



DMR & Analog Portable Radio Transceiver

Service Manual



UHF/VHF Transceiver
TSD-4424/4124

This device complies with part 15 of FCC rules

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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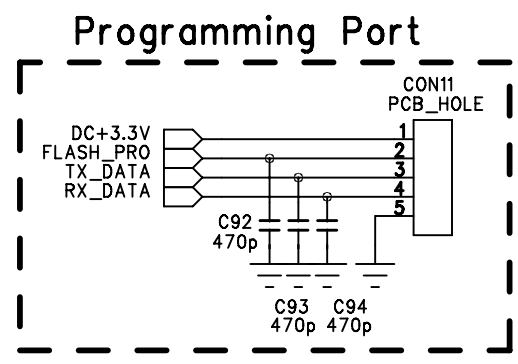
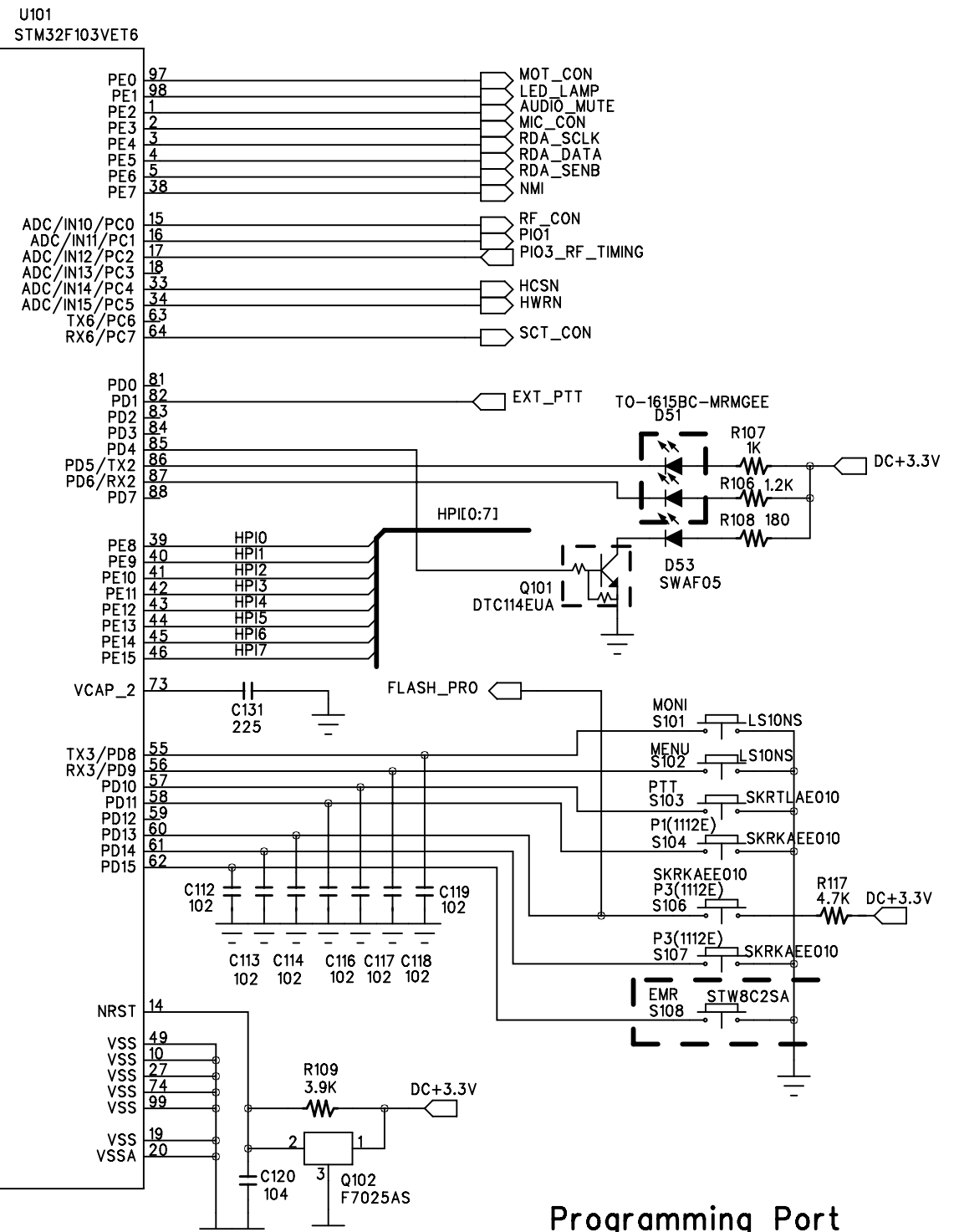
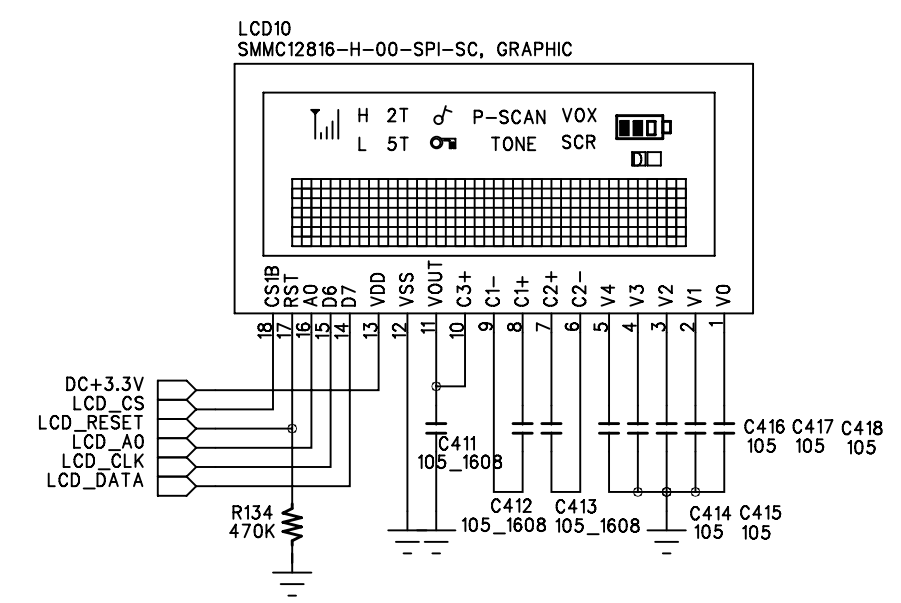
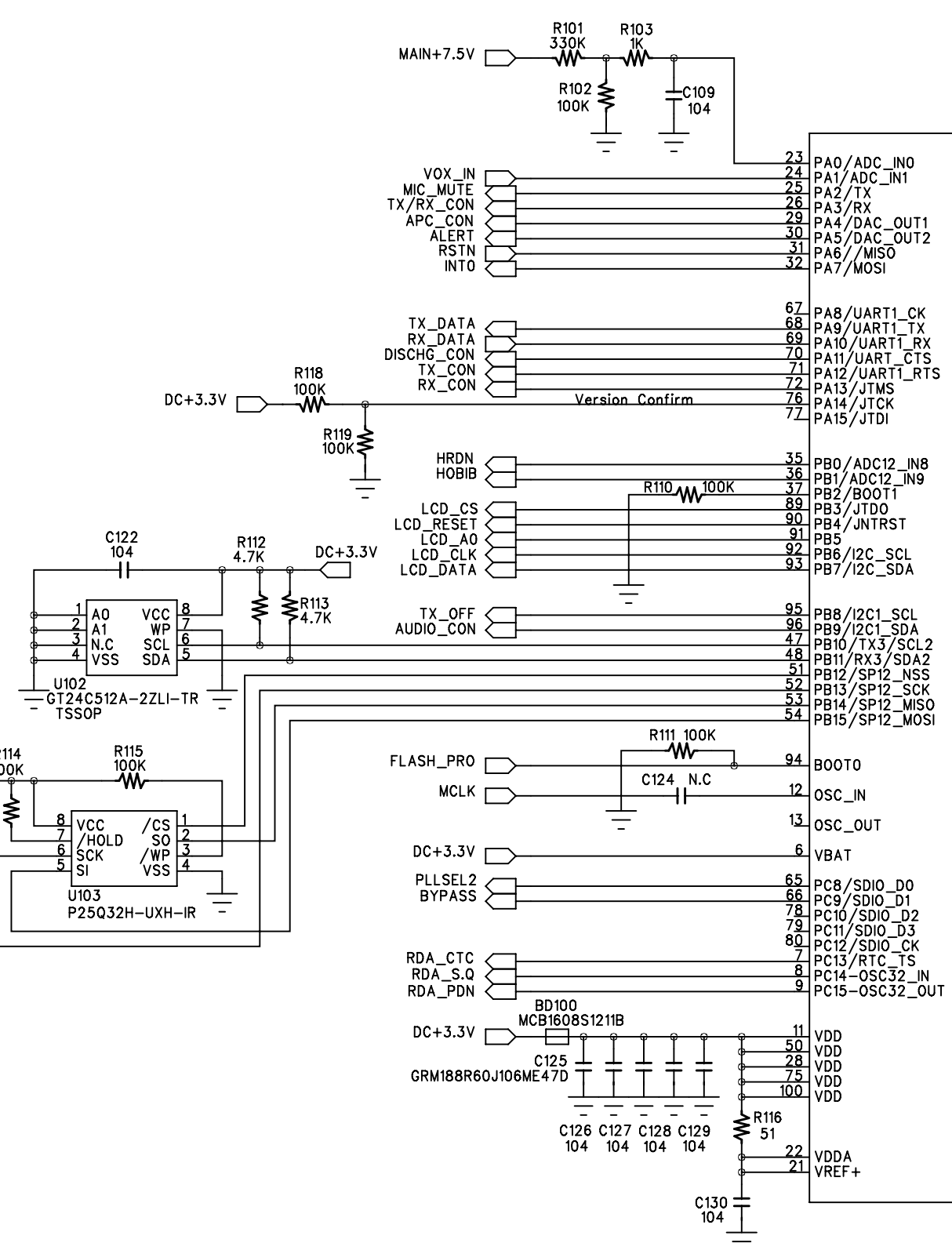
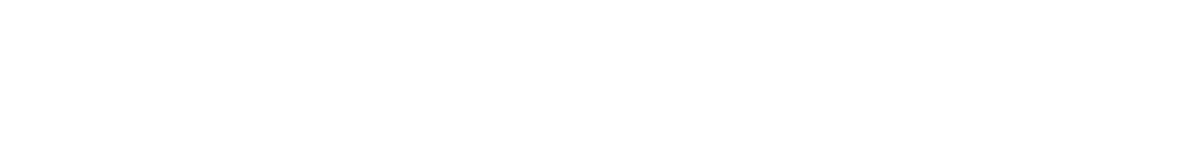
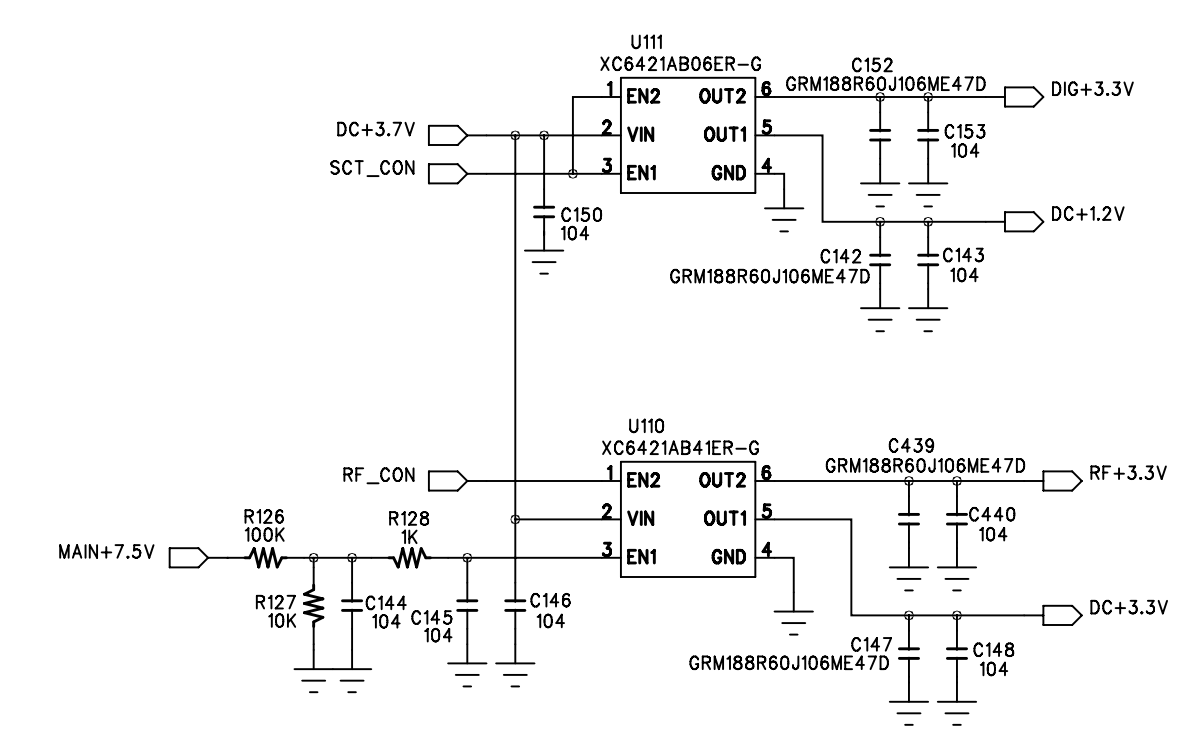
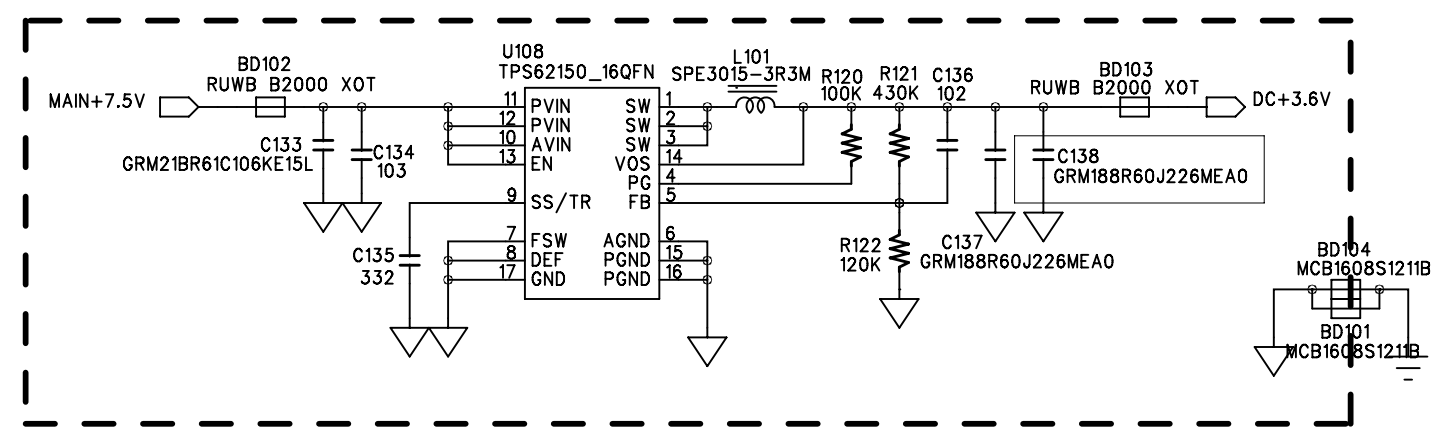
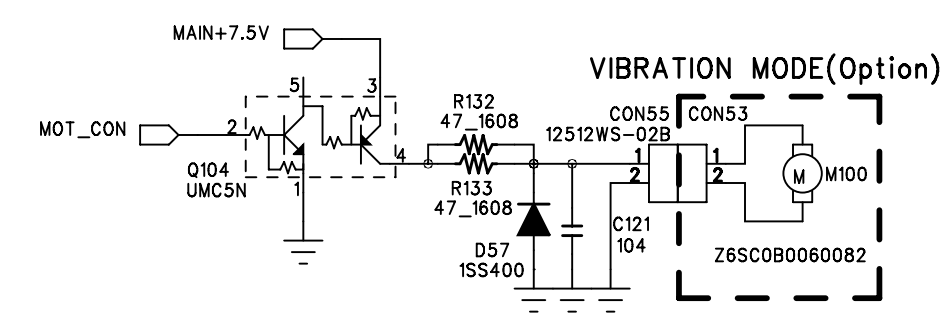
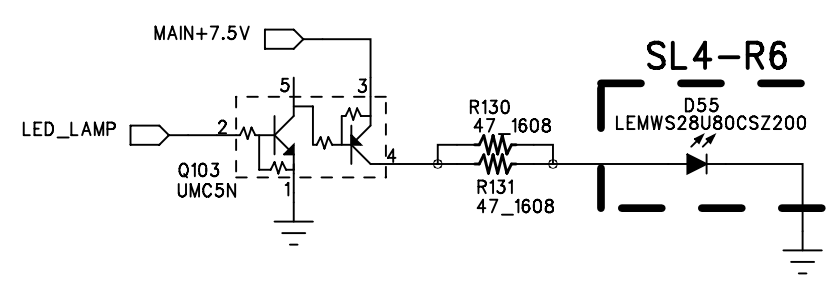
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BOOT1	BOOT0	Operation
X	0	Internal Flash
0	1	System Memory
1	1	Internal SRAM

TITLE :	RDA4R-R6 AF CIRCUIT	FILE :	RDA4R-R6_AF
MODEL	RDA4R-R6	DRAFT	
UNIT NAME	RDA4R-R6	DESIGN	
DWG NO.	PP 12LOT.	CHECK	
DATE	2019. 04. 24	APPR	H. D. KIM
		SHEET	1 OF 1

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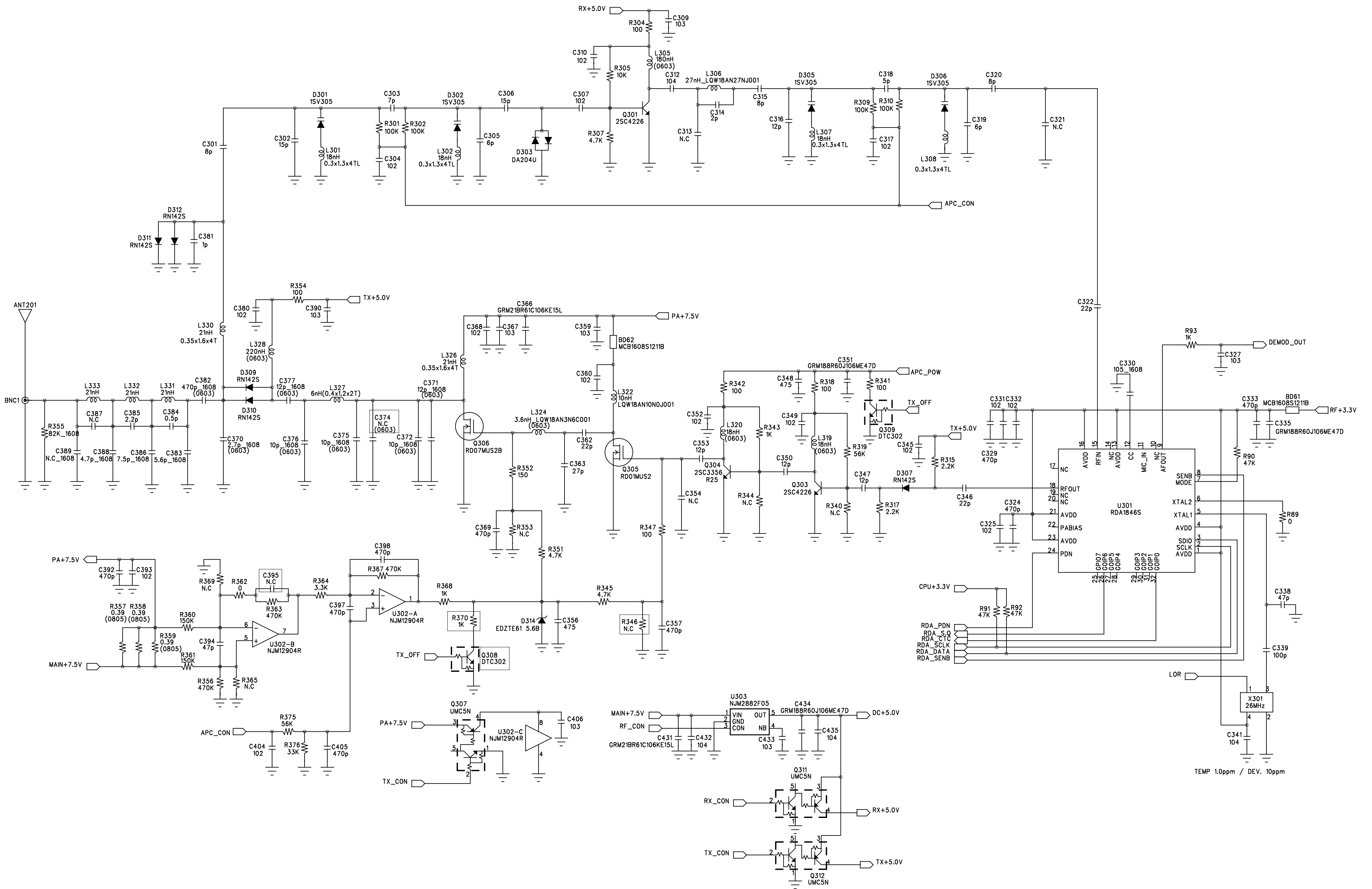
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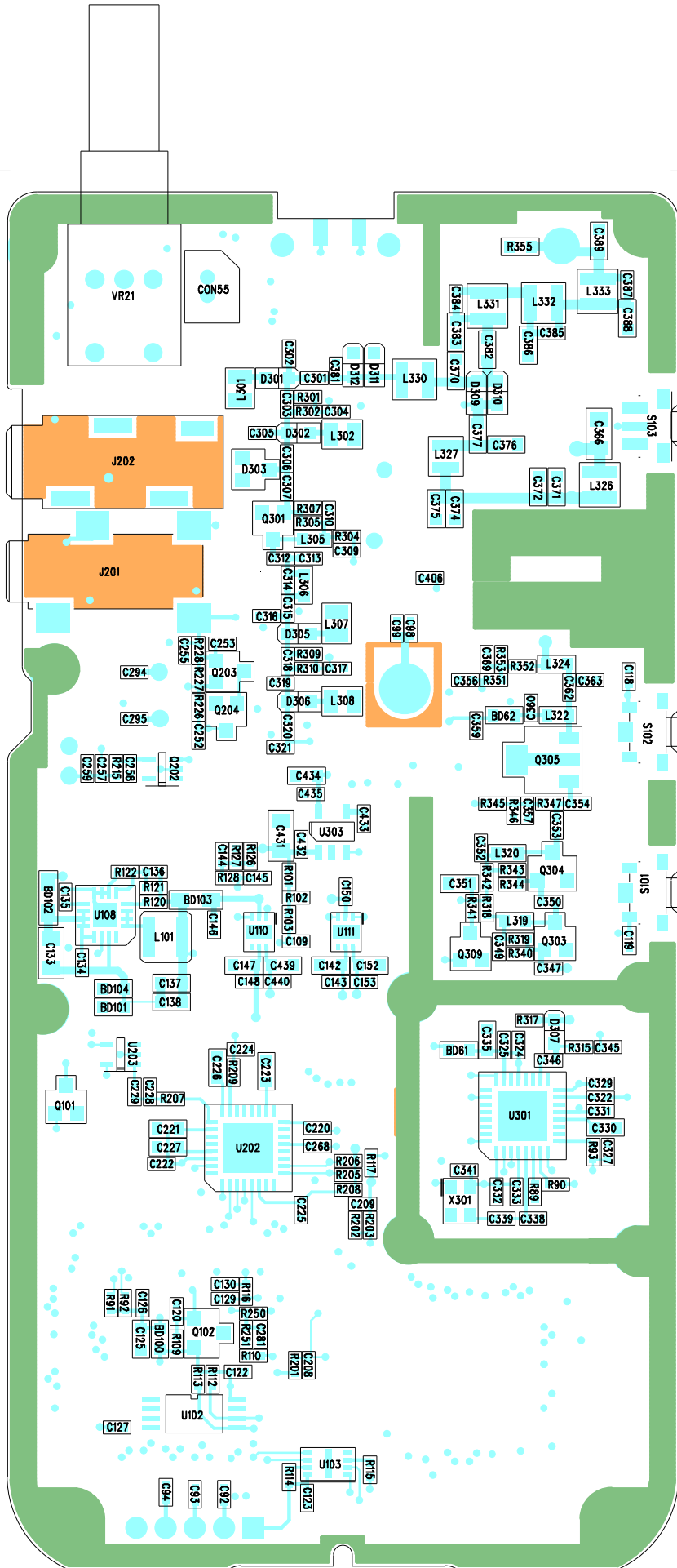
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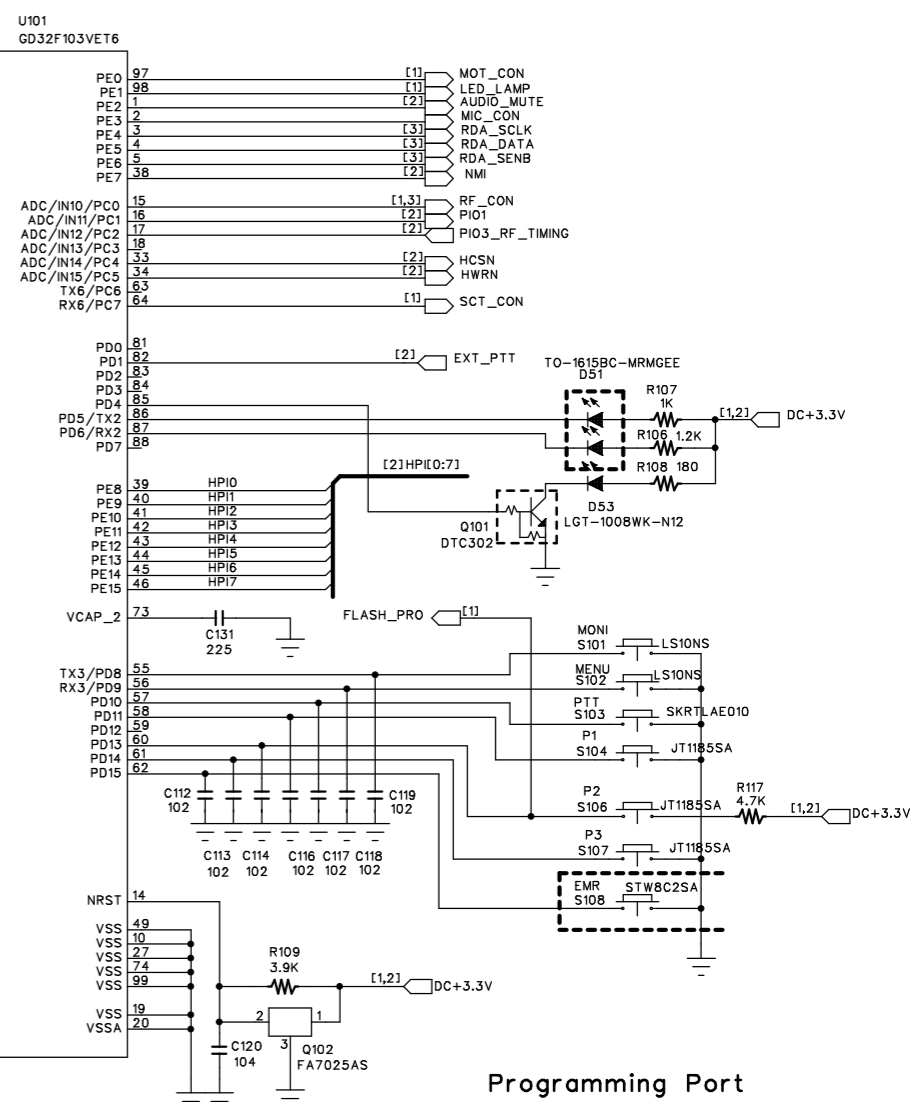
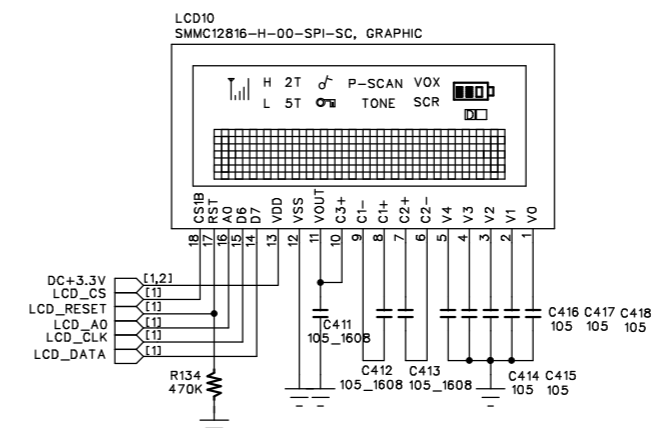
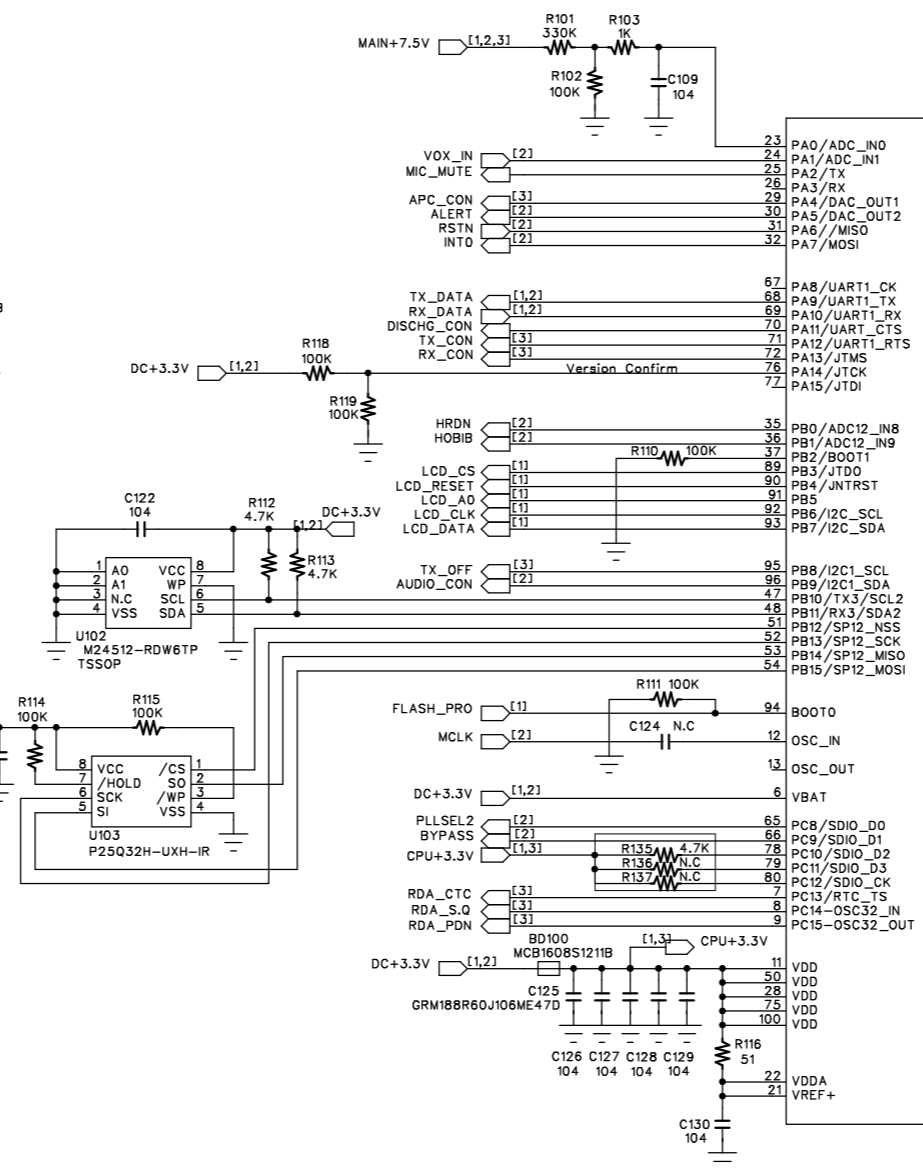
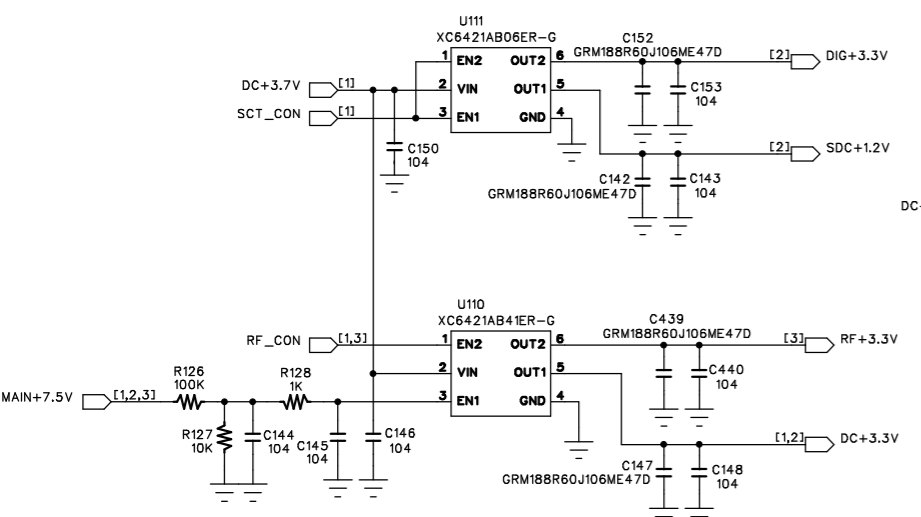
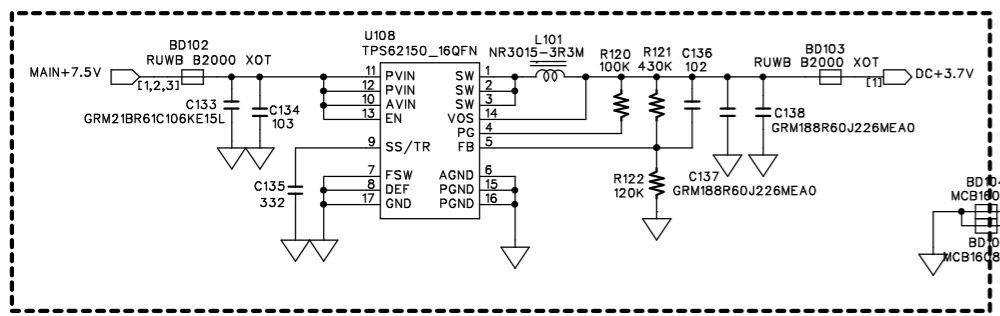
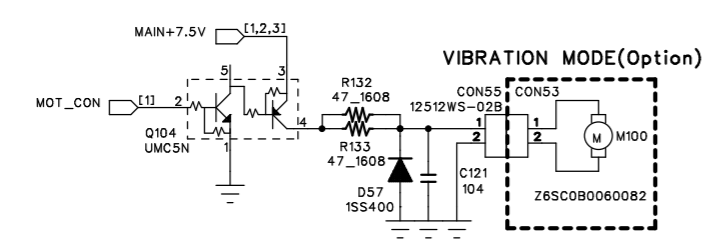
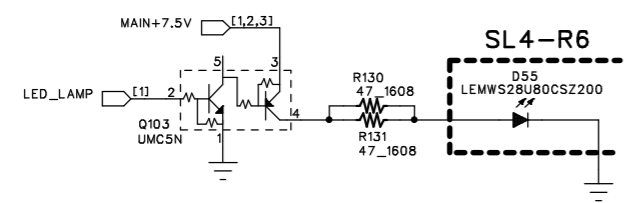
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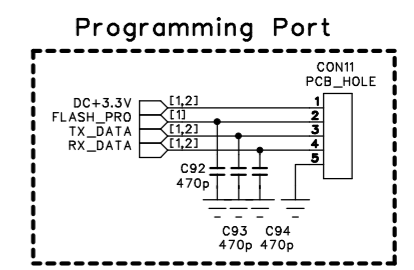


Part Number	Part Type	Description	Qty	Reference
1-001-001-00	RES, MG, SMD	1005, 1%(F), 1/16W, 0Ω	2	R89 R362
1-001-003-00	RES, MG, SMD	1005, 1%(F), 1/16W, 4.7Ω	2	R243 R244
1-001-006-00	RES, MG, SMD	1005, 1%(F), 1/16W, 22Ω	1	R208
1-001-011-00	RES, MG, SMD	1005, 1%(F), 1/16W, 51Ω	1	R116
1-001-014-00	RES, MG, SMD	1005, 1%(F), 1/16W, 100Ω	7	R204 R304 R318 R341 R342 R347 R354
1-001-016-00	RES, MG, SMD	1005, 1%(F), 1/16W, 150Ω	1	R352
1-001-017-00	RES, MG, SMD	1005, 1%(F), 1/16W, 180Ω	1	R108
1-001-019-00	RES, MG, SMD	1005, 1%(F), 1/16W, 220Ω	2	R214 R245
1-001-029-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1KΩ	14	R93 R103 R107 R128 R201 R207 R209 R239 R242 R319 R343 R344 R368 R370
1-001-030-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1.2KΩ	1	R106
1-001-031-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1.5KΩ	1	R215
1-001-033-00	RES, MG, SMD	1005, 1%(F), 1/16W, 2.2KΩ	2	R213 R317
1-001-037-00	RES, MG, SMD	1005, 1%(F), 1/16W, 3.3KΩ	1	R364
1-001-039-00	RES, MG, SMD	1005, 1%(F), 1/16W, 3.9KΩ	1	R109
1-001-041-00	RES, MG, SMD	1005, 1%(F), 1/16W, 4.7KΩ	12	R112 R113 R117 R205 R206 R228 R232 R307 R345 R351 R135 R136
1-001-043-00	RES, MG, SMD	1005, 1%(F), 1/16W, 5.6KΩ	1	R238
1-001-047-00	RES, MG, SMD	1005, 1%(F), 1/16W, 9.1KΩ	1	R216
1-001-048-00	RES, MG, SMD	1005, 1%(F), 1/16W, 10KΩ	3	R127 R240 R305
1-001-052-00	RES, MG, SMD	1005, 1%(F), 1/16W, 15KΩ	1	R253
1-001-054-00	RES, MG, SMD	1005, 1%(F), 1/16W, 20KΩ	1	R123
1-001-059-00	RES, MG, SMD	1005, 1%(F), 1/16W, 33KΩ	1	R376
1-001-063-00	RES, MG, SMD	1005, 1%(F), 1/16W, 47KΩ	7	R90 R91 R92 R225 R226 R250 R353
1-001-065-00	RES, MG, SMD	1005, 1%(F), 1/16W, 56KΩ	1	R375
1-001-066-00	RES, MG, SMD	1005, 1%(F), 1/16W, 68KΩ	1	R227
1-001-070-00	RES, MG, SMD	1005, 1%(F), 1/16W, 100KΩ	19	R102 R110 R111 R114 R115 R120 R126 R202 R203 R219 R220 R221 R231 R301 R302 R309 R310 R121 R122
1-001-072-00	RES, MG, SMD	1005, 1%(F), 1/16W, 120KΩ	0	
1-001-075-00	RES, MG, SMD	1005, 1%(F), 1/16W, 150KΩ	3	R360 R361 R252
1-001-082-00	RES, MG, SMD	1005, 1%(F), 1/16W, 330KΩ	3	R101 R223 R241
1-001-085-00	RES, MG, SMD	1005, 1%(F), 1/16W, 430KΩ	0	
1-001-086-00	RES, MG, SMD	1005, 1%(F), 1/16W, 470KΩ	4	R134 R356 R363 R367
1-001-087-00	RES, MG, SMD	1005, 1%(F), 1/16W, 560KΩ	0	
1-001-100-00	RES, MG, SMD	1608, 1%(F), 1/10W, 47Ω	4	R130 R131 R132 R133
1-001-152-00	RES, MG, SMD	2012, 1%(F), 1/4W, 0.39Ω	3	R357 R358 R359
1-001-170-00	RES, MG, SMD	1608, 1%(F), 1/10W, 82KΩ	1	R355
1-002-002-00	CAP, CER, SMD	GRM1555C1HR50CA01D (0.5pF, 1005, 50V)	1	C384
1-002-004-00	CAP, CER, SMD	GRM1555C1H1R0CA01D (1pF, 1005, 50V)	1	C381
1-002-008-00	CAP, CER, SMD	GRM1555C1H2R0CA01D (2pF, 1005, 50V)	1	C314
1-002-009-00	CAP, CER, SMD	GRM1555C1H2R2CA01D (2.2pF, 1005, 50V)	1	C385
1-002-018-00	CAP, CER, SMD	GRM1555C1H5R0CA01D (5pF, 1005, 50V)	1	C318
1-002-020-00	CAP, CER, SMD	GRM1555C1H6R0CA01D (6pF, 1005, 50V)	2	C305 C319
1-002-023-00	CAP, CER, SMD	GRM1555C1H7R0CA01D (7pF, 1005, 50V)	1	C303
1-002-025-00	CAP, CER, SMD	GRM1555C1H8R0CA01D (8pF, 1005, 50V)	2	C301 C315
1-002-029-00	CAP, CER, SMD	GRM1555C1H120JA01D (12pF, 1005, 50V)	4	C316 C347 C350 C353
1-002-032-00	CAP, CER, SMD	GRM1555C1H150JA01D (15pF, 1005, 50V)	2	C302 C306
1-002-036-00	CAP, CER, SMD	GRM1555C1H220JA01D (22pF, 1005, 50V)	5	C273 C320 C322 C346 C362
1-002-038-00	CAP, CER, SMD	GRM1555C1H270JA01D (27pF, 1005, 50V)	1	C363
1-002-044-00	CAP, CER, SMD	GRM1555C1H470JA01D (47pF, 1005, 50V)	3	C338 C394 R365
1-002-051-00	CAP, CER, SMD	GRM1555C1H101JA01D (100pF, 1005, 50V)	1	C339
1-002-053-00	CAP, CER, SMD	GRM155R71H221KA01D (220pF, 1005, 50V)	1	C285
1-002-057-00	CAP, CER, SMD	GRM155R71H471KA01D (470pF, 1005, 50V)	20	C92 C93 C94 C99 C254 C255 C256 C259 C293 C294 C295 C324 C329 C333 C369 C392 C397 C398 C405
1-002-059-00	CAP, CER, SMD	GRM155R71H102KA01D (102, 1005, 50V)	28	C98 C112 C113 C114 C116 C117 C118 C119 C252 C253 C281 C289 C296 C304 C307 C310 C317 C325 C331 C332 C345 C349 C352 C360 C368 C380 C393 C404
1-002-062-00	CAP, CER, SMD	GRM155R71H332KA01D (332, 1005, 50V)	1	C135
1-002-067-00	CAP, CER, SMD	GRM155R71E103KA01D (103, 1005, 25V)	14	C209 C210 C211 C212 C214 C215 C216 C309 C327 C359 C367 C390 C406 C433
1-002-068-00	CAP, CER, SMD	GRM155R71E153KA61D (153, 1005, 50V)	1	C224
1-002-071-00	CAP, CER, SMD	GRM155R71A333KA01D (333, 1005, 10V)	1	C269
1-002-072-00	CAP, CER, SMD	GRM155R71A393KA01D (393, 1005, 10V)	2	C280 C283
1-002-073-00	CAP, CER, SMD	GRM155R71C473KA01D (473, 1005, 16V)	1	C228
1-002-076-00	CAP, CER, SMD	GRM155R71C104KA88D (104, 1005, 16V)	45	C109 C120 C121 C122 C123 C126 C127 C128 C129 C130 C143 C144 C145 C146 C148 C150 C153 C202 C204 C205 C206 C207 C208 C213 C218 C222 C225 C229 C245 C257 C258 C268 C271 C274 C282 C286 C312 C341 C432 C435 C440 C134 C136 C167
1-002-077-00	CAP, CER, SMD	GRM155R61A224KE19D (224, 1005, 10V)	2	C291 C292
1-002-080-00	CAP, CER, SMD	GRM155R60J105KE19D (105, 1005, 6.3V)	5	C414 C415 C416 C417 C418
1-002-087-00	CAP, CER, SMD	GRM1885C1H2R7CA01D (2.7pF, 1608, 50V)	1	C370
1-002-092-00	CAP, CER, SMD	GRM1885C1H4R7CZ01D (4.7pF, 1608, 50V)	1	C388
1-002-095-00	CAP, CER, SMD	GRM1885C1H5R6CA01D (5.6pF, 1608, 50V)	1	C383
1-002-099-00	CAP, CER, SMD	GRM1885C1H7R5CZ01D (7.5pF, 1608, 50V)	1	C386
1-002-102-00	CAP, CER, SMD	GRM1885C1H100JA01D (10pF, 1608, 50V)	3	C374 C375 C376
1-002-104-00	CAP, CER, SMD	GRM1885C1H120JA01D (12pF, 1608, 50V)	2	C371 C377
1-002-126-00	CAP, CER, SMD	GRM188R71H471KA01D (470pF, 1608, 50V)	1	C382
1-002-131-00	CAP, CER, SMD	CL10A105K08NNNC (105, 1608, 16V)	4	C330 C411 C412 C413
1-002-217-00	CAP, CER, SMD	GRM155R61A225KE95D (225, 1005, 10V)	1	C131
1-002-230-00	CAP, CER, SMD	GRM155R60J475ME47 (475, 1005, 6.3V, 20%)	4	C220 C284 C348 C356
1-002-232-00	CAP, CER, SMD	GRM188R60J226MEA0D (226, 1608, 6.3V)	4	C137 C138 C247 C351
1-002-234-00	CAP, CER, SMD	GRM188R60J106ME47D (106pF, 1608, 6.3V)	14	C125 C142 C147 C152 C201 C221 C223 C226 C227 C246 C250 C335 C434 C439
1-002-235-00	CAP, CER, SMD	GRM21BR61C106KE15L (10 uF, 2012, 16V)	4	C133 C287 C366 C431
1-003-001-02	TR, RF, SMD	2SC3356 R25 (ISC)	1	Q304
1-003-003-00	TR, RF, SMD	2SC4226-T1-A(R25)	2	Q301 Q303
1-003-014-00	TR, POWER FET, SMD	RD01MUS2B-T513	1	Q305
1-003-015-00	TR, POWER FET, SMD	RD07MUS2B-T512	1	Q306
1-003-019-00	TR, GENERAL, SMD	UMT3906(T106)	1	Q203
1-003-029-00	TR, BRT, SMD	UMCSNTR	5	Q103 Q104 Q307 Q311 Q312
1-003-041-00	TR, BRT, SMD	DTC302	4	Q101 Q204 Q308 Q309
1-004-005-01	DIODE, VVC, SMD	1SV305L3F	4	D301 D302 D305 D306
1-004-012-00	DIODE, PIN, SMD	RN142S(Te61)	5	D307 D309 D310 D311 D312
1-004-018-00	DIODE, SWITCH, SMD	1SS400(Te61)	1	D57
1-004-019-00	DIODE, SWITCH, SMD	DA204U	1	D303
1-004-024-00	DIODE, ZENER, SMD	EDZTE61 5.6B	1	D314
1-005-018-00	IC, LINER, OPAMP, SMD	NUM12904R(Te1)	1	U302
1-005-019-00	IC, LINER, OPAMP, SMD	NUM2107F3(Te1)	1	U208

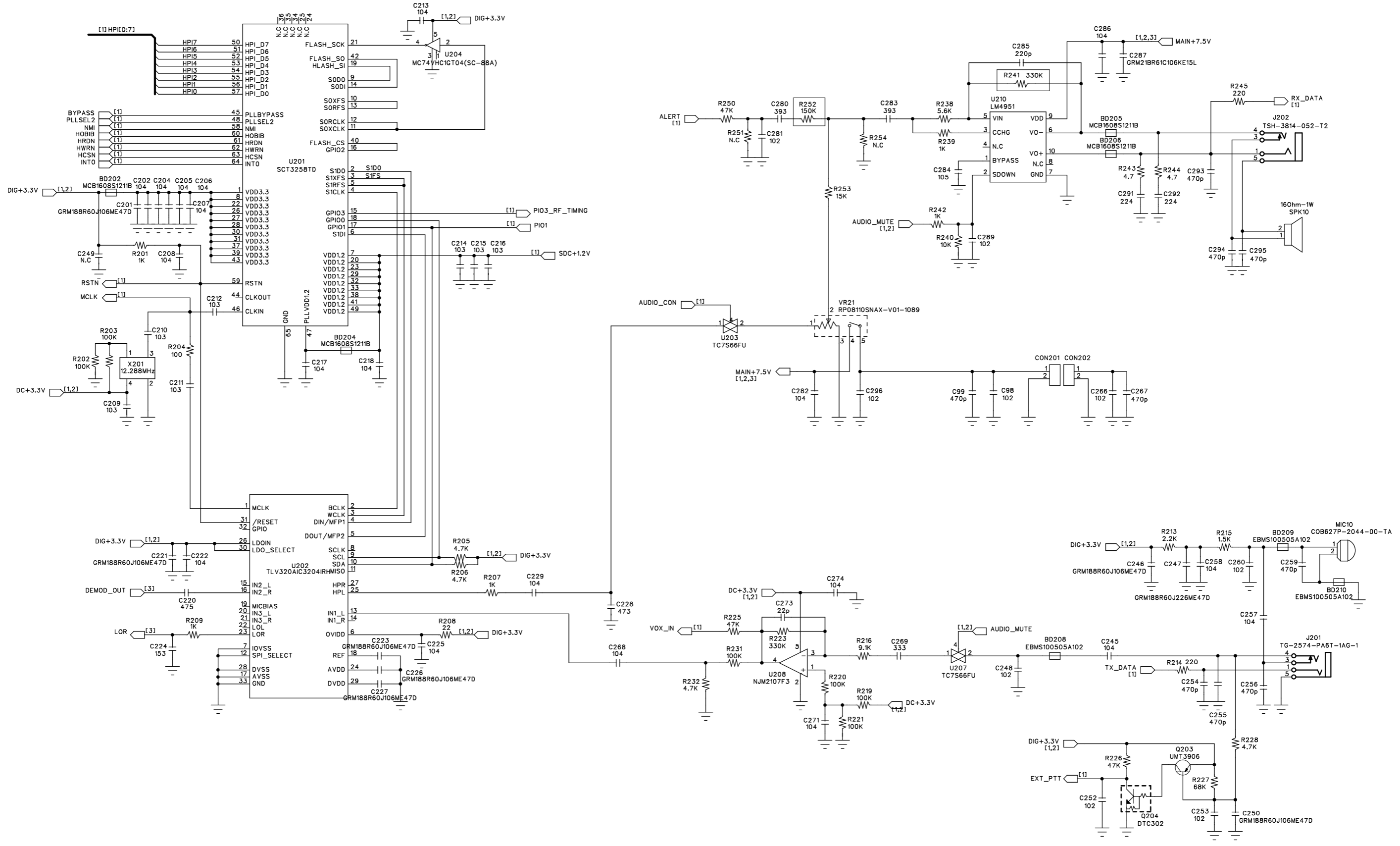
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1-005-052-00	IC, LINER, RFIC, SMD	AT1846S	1	U301
1-005-059-00	IC, LINER, ANALOG SWITCH, SMD	TC7S68FU(T5L,F,T)	2	U203 U207
1-005-062-01	IC, LINER, VOLTAGE DETECTOR, SMD	FA7025AS,SOT-23	1	Q102
1-005-085-00	IC, LINER, ASP, SMD	SCT3258TD(V2-01-07PW)	1	U201
1-005-092-00	IC, LINER, DC/DC, SMD	SGM61220XTN6G/TR	1	U108
1-005-115-00	IC, LINER, DUAL LDO, SMD	XC6421AB41ER-G, USP-6C (3.3V,3.3V)	1	U110
1-005-116-00	IC, LINER, DUAL LDO, SMD	XC6421AB06ER-G, USP-6C (1.2V,3.3V)	1	U111
1-005-134-00	IC, LINER, AUDIO AMP, SMD	LM4951SD/NOPB(1.8W Class-AB), WSON-10	1	U210
1-006-007-00	IC, LOGIC, INVERTER, SMD	MC74VHC1GT04 DFT1G /M74VHC1GT04 DFT1G	1	U204
1-006-009-00	IC, LOGIC, CODEC, SMD	TLV320AIC3204IRHBR	1	U202
1-006-011-01	IC, LOGIC, MCU, SMD	GD32F103VET6	1	U101
1-007-010-01	IC, MEM, EEPROM, SMD	M24512-RDW6TP (TSSOP, 8pin)	1	U102
1-007-015-00	IC, MEM, FLASH, SMD	P25Q32HUXU (8-Land USON(3x2x0.55mm))	1	U103
1-008-001-00	IND, AIR, SMD	0.4x1.2x2TL (6.0nH)	1	L327
1-008-013-00	IND, AIR, SMD	0.30x1.3x4TL (18nH)	4	L301 L302 L307 L308
1-008-016-00	IND, AIR, SMD	0.35x1.6x4TL (21nH)	5	L326 L330 L331 L332 L333
1-008-053-00	IND, FIXED, SMD	LQW18AN3N6C00 (1608, 3.6nH)	1	L324
1-008-057-00	IND, FIXED, SMD	LQW18AN27N00D (1608, 27nH)	1	L306
1-008-096-00	IND, CER, SMD	HI-1608-10NJT1S (1608, 10nH)	1	L319
1-008-101-00	IND, CER, SMD	HI-1608-18NJT (1608, 18nH)	1	L320
1-008-121-00	IND, CER, SMD	HI-1608-R18JT (1608, 180nH)	1	L305
1-008-123-00	IND, CER, SMD	HI-1608-R22JT (1608, 220nH)	1	L328
1-008-138-00	IND, BEAD, SMD	MCB1608S121B	8	BD61 BD62 BD100 BD202 BD204 BD205 BD206 BD210
1-008-138-10	IND, BEAD, SMD	EBMS100505A102 0.5A	2	BD208 BD209
1-008-147-00	IND, FIXED, SMD	LQW18AN10NG00D (1608, 10nH, 2%)	1	L322
1-008-154-00	IND, POWER, SMD	NR3015-3R3M (3.3uHz±20%)	1	L101
1-009-012-01	X-TAL, TCXO, SMD	SG-310SCF 12.288ML	1	X201
1-009-020-00	X-TAL, VCTCXO, SMD	26MHz_DSA321SDN, 1XTV26000MCA (18-24ppm,400mhz), 3225size	1	X301A
1-011-014-00	DISPLAY, LED, SMD	TO-1615BC-MRMGEE(11-22SDRYGC)	1	D51
1-011-016-00	DISPLAY, LED, SMD	SWAF05(대체품:LG1-1008WK-N12)	1	D53
1-011-034-00	DISPLAY, LCD,	SMMC12848-C-00	1	LCD10
2-003-001-00	MIC, CONDENSOR, DIP	COB627P-2044-00-TA	1	MIC10
2-005-020-00	CONN, JACK, DIP, EARJACK	TSH-9814-052-T2	1	J202
2-006-007-00	JACK, PHONE, SMD	TG-2574-PA6T-1AG-1	1	J201
2-008-009-00	SWITCH, TACT, SMD	SKRTLAE010	1	S103
2-008-010-01	UP,ENTER,DOWN SWITCH, TACT, SMD	JT1185SAEM	3	S104 S106 S107
2-008-012-00	SWITCH, TACT, SMD	LS10N2	2	S101 S102
2-012-018-00	VR, DIP	RP08110SNAX-V01-1089-AEC15C6.3-A203 (XL)	1	VR21
2-004-123-10	PCB, MULTIL-6, 1.2T	RDA40-R10, FR4, Gold, 6L (4pcs)	1	PCB



BOOT1	BOOT0	Operation
X	0	Internal Flash
0	1	System Memory
1	1	Internal SRAM



TITLE :	RDA10-R4	FILE :	RDA10-R4
MODEL	RDA10-R4	DRAFT	
UNIT NAME	RDA10-R4	DESIGN	
DWG NO.	PP	CHECK	
DATE	2021.10.25	APPR	H. D. KIM
		SHEET	1 OF 1



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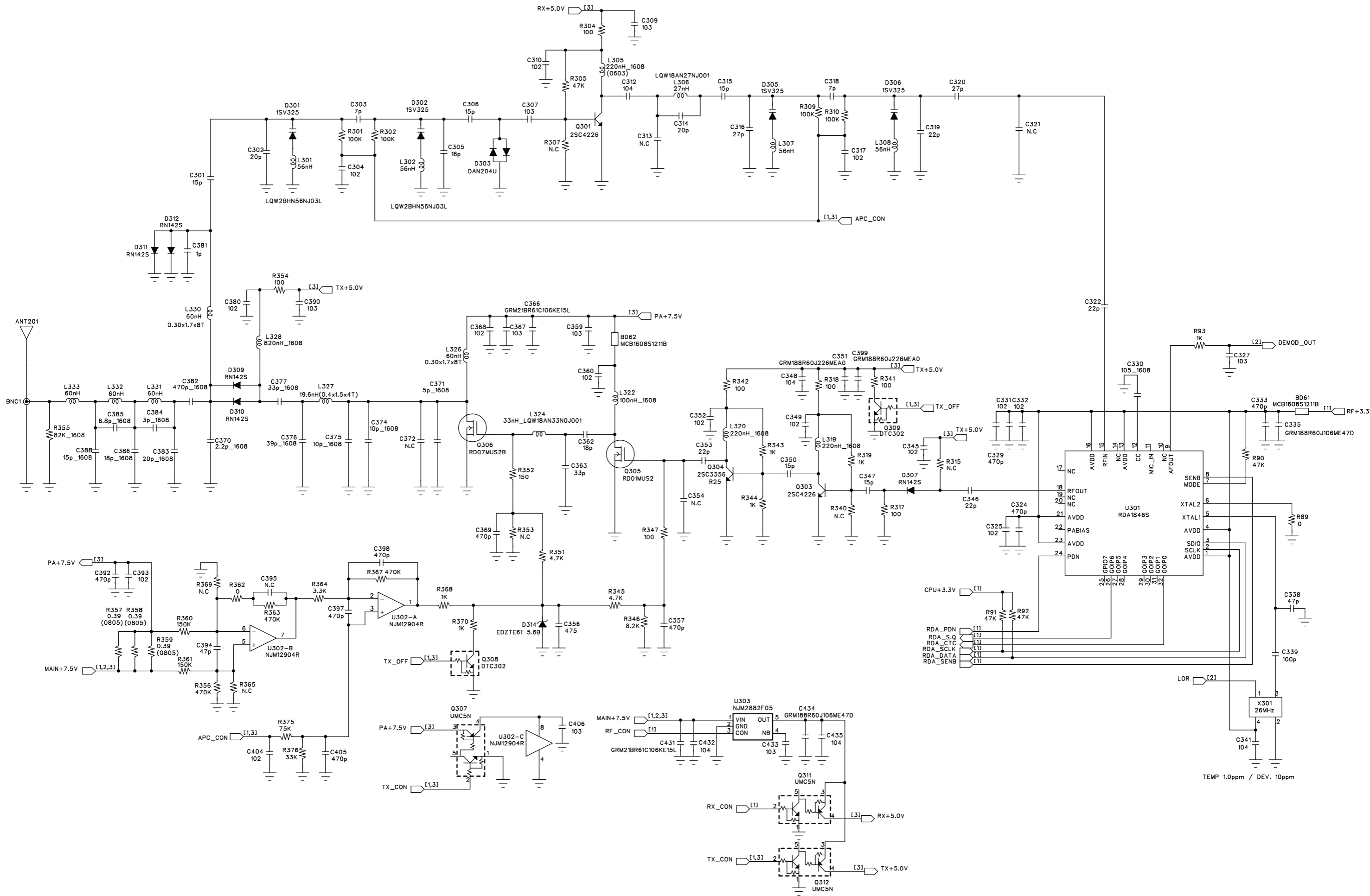
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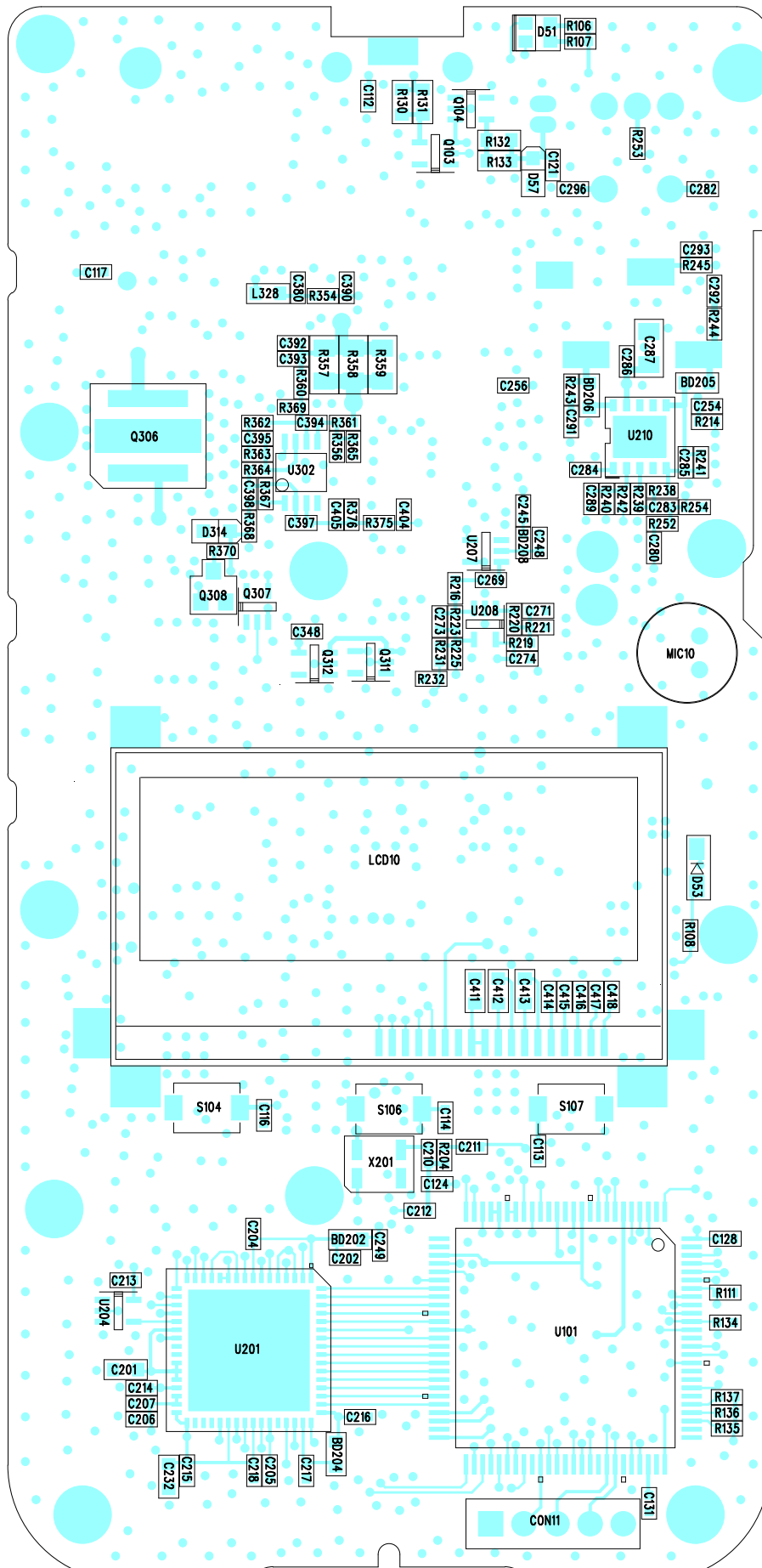
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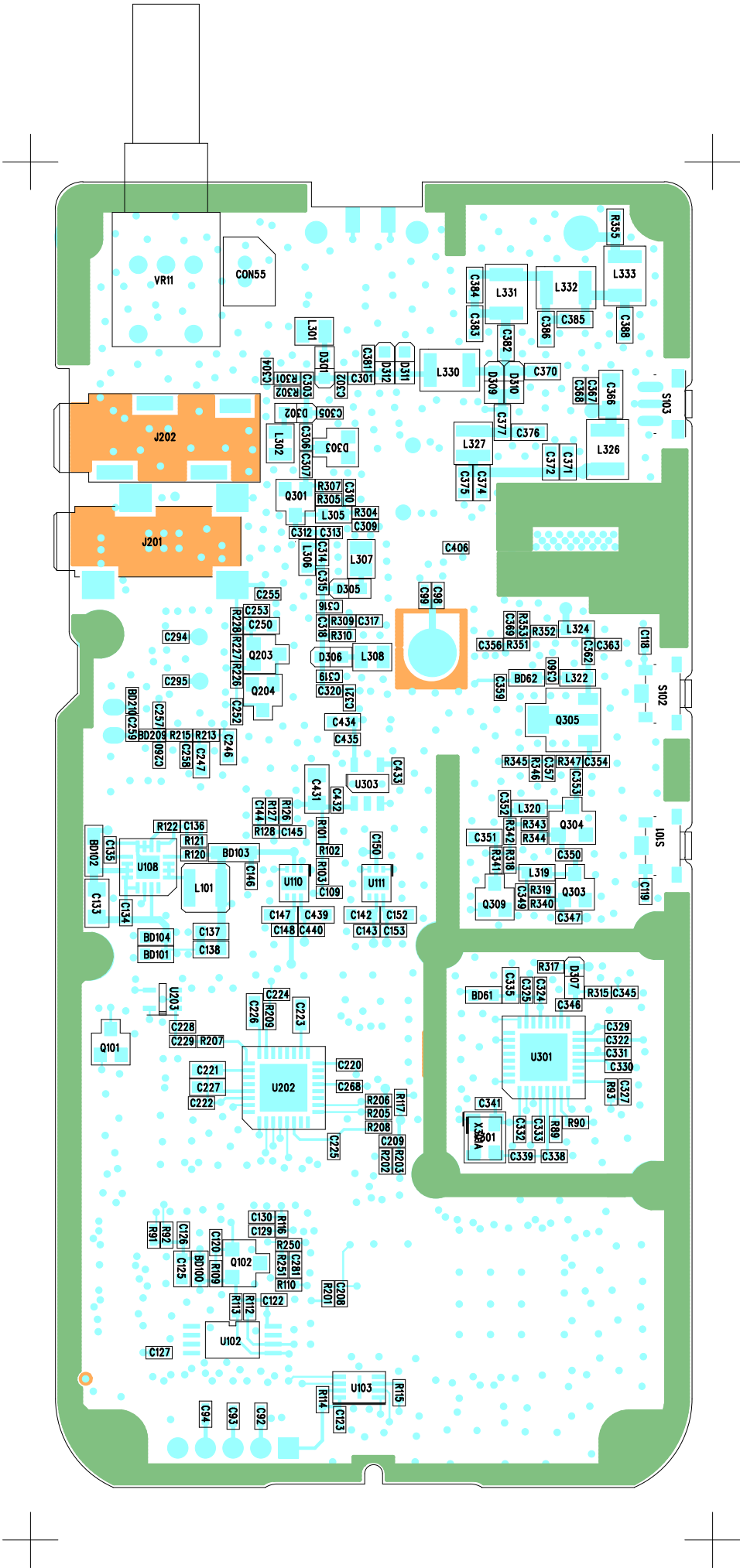
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TEMP 1.0ppm / DEV. 10ppm





Part Number	Part Type	Description	Qty	Reference
1-001-001-00	RES, MG, SMD	1005, 1%(F), 1/16W, 0Ω	2	R89 R362
1-001-003-00	RES, MG, SMD	1005, 1%(F), 1/16W, 4.7Ω	2	R243 R244
1-001-006-00	RES, MG, SMD	1005, 1%(F), 1/16W, 22Ω	1	R208
1-001-011-00	RES, MG, SMD	1005, 1%(F), 1/16W, 51Ω	1	R116
1-001-014-00	RES, MG, SMD	1005, 1%(F), 1/16W, 100Ω	8	R204 R304 R317 R318 R341 R342 R347 R354
1-001-016-00	RES, MG, SMD	1005, 1%(F), 1/16W, 150Ω	1	R352
1-001-017-00	RES, MG, SMD	1005, 1%(F), 1/16W, 180Ω	1	R108
1-001-019-00	RES, MG, SMD	1005, 1%(F), 1/16W, 220Ω	2	R245 R214
1-001-029-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1KΩ	14	R93 R103 R107 R128 R201 R207 R209 R319 R343 R344 R368 R370 R239 R242
1-001-030-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1.2KΩ	1	R106
1-001-031-00	RES, MG, SMD	1005, 1%(F), 1/16W, 1.5KΩ	1	R215
1-001-033-00	RES, MG, SMD	1005, 1%(F), 1/16W, 2.2KΩ	1	R213
1-001-037-00	RES, MG, SMD	1005, 1%(F), 1/16W, 3.3KΩ	1	R364
1-001-039-00	RES, MG, SMD	1005, 1%(F), 1/16W, 3.9KΩ	1	R109
1-001-041-00	RES, MG, SMD	1005, 1%(F), 1/16W, 4.7KΩ	10	R112 R113 R117 R205 R206 R228 R232 R345 R351 R135
1-001-043-00	RES, MG, SMD	1005, 1%(F), 1/16W, 5.6KΩ	1	R238
1-001-046-00	RES, MG, SMD	1005, 1%(F), 1/16W, 8.2KΩ	1	R346
1-001-047-00	RES, MG, SMD	1005, 1%(F), 1/16W, 9.1KΩ	1	R216
1-001-048-00	RES, MG, SMD	1005, 1%(F), 1/16W, 10KΩ	2	R127 R240
1-001-052-00	RES, MG, SMD	1005, 1%(F), 1/16W, 15KΩ	1	R253
1-001-059-00	RES, MG, SMD	1005, 1%(F), 1/16W, 33KΩ	1	R376
1-001-063-00	RES, MG, SMD	1005, 1%(F), 1/16W, 47KΩ	7	R90 R91 R92 R225 R226 R250 R305
1-001-066-00	RES, MG, SMD	1005, 1%(F), 1/16W, 68KΩ	1	R227
1-001-067-00	RES, MG, SMD	1005, 1%(F), 1/16W, 75KΩ	1	R375
1-001-070-00	RES, MG, SMD	1005, 1%(F), 1/16W, 100KΩ	17	R102 R110 R111 R114 R115 R120 R126 R202 R203 R219 R220 R221 R231 R301 R302 R309 R310
1-001-072-00	RES, MG, SMD	1005, 1%(F), 1/16W, 120KΩ	1	R122
1-001-075-00	RES, MG, SMD	1005, 1%(F), 1/16W, 150KΩ	3	R360 R361 R252
1-001-082-00	RES, MG, SMD	1005, 1%(F), 1/16W, 330KΩ	3	R101 R223 R241
1-001-085-00	RES, MG, SMD	1005, 1%(F), 1/16W, 430KΩ	1	R121
1-001-086-00	RES, MG, SMD	1005, 1%(F), 1/16W, 470KΩ	4	R134 R356 R363 R367
1-001-087-00	RES, MG, SMD	1005, 1%(F), 1/16W, 560KΩ	0	
1-001-100-00	RES, MG, SMD	1608, 1%(F), 1/10W, 47Ω	4	R130 R131 R132 R133
1-001-152-00	RES, MG, SMD	2012, 1%(F), 1/4W, 0.39Ω	3	R357 R358 R359
1-001-170-00	RES, MG, SMD	1608, 1%(F), 1/10W, 82KΩ	1	R355
1-002-004-00	CAP, CER, SMD	GRM1555C1H1R0CA01D (1pF, 1005, 50V)	1	C381
1-002-023-00	CAP, CER, SMD	GRM1555C1H7R0DA01D (7pF, 1005, 50V)	2	C303 C318
1-002-032-00	CAP, CER, SMD	GRM1555C1H150JA01D (15pF, 1005, 50V)	5	C301 C306 C315 C347 C350
1-002-033-00	CAP, CER, SMD	GRM1555C1H160JA01D (16pF, 1005, 50V)	1	C305
1-002-034-00	CAP, CER, SMD	GRM1555C1H180JA01D (18pF, 1005, 50V)	1	C362
1-002-035-00	CAP, CER, SMD	GRM1555C1H200JA01D (20pF, 1005, 50V)	2	C302 C314
1-002-036-00	CAP, CER, SMD	GRM1555C1H220JA01D (22pF, 1005, 50V)	5	C319 C322 C346 C353 C273
1-002-038-00	CAP, CER, SMD	GRM1555C1H270JA01D (27pF, 1005, 50V)	2	C316 C320
1-002-040-00	CAP, CER, SMD	GRM1555C1H330JA01D (33pF, 1005, 50V)	1	C363
1-002-044-00	CAP, CER, SMD	GRM1555C1H470JA01D (47pF, 1005, 50V)	2	C338 C394
1-002-051-00	CAP, CER, SMD	GRM1555C1H101JA01D (100pF, 1005, 50V)	1	C339
1-002-053-00	CAP, CER, SMD	GRM155R71H221KA01D (220pF, 1005, 50V)	1	C285
1-002-057-00	CAP, CER, SMD	GRM155R71H471KA01D (470pF, 1005, 50V)	20	C92 C93 C94 C99 C254 C255 C256 C259 C293 C294 C295 C324 C329 C333 C357 C369 C392 C397 C398 C405
1-002-059-00	CAP, CER, SMD	GRM155R71H102KA01D (102, 1005, 50V)	30	C98 C112 C113 C114 C116 C117 C118 C119 C136 C252 C253 C281 C296 C304 C310 C317 C325 C331 C332 C345 C349 C352 C360 C368 C380 C393 C404 C248 C260 C289
1-002-062-00	CAP, CER, SMD	GRM155R71H332KA01D (332, 1005, 50V)	1	C135
1-002-067-00	CAP, CER, SMD	GRM155R71E103KA01D (103, 1005, 25V)	16	C134 C209 C210 C211 C212 C214 C215 C216 C307 C309 C327 C359 C367 C390 C406 C433
1-002-068-00	CAP, CER, SMD	GRM155R71E153KA61D (153, 1005, 50V)	1	C224
1-002-071-00	CAP, CER, SMD	GRM155R71A333KA01D (333, 1005, 10V)	1	C269
1-002-072-00	CAP, CER, SMD	GRM155R71A393KA01D (393, 1005, 10V)	2	C280 C283
1-002-073-00	CAP, CER, SMD	GRM155R71C473KA01D (473, 1005, 16V)	1	C228
1-002-076-00	CAP, CER, SMD	GRM155R71C104KA88D (104, 1005, 16V)	43	C109 C120 C121 C122 C123 C126 C127 C128 C129 C130 C143 C144 C145 C146 C148 C150 C153 C202 C204 C205 C206 C207 C208 C213 C217 C218 C222 C225 C229 C257 C268 C271 C274 C282 C286 C312 C341 C348 C432 C435 C440 C245 C258
1-002-077-00	CAP, CER, SMD	GRM155R61A224KE19D (224, 1005, 10V)	2	C291 C292
1-002-080-00	CAP, CER, SMD	GRM155R60J105KE19D(105, 1005, 6.3V)	7	C414 C415 C416 C417 C418 C284 C330
1-002-088-00	CAP, CER, SMD	GRM1885C1H3R0CA01D (3pF, 1608, 50V)	1	C384
1-002-093-00	CAP, CER, SMD	GRM1885C1H5R0C201D (5pF, 1608, 50V)	1	C371
1-002-097-00	CAP, CER, SMD	GRM1885C1H6R8DA01D (6.8pF, 1608, 50V)	1	C385
1-002-102-00	CAP, CER, SMD	GRM1885C1H100JA01D (10pF, 1608, 50V)	2	C374 C375
1-002-106-00	CAP, CER, SMD	GRM1885C1H150JA01D (15pF, 1608, 50V)	1	C388
1-002-108-00	CAP, CER, SMD	GRM1885C1H180JA01D (18pF, 1608, 50V)	1	C386
1-002-109-00	CAP, CER, SMD	GRM1885C1H200JA01D (20pF, 1608, 50V)	1	C383
1-002-114-00	CAP, CER, SMD	GRM1885C1H330JA01D (33pF, 1608, 50V)	1	C377
1-002-116-00	CAP, CER, SMD	GRM1885C1H390JA01D (39pF, 1608, 50V)	1	C376
1-002-126-00	CAP, CER, SMD	GRM188R71H471KA01D (470pF, 1608, 50V)	1	C382
1-002-131-00	CAP, CER, SMD	GRM188R61C105KA93D/호환 CL10A105K08NNNC (105, 1608, 16V)	3	C411 C412 C413
1-002-198-00	CAP, TANT, SMD	TMCMA1A226MTRF (22uF / 10V, A)	0	
1-002-217-00	CAP, CER, SMD	GRM155R61A225KE95D (225, 1005, 10V)	1	C131
1-002-225-00	CAP, CER, SMD	GRM1885C1H2R2CA01D (2.2pF, 1608, 50V)	1	C370
1-002-230-00	CAP, CER, SMD	GRM155R60J475ME47 (475, 1005, 6.3V, 20%)	2	C220 C356
1-002-232-00	CAP, CER, SMD	GRM188R60J226ME40D (226, 1608, 6.3V)	3	C137 C138 C351
1-002-234-00	CAP, CER, SMD	GRM188R60J106ME47D (10uF, 1608, 6.3V)	15	C125 C142 C147 C152 C201 C221 C223 C226 C227 C335 C434 C439 C246 C247 C250
1-002-235-00	CAP, CER, SMD	GRM21BR61C106KE15L (10uF, 2012, 16V)	4	C133 C287 C366 C431
1-003-001-01	TR, RF, SMD	2SC3356G(UTC), SOT23-5 T/R	1	Q304
1-003-003-00	TR, RF, SMD	2SC4226-T1-A(R25)	2	Q301 Q303
1-003-014-00	TR, POWER FET, SMD	RD01MUS2B-T513	1	Q305
1-003-015-00	TR, POWER FET, SMD	RD07MUS2B-T512	1	Q306

1-003-019-00	TR, GENERAL, SMD	UMT3906(T106)	1	Q203
1-003-029-00	TR, BRT, SMD	UMC5NTR	5	Q103 Q104 Q307 Q311 Q312
1-003-041-00	TR, BRT, SMD	DTC114EUA T106 / (호환 DTC302)	4	Q101 Q204 Q308 Q309
1-004-003-00	DIODE, VVC, SMD	1SV325(TPH3,F)	4	D301 D302 D305 D306
1-004-012-00	DIODE, PIN, SMD	RN142S(TE61)	5	D307 D309 D310 D311 D312
1-004-018-00	DIODE, SWITCH, SMD	1SS400(TE61)	1	D57
1-004-019-00	DIODE, SWITCH, SMD	DA204U	1	D303
1-004-024-00	DIODE, ZENER, SMD	EDZTE61 5.6B	1	D314
1-005-013-00	IC, LINER, AUDIO AMP, SMD	TDA8541T (SO8, SOT96-1)	0	
1-005-018-00	IC, LINER, OPAMP, SMD	NJM12904R(TE1)	1	U302
1-005-019-00	IC, LINER, OPAMP, SMD	NJM2107F3(TE1)	1	U208
1-005-042-00	IC, LINER, LDO, SMD	NJM2882F05(TE1)	1	U303
1-005-052-00	IC, LINER, RFIC, SMD	AT1846S	1	U301
1-005-059-00	IC, LINER, ANALOG SWITCH, SMD	TC7S66FU(TSL,F,T)	2	U203 U207
1-005-062-01	IC, LINER, VOLTAGE DETECTOR, SMD	FA7025AS,SOT-23	1	Q102
1-005-085-00	IC, LINER, ASP, SMD	SCT3258TD(V2-01-07PW)	1	U201
1-005-092-00	IC, LINER, DC/DC, SMD	TPS62150RGT (3mm x 3mm QFN, 16pin)	1	U108
1-005-115-00	IC, LINER, DUAL LDO, SMD	XC6421AB41ER-G, USP-6C (3.3V, 3.3V)	1	U110
1-005-116-00	IC, LINER, DUAL LDO, SMD	XC6421AB06ER-G, USP-6C (1.2V, 3.3V)	1	U111
1-005-134-00	IC, LINER, AUDIO AMP, SMD	LM4951SD/NOBP(1.8W Class-AB), WSON-10	1	U210
1-006-007-00	IC, LOGIC, INVERTER, SMD	MC74VHC1GT04 DFT1G /M74VHC1GT04 DFT1G	1	U204
1-006-009-00	IC, LOGIC, CODEC, SMD	TLV320AIC3204IRHBR	1	U202
1-006-011-01	IC, LOGIC, MCU, SMD	GD32F103VET6	1	U101
1-007-010-01	IC, MEM, EEPROM, SMD	M24512-RDW6TP (TSSOP, 8pin)	1	U102
1-007-015-00	IC, MEM, FLASH, SMD	P25Q32HUXU (8-Land USON(3x2x0.55mm))	1	U103
1-008-014-00	IND, AIR, SMD	0.40x1.5x4TL (19.6nH)	1	L327
1-008-019-00	IND, AIR, SMD	0.30x1.7x8TL (60nH)	5	L326 L330 L331 L332 L333
1-008-043-00	IND, FIXED, SMD	LQW2BHN56NJ03L (2012, 56nH)	4	L301 L302 L307 L308
1-008-057-00	IND, FIXED, SMD	LQW18AN27NJ00D (1608, 27nH)	1	L306
1-008-117-00	IND, CER, SMD	HI-1608-R10JT (1608, 100nH)	1	L322
1-008-123-00	IND, CER, SMD	HI-1608-R22JT (1608, 220nH)	3	L305 L319 L320
1-008-129-00	IND, CER, SMD	0603 CIL 10N R82 (1608, 820nH)	1	L328
1-008-138-00	IND, BEAD, SMD	MCB1608S121IB	9	BD61 BD62 BD100 BD101 BD104 BD202 BD204 BD205 BD206
1-008-138-10	IND, BEAD, SMD	EBMS100505A102 0.5A (1K-BEAD)	3	BD208 BD209 BD210
1-008-139-00	IND, UWB CLOCK CHOCK, SMD	RUWB B2000X0T	2	BD102 BD103
1-008-143-00	IND, FIXED, SMD	LQW18AN33NJ00 (1608, 33nH)	1	L324
1-008-154-00	IND, POWER, SMD	NR3015-3R3M (3.3uH±20%)	1	L101
1-009-012-01	X-TAL, TCXO, SMD	SG-310SCF 12.288ML	1	X201
1-009-020-01	X-TAL, VCTCXO, SMD	26MHz , DSA321SDN, 1XTV26000PCA, (25ppm, 100mhz), 3225size	1	X301A
1-011-014-00	DISPLAY, LED, SMD	TO-1615BC-MRMGEE(11-22SDRYGC)	1	D51
1-011-016-00	DISPLAY, LED, SMD	SWAF05(대체품-LGT-1008WK-N12)	1	D53
1-011-034-00	DISPLAY, LCD	SMMC12848-C-00	1	LCD10
2-003-001-00	MIC, CONDENSOR, DIP	COB627P-2044-00-TA	1	MIC10
2-004-137-04	PCB, MULTIL-6, 1.2T	RDA10-R4, FR4, Gold, 6L (4pcs)	1	PCB
2-005-020-00	CONN, JACK, DIP, EARJACK	TSH-3814-052-T2	1	J202
2-006-007-00	JACK, PHONE, SMD	TG-2574-PA6T-1AG-1	1	J201
2-008-009-00	SWITCH, TACT, SMD	SKRTLAE010	1	S103
2-008-010-01	UP,ENTER,DOWN SWITCH, TACT, SMD	JT1185SAEM	3	S104 S106 S107
2-008-012-00	SWITCH, TACT, SMD	LS10N2	2	S101 S102
2-012-018-00	VR, DIP	RP08110SNAX-V01-1089	1	VR21

No	DWG NO.	DESCRIPTION	SPECIFICATION	QTY	REM
51	3-007-041-10	BATTERY BOTTOM	PC	1	
52	A-007-010-10	BATTERY CORE ASSY	18650+PCM	1	
53	3-007-038-10	BATTERY CASE	PC	1	
54	3-007-039-10	CHARGER CONTACT	C3604BD+Au	3	
55	3-007-040-10	WIRE-BATTERY	TEFLON #27	3	
56	3-007-042-10	SET CONTACT	C3604BD+Au	2	
57	3-007-043-10	FPC		1	
58	3-007-060-10	SET LABEL	0.1t	1	
61	3-007-055-10	BELT CLIP PIN	SUS303	1	
62	3-007-053-10	BELT CLIP HOLDER	PC	1	
63	3-007-054-08	BELT CLIP SPRING	SUS303	1	
64		BELT CLIP	PC	1	

No	DWG NO.	DESCRIPTION	SPECIFICATION	QTY	REM
32	3-007-020-10	POWER PCB	FR4 0.8t	1	
33	3-007-022-10	BATTERY TERMINAL		1	
34	3-007-023-10	BATTERY PACKING	SILICON 60°	1	
35	3-007-019-10	ANT CONNECTOR	C3604BD+TEFLON	1	
36	3-007-017-10	FRAME	ADC12	1	
37	3-007-031-10	MAIN PACKING	SILICON 50°	1	
38	3-007-033-10	REAR CAP	PC	1	
39	3-007-037-10	SET LABEL	0.1t	1	
40	3-007-037-20	SET LABEL	0.1t	1	
41	5-007-020-07	SCREW	TAP 2x7 PH	2	
42	3-007-021-10	PLUS CONTACT	SPTE 0.5t	1	
43		LED LENZ	PC	1	
44	3-007-065-10	MIC PIPE	PC	1	

SYM	Rev.No.	C O N T E N T S	CHK.	APPR.	DATE

No	DWG NO.	DESCRIPTION	SPECIFICATION	QTY	REM
1	A-007-013-10	ANTENNA		1	
2		VOLUME KNOB	PC	1	
3		O-RING	SILICON 60°	1	
4		VOLUME NUT	C3604BD	1	
5	3-007-005-10	PTT BEZEL	PC	1	
6	3-007-004-10	PTT KNOB	PC	1	
7	3-007-003-10	PTT RUBBER	SILICON 60°	1	
8		ANTENNA NUT	C3604BD	1	
9		FRONT CASE	PC	1	
10	3-007-044-10	BRAND LABEL	PC 0.25t	1	
11	3-007-014-10	LOCK SPRING	SUS303	1	
12	3-007-013-10	LOCK KNOB	PC	1	
13		LCD WINDOW	PC	1	
14		UP DOWN KNOB	SILICON 60°	1	
15		UP DOWN PLATE	SUS 0.2t	1	
16	5-007-017-02	SCREW	TAP 1.7x2 CH	6	
17	3-007-006-10	MIC FELT		3	
18	3-007-007-10	EAR CAP	SILICON 60°	1	
19	3-007-009-10	EMERGENCY PLATE	SUS 0.2t	1	
20	3-007-008-08	EMERGENCY KNOB	SILICON 60°	1	
21	3-007-015-10	SPEAKER FELT	0.3t	1	
22	3-007-016-10	SPEAKER		1	
23	3-007-030-10	MIC CAP		1	
24	A-007-008-10	PCB MOUNTED		1	
25	5-007-120-04	SCREW	M2x4 CH	12	
26	3-007-029-10	LCD BRACKET	SPTE0.25t	1	
27	3-007-026-10	LCD	PNL	1	
28	3-007-028-10	ZABRA	SILICON	1	
29	3-007-027-10	LCD HOLDER	PC	1	
30	3-007-025-10	JACK COVER	PC	1	
31				1	

