 5% 50V
C8882	2113740F51	100pF 5% 50V
C8883	2113740F27	10pF 5% 50V
C8884	2113740F25	8.2pF 5% 50V
C8885	2113741F49	10nF 50V
C8886	2113740F45	56pF 5% 50V
C8891	2113743A23	220nF 16V
C8892	2113743E07	22nF 16V
C8893	2311049J11	CAP TANT CP 4.7uF 10% 16V
D8801-D8803	4805649Q13	DIODE VCTR 1SV228 SOT23
D8804	4880236E05	DIODE CHIP SCHOTTKY
D8821	4805218N57	DIODE DUAL SCHOTTKY SOT23
E8802	2602641Y01	SHIELD
L8801	2462587T12	COIL CHIP 56nH
L8802	2462587T23	COIL CHIP 470nH
L8803	2462587T23	COIL CHIP 470nH
L8804	0105950T45	COIL HELICAL MOLDED FIN .175
L8805	2462587T30	COIL CHIP 1uH
L8831	2462587T38	COIL CHIP 22nH 5%
L8851	2462587T38	COIL CHIP 22nH 5%
L8852	2462587T38	COIL CHIP 22nH 5%
Q8801	4805921T09	XSTR DUAL ROHM FMG8
Q8802	4813823A05	TSTR N-CH RF JFET MMBU310LT1
Q8831	4813827A07	TSTR NPN SML SIG MMBR9
Q8841	4813827A07	TSTR NPN SML SIG MMBR9
Q8851	4813827A07	TSTR NPN SML SIG MMBR9
Q8852	4813827A07	TSTR NPN SML SIG MMBR9
Q8881	4813827A07	TSTR NPN SML SIG MMBR9
R8801	0662057A25	100 1/16W 5%
R8802	0662057A97	100k 1/16W
R8803	0662057A89	47k 1/16W 5%
R8804	0662057A13	33 1/16W 5%
R8805	0662057A73	10k 1/16W 5%
R8806	0662057A13	33 1/16W 5%
R8821	0662057A45	680 OHMS 5%
R8825	0662057A35	270 1/16W 5%
R8831	0662057A09	22 1/16W 5%
R8832	0662057A53	1k5 1/16W 5%
R8833	0662057A43	560 1/16W 5%
R8835	0662057A25	100 1/16W 5%
R8836	0662057A01	10 1/16W 5%
R8837	0662057A29	150 1/16W 5%
R8841	0662057A41	470 1/16W 5%
R8842	0662057A18	51 1/16W 5%
R8843	0662057A35	270 1/16W 5%
R8844	0662057A59	2k7 1/16W 5%
R8846	0662057B47	0 1/16W
R8847	0662057A13	33 1/16W 5%
R8851	0662057A13	33 1/16W 5%
R8852	0662057A77	15k 1/16W 5%
R8853	0662057A73	10k 1/16W 5%
R8854	0662057A25	100 1/16W 5%
R8855	0662057A29	150 1/16W 5%
R8856	0662057A29	150 1/16W 5%
R8857	0662057A53	1k5 1/16W 5%
R8858	0662057A73	10k 1/16W 5%
R8859	0662057A09	22 1/16W 5%
R8860	0662057A73	10k 1/16W 5%
R8861	0662057A25	100 1/16W 5%
R8862	0662057A29	150 1/16W 5%
R8863	0662057A01	10 1/16W 5%
R8864	0662057A01	10 1/16W 5%
R8865	0662057A35	270 1/16W 5%
R8881	0662057A01	10 1/16W 5%
R8882	0662057A61	3k3 1/16W 5%
R8883	0662057A73	10k 1/16W 5%
R8884	0662057A73	10k 1/16W 5%
R8885	0662057A01	10 1/16W 5%
R8886	0662057A25	100 1/16W 5%
R8887	0662057A29	150 1/16W 5%
R8888	0662057A01	10 1/16W 5%
R8889	0662057A35	270 1/16W 5%
R8891	0662057A09	22 1/16W 5%
T8821	2505515V03	XFMR MIXER SMD 4:1
U8891	5105469E65	VLTG REGLTR LP2951C



300-345MHz RX-FE Schematic Diagram

300-345MHz RX-FE Parts List

Circuit Ref	Motorola Part No.	Description
C8300	2113740F39	33pF 5% 50V
C8301	2113740F19	4.7pF 5% 50V
C8302	2113740F09	1.8pF 5% 50V
C8303	2113740F21	5.6pF 5% 50V
C8304	2113740F41	39pF 5% 50V
C8305	2113740F41	39pF 5% 50V
C8306	2113741F37	3.3nF 50V
C8307	2113741F37	3.3nF 50V
C8308	2113741F25	1nF 50V
C8309	2113740F51	100pF 5% 50V
C8310	2113741F13	330pF 50V
C8311	2113741F37	3.3nF 50V
C8312	2113741F25	1nF 50V
C8313	2113740F09	1.8pF 5% 50V
C8314	2113740F24	7.5pF 5% 50V
C8315	2113740F39	33pF 5% 50V
C8316	2113740F41	39pF 5% 50V
C8317	2113740F41	39pF 5% 50V
C8318	2113740F27	10pF 5% 50V
C8319	2113741F25	1nF 50V
C8320	2113741F25	1nF 50V
C8321	2113740F41	39pF 5% 50V
C8323	2113740F41	39pF 5% 50V
C8325	2113740F17	3.9pF 5% 50V
C8331	2113741F13	330pF 50V
C8400	2113740F63	330pF 5% 50V
C8402	2113740F35	22pF 5% 50V
C8403	2113740F36	24pF 5% 50V
C8404	2113740F49	82pF 5% 50V
C8405	2113740F25	8.2pF 5% 50V
C8406	2113740F31	15pF 5% 50V
C8407	2113740F63	330pF 5% 50V
D8301	4862824C01	DIODE VARACTOR
D8302	4862824C01	DIODE VARACTOR
D8303	4880154K03	DUAL SCHOTTKY SOT23
D8304	4862824C01	DIODE VARACTOR
D8305	4862824C01	DIODE VARACTOR
D8401	4880174R01	DIODE QUAD SOIC 8 PIN
L8302	2462587T23	COIL CHIP 470nH
L8401	2462587T23	COIL CHIP 470nH
L8402	2462587T17	COIL CHIP 150nH
L8403	2462587X46	IND Chip LO-PRO 27.0 N
L8404	2462587X43	IND Chip LO-PRO 15.0 N
Q8301	4813827A07	TSTR NPN SML SIG MMBR9
R8301	0662057A97	100k 1/16W
R8302	0662057A37	330 1/16W 5%
R8303	0662057A59	2k7 1/16W 5%
R8304	0662057A63	3k9 1/16W 5%
R8305	0662057A73	10k 1/16W 5%
R8306	0662057A29	150 1/16W 5%
R8307	0662057A25	100 1/16W 5%
R8308	0662057A29	150 1/16W 5%
R8309	0662057A97	100k 1/16W
R8310	0662057A01	10 1/16W 5%
R8317	0662057A35	270 1/16W 5%
R8318	0662057A35	270 1/16W 5%
R8319	0662057A23	82 1/16W 5%
R8320	0662057C01	0 1/10W 5%
R8401	0662057A18	51 1/16W 5%
T8401	2505515V03	XFMR JEDI MIXER SMD 4:1
T8402	2505515V04	XMFR MIXER 5:1



300-345MHz RX-IF Schematic Diagram

300-345MHz 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 X7R
C5204	2113743A19	100nF 16V X7R
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	47nF 16V
C5227	2311049J11	TANT CP 4.7uF 10% 16V
C5228	2113743K15	100nF 16V
C5229	2113741F41	4.7nF 50V
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
C5239	2113740F44	51pF 5% 50V

Circuit Ref	Motorola Part No.	Description
D5201	4880154K03	Dual Schottky SOT23
FL5201	9180098D04	Filter CER 4-EL 455kHz
FL5202	9180097D04	Filter CER 6-EL 455kHz
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 0662057A65	10k 1/16W 5% (12.5kHz) 4k7 1/16W 5% (20/25kHz)
R5221	0662057B02	150k 1/16W
R5222	0662057A93	68k 1/16W 5%
R5223	0662057A69	6k8 1/16W 5%
R5224	0662057A76	13k 1/16W 5%
R5225	0662057A25 0662057A57	100 1/16W 5% (12.5kHz) 2k2 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 80dB
Y5211	4802653Y01	XTAL OSC 44.645MHZ