

TRANSCEIVER ADJUSTMENTS/TUNE-UP PROCEDURE

There are no user accessible adjustments or tuning in this portable cellular transceiver. All necessary adjustments and tuning are performed during manufacture of the product. Any adjustments or tuning after service or repair are done as part of that process as special equipment is required to perform such adjustments.

PARTS LIST

Reference Symbol	Description	P/N and Values
J104	BATTERY CONNECTOR	DL2600J03
J103	DC JACK CONNECTOR	HEC2921
J901	ANTENNA CONNECTOR	MS-147
J301	BUZZER	SMQT-8540P-25C1
J101	CARKIT	AXR51248P
Y202	SLEEP CRYSTAL	SM-26F/32.768kHz
U201	MSM5010FBGA	MSM5010FBGA
U601	RFT3100	RFT3100232BCCP-TR
U503	IFR3000	IFR3000A(BCC)
D170	VARISTOR	AVL14S02200
D110,D111,D116,D117,D123,D176,D181,D182,D183,D184 D185,D190,D191,D192,D193,D194,D195,D340,D341	VARISTOR	AVLC5S02050
U102	INNER CHARGER	SC801IMLTR
U202	FLASH MEMORY	GE28F160C3BC70
U203	SRAM	HY62UF16404D-DF55IDR
FIL901	DUPLEXER	KFF6636A
U701	PLL IC	MB15F73SP
U707	VCTCXO	VC-TCXO-208C3/19.68MHz
FIL502	RX IF SAW	TMXP337
FIL503	FM IF SAW	MSFC12-85-026K1
FIL601	TX RF SAW	FAR-F5CE-836M50-D232
FIL501	RX RF SAW	FAR-F5CE-881M50-D233-U
U501	LNA	RF2369
U502	DOWN MIXER	CMY212
U504	RF SWITCH	SW-437
U602	PA	RF2192
U702	VCO	UCVA4-122A
U705	BUFFER AMP	UPC8151TB
U703	COUPLER	LDC21966M138B-029
U605	OP AMP	TC75S51FU
U706	NOT GATE	TC7SH04FU
U103,U105	REGULATOR	TK71728SCL
U104	REGULATOR	TK71730SCL
U101	REGULATOR	MIC5219-2.8BM5
L516,L701	BEAD(600OHM)	BLM15AG601SN1D

L202,L203,L204,L604,L606,L616,L707	BEAD(1000OHM)	BLM18AG102SN1D
L708	BEAD(1000OHM)	BLM15BD102SN1D
L513,L514,L607,L608,L609	BEAD(2200OHM)	BLM18BD222SN1D
TH701	THERMISTOR	TH05-3T103F/10k Ω
Q320	TRANSISTOR	IMD10A
Q101,Q108,Q109,Q112,Q501	TRANSISTOR	DTC144EE(NPN,SINGLE)
Q601	TRANSISTOR	DTC114TE(NPN,SINGLE)
Q201	TRANSISTOR	DTA144EE(PNP,SINGLE)
U603,U606	TRANSISTOR	UMC5N(NPN/PNP,DUAL)
U152	TRANSISTOR	UMH9N
U111,U153	P-CH FET	FDZ204P
Q602	FET	2SK3019
U151	VOLTAGE DETECTOR	XC61CC4202N
D121	ZENER DIODE	EDZ5.1B
D120	ZENER DIODE	EDZ6.8B
F102	FUSE	FCC16-801AD-TP
F101	FUSE	FCC16-202AD-TP
U113	LDO	LP2985BPX-4.0
D301,D302	DIODE	1SS355
D178	SCHOTTKY DIODE	1N5819HW
D101,D102,D125,D172	SCHOTTKY DIODE	RB520S-30
U604	SCHOTTKY DIODE	MA4S713
U204	RESET IC	TCM809RENB713
D501,D601	VARIABLE DIODE	1SV306
	MAIN PCB	
C502	CAPACITOR	GRP1555C1HR50CZ01E/0.5pF
C511,C554,C726	CAPACITOR	GRP1555C1H1R0CZ01E / 1pF
C637	CAPACITOR	GRP1555C1H1R8CZ01E1.8pF
C526,C717,C721,C725	CAPACITOR	GRP1555C1H2R0CZ01E/2pF
C718	CAPACITOR	GRP1555C1H2R2CZ01E /2.2pF
C562,C716	CAPACITOR	GRP1555C1H3R0CZ01E/3pF
C630	CAPACITOR	GRP1555C1H4R0CZ01E/4pF
C654	CAPACITOR	GRP1555C1H4R7CZ01E/4.7pF
C516	CAPACITOR	GRP1555C1H5R0CZ01E/5pF
C515	CAPACITOR	GRP1555C1H6R0CZ01E/6pF
C635	CAPACITOR	GRP1555C1H7R5DZ01E/7.5pF
C522,C523,C611,C632	CAPACITOR	GRP1555C1H8R0DZ01E/8pF
C534	CAPACITOR	GRP1555C1H9R0DZ01E/9pF

C506,C560,C644	CAPACITOR	GRP1555C1H100JZ01E/10pF
C551	CAPACITOR	GRP1555C1H150JZ01E/15pF
C510	CAPACITOR	GRP1555C1H180JZ01E/18pF
C507,C605	CAPACITOR	GRP1555C1H220JZ01E/22pF
C645,C646,C650	CAPACITOR	GRP1555C1H270JZ01E/27pF
C225,C226	CAPACITOR	GRP1555C1H300JZ01E/30pF
C609,C610	CAPACITOR	GRP1555C1H390JZ01E/39pF
C614,C615,C520	CAPACITOR	GRP1555C1H560JD01E/56pF
C250,C505,C532,C533,C553,C606,C607,C617,C620,C622 ,C624,C628,C633,C636,C639,C642,C720,C723,C727	CAPACITOR	GRP1555C1H101JD01E/100pF
C629,C631	CAPACITOR	GRP155R71H221KA01E/220pF
C613,C625	CAPACITOR	GRP155R71H471KA01E/470pF
C104,C224,C508,C509,C531,C544,C550,C623,C643,C647 ,C649,C701,C702,C712,C713,C724	CAPACITOR	GRP155R71H102KA01E/1000pF
C626,C710	CAPACITOR	GRP155R71H332KA01E/3300pF
C527,C601	CAPACITOR	GRP155R71E472KA01E/4700pF
C103,C114,C201,C202,C204,C229,C231,C239,C241,C245 ,C247,C301,C302,C503,C528,C540,C541,C542,C543,C552 ,C608,C618,C707,C714,C729,C730,C731,C732,C733,C734 ,C735,C7715,C7716	CAPACITOR	GRP155R71C103KA01E/0.01uF
C211,C212	CAPACITOR	GRP155RR71C123KA01E/0.012uF
C213,C218,C220,C253,C504,C708	CAPACITOR	GRP155F51E223ZA01E/0.022uF
C501	CAPACITOR	GRP155F51C333ZA01E/0.033uF
C101,C102,C109,C110,C111,C112,C113,C115,C116,C117 ,C118,C119,C170,C184,C205,C206,C207,C208,C209,C210 ,C214,C215,C227,C228,C230,C232,C233,C235,C237,C238 ,C240,C243,C244,C246,C254,C513,C529,C530,C648,C658 ,C703,C704,C711,C728	CAPACITOR	GRP155F51C104ZA01E/0.1uF
C705	CAPACITOR	GRP155F51A224ZD02E/0.22uF
C124,C216,C217,C219,C221,C536,C537,C538,C539,C616 ,C619,C621,C627,C662	CAPACITOR	GRP155F50J105ZD02E/1uF
C612	CAPACITOR	GRM188R71H472KA01D/4700pF
C604	CAPACITOR	GRM188F51E104ZA01D/0.1uF
C709	CAPACITOR	GRM188R71A224KA01D/0.22uF

C203	CAPACITOR	GRM188F51A684ZC01D/0.68uF
C706	CAPACITOR	GRM188F51A105ZC01D/1uF
C125,C126,C127,C652,C653	CAPACITOR	GRM21BR60J225KC01L/2.2uF(6.3V)
C105,C123	CAPACITOR	GRM21BF51A225ZA01L/2.2uF(10V)
C121	CAPACITOR	GRM21BF51A475ZA01L/4.7uF
C517,C521,C525,C546,C549,C634,C638,C640,C641,C651 ,C655,C656,C657,C659,C660,C661,C722,C901	CAPACITOR	OPEN
CT174	TANTAL CAPACITOR	TPM1C105PSSR/1.0uF
CT102,CT201,CT203,CT702,CT703	TANTAL CAPACITOR	TPM0J475PSSR/4.7uF
CT170	TANTAL CAPACITOR	TPM1A475PSSR/4.7uF
CT101,CT202,CT501,CT502,CT601,CT701	TANTAL CAPACITOR	TPM0J106PSSR/10uF
L503,L518	INDUCTOR	CI-B1005-10NSJT/1nH
L627	INDUCTOR	CI-B1005-12NSJT/1.2nH
L501	INDUCTOR	CI-B1005-39NSJT/3.9nH
L611	INDUCTOR	CI-B1005-56NSJT/5.6nH
L704,L706	INDUCTOR	CI-B1005-82NJJT/8.2nH
L502,L610,L902	INDUCTOR	CI-B1005-100JJT/10nH
L703,L705	INDUCTOR	CI-B1005-120NJJT/12nH
L515,L520	INDUCTOR	CI-B1005-150JJT/15nH
L517,L523	INDUCTOR	CI-B1005-180JJT/18nH
L612	INDUCTOR	CI-B1005-680JJT/68nH
L614	INDUCTOR	CI-B1005-820JJT/82nH
L901	INDUCTOR	CI-B1608-27NSJT/2.7nH
L522	INDUCTOR	CI-B1608-221JJT/220nH
L519	INDUCTOR	CI-B1608-271JJT/270nH
L601,L602	INDUCTOR	0603CS-27NXJBW/27nH
L603	INDUCTOR	0603CS-33NXJBW/33nH
L512	INDUCTOR	0603CS-56NXJBW/56nH
L615	INDUCTOR	0805HQ-20NXJBC/20nH
L507	INDUCTOR	0805CS-271XJBC/270nH
L510	INDUCTOR	0805CS-221XJBC / 220nH
L509	INDUCTOR	0805CS-471XJBC/470nH
L511	INDUCTOR	0805CS-681XJBC/680nH
L903	INDUCTOR	OPEN
R206,R207,R225,R518,R523,R608,R623,R624,R628,R701 ,R718,R731,R733,R741	RESISTOR	MCR01MZSJ000/0Ω

R609,R610	RESISTOR	MCR01MZSJ3R3/3.3 Ω
R702,R7715	RESISTOR	MCR01MZSJ120/12 Ω
R720	RESISTOR	MCR01MZSF49R9/49.9 (1%)
R164,R604	RESISTOR	MCR01MZSJ510/51 Ω
R615	RESISTOR	MCR01MZSF51R0(1%)/51 Ω
R513	RESISTOR	MCR01MZSJ910/91 Ω
R901	RESISTOR	MCR01MZSF91R0(1%)/91 Ω
R111,R134,R193,R217,R703,R706,R721,R750	RESISTOR	MCR01MZSJ101/100 Ω
R171	RESISTOR	MCR01MZSJ 201/200 Ω
R616	RESISTOR	MCR01MZSF2700(1%)/270 Ω
R192	RESISTOR	MCR01MZSJ 331 / 330 Ω
R704	RESISTOR	MCR01MZSJ391/390 Ω
R231,R341	RESISTOR	MCR01MZSJ471/470 Ω
R534	RESISTOR	MCR01MZSJ561/560 Ω
R614	RESISTOR	MCR01MZSF7500(1%)/750 Ω
R201,R202,R509,R601,R603,R626,R705,R709,R710,R711 R730,R732	RESISTOR	MCR01MZSJ102/1k Ω
R617	RESISTOR	MCR01MZSF1001(1%)/1k Ω
R502	RESISTOR	MCR01MZSJ112/1.1k Ω
R612,R707	RESISTOR	MCR01MZSJ152/1.5k Ω
R123	RESISTOR	MCR01MZSF1501(1%)/1.5k Ω
R203,R232	RESISTOR	MCR01MZSJ182/1.8k Ω
R214,R215,R230	RESISTOR	MCR01MZSJ222/2.2k Ω
R161	RESISTOR	MCR01MZSJ332/3.3k Ω
R124	RESISTOR	MCR01MZSF3301(1%)/3.3k Ω
R129	RESISTOR	MCR01MZSF4121(1%)/4.12k Ω
R143,R181	RESISTOR	MCR01MZSJ472/4.7k Ω
R519	RESISTOR	MCR01MZSJ822/8.2k Ω
R112,R172,R204,R208,R211,R213,R236,R503,R511,R512 R514,R515,R516,R530,R605,R606,R708	RESISTOR	MCR01MZSJ103/10k Ω
R620,R621	RESISTOR	MCR01MZSF1002(1%)/10k Ω
R611	RESISTOR	MCR01MZSF1212(1%)/12.1k Ω
R607	RESISTOR	MCR01MZSJ163/16k Ω
R102,R219,R220,R221,R235	RESISTOR	MCR01MZSJ203/20k Ω
R101,R135	RESISTOR	MCR01MZSJ223/22k Ω
R619,R625,R726	RESISTOR	MCR01MZSF2202(1%)/22k Ω

R602	RESISTOR	MCR01MZSJ333/33k Ω
R618	RESISTOR	MCR01MZSF4702(1%)/47k Ω
R106,R130,R142,R167,R173,R174,R183,R184,R205,R218,R233	RESISTOR	MCR01MZSJ513/51k Ω
R122,R128,R131,R132,R138,R162,R722	RESISTOR	MCR01MZSJ104/100k Ω
R727	RESISTOR	MCR01MZSF1003(1%)/100k Ω
R103	RESISTOR	MCR01MZSJ124/120k Ω
R209,R210	RESISTOR	MCR01MZSJ184/180k Ω
R242,R725	RESISTOR	MCR01MZSF1803(1%)/180k Ω
R109	RESISTOR	MCR01MZSJ204/200k Ω
R224,R728	RESISTOR	MCR01MZSF2403(1%)/240k Ω
R110	RESISTOR	MCR01MZSJ274/270k Ω
R212	RESISTOR	MCR01MZSJ514/510k Ω
R216,R510,R517,R520,R622,R716,R719	RESISTOR	OPEN
SH101	SHIELD CASE MSM	
SH104	SHIELD CASE RX	
SH102	SHIELD CASE TX	
SH103	SHIELD CASE PLL	
	SHIELD CASE PLL UPPER	
SH107	SHIELD PLATE	
SH106	SHIELD CASE RX TANK	
SH105	SHIELD CASE TX TANK	
J203	EAR JACK	AJR49-4K8000
D104,D105,D106,D107,D108,D109,D112,D113,D114,D115	KEY PAD LED	LEBB-S16P
Q103,Q104,Q801	TRANSISTOR	DTC114TE(NPN,SINGLE)
Q321	TRANSISTOR	IMD10A
U114,U301	TRANSISTOR	UMC5N(NPN/PNP,DUAL)
D201	TVS DIODE	PSOT05C
D202,D203,D204,D801,D802,D803,D804,D805,D806,D807	VARISTOR	AVLC5S02050
Q106	TVS DIODE	SMF05C
D124	SCHOTTKY DIODE	RB520S-30
L201,L205	BEAD(600OHM)	BLM15AG601SN1D
C251,C252	CAPACITOR	GRP1555C1H101JD01E/100pF
C801,C807	CAPACITOR	GRP155F51C104ZA01E/0.1uF
C222,C223	CAPACITOR	GRP155F50J105ZD02E/1uF
C802,C803,C804,C805,C806	CAPACITOR	GRM188F51A474ZC01D/0.47uF

C809	CAPACITOR	GRM219F51E104ZA01D/0.1uF
CT801,CT802,CT803	TANTAL CAPACITOR	TPM1A225PSSR/2.2uF
R222,R223	RESISTOR	MCR03EZJH000/0 Ω
R803	RESISTOR	MCR01MZSJ000/0 Ω
R301	RESISTOR	MCR03EZJH1R5/1.5 Ω
R304,R808	RESISTOR	MCR03EZJH6R8/6.8 Ω
R114,R115,R116,R117,R118,R119,R121,R125,R126,R139 R194,R195,R196,R197,R198	RESISTOR	MCR01MZSJ101/100 Ω
R190,R191	RESISTOR	MCR01MZSJ 331 / 330 Ω
R127	RESISTOR	MCR01MZSJ472/4.7k Ω
R120	RESISTOR	MCR01MZSJ203/20k Ω
R802	RESISTOR	MCR01MZSF2002(1%)/20k Ω
R820	RESISTOR	MCR03EZJH203/20k Ω
R182	RESISTOR	MCR01MZSJ513/51k Ω
R801	RESISTOR	MCR01MZSF4303(1%)/430k Ω
R804	RESISTOR	MCR01MZSF1004(1%)/1M Ω
J302	MOTOR	MVML-41101B
J201	EAR PIECE	SDRR-1328L-032J
MIC_PAD1	MIC	OB-22S42-C33A
LCD 801	LCD MODULE	OCM-12314G-C-KE026