2 — Parts Lists and Component Layouts

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Exploded view

Exploded view

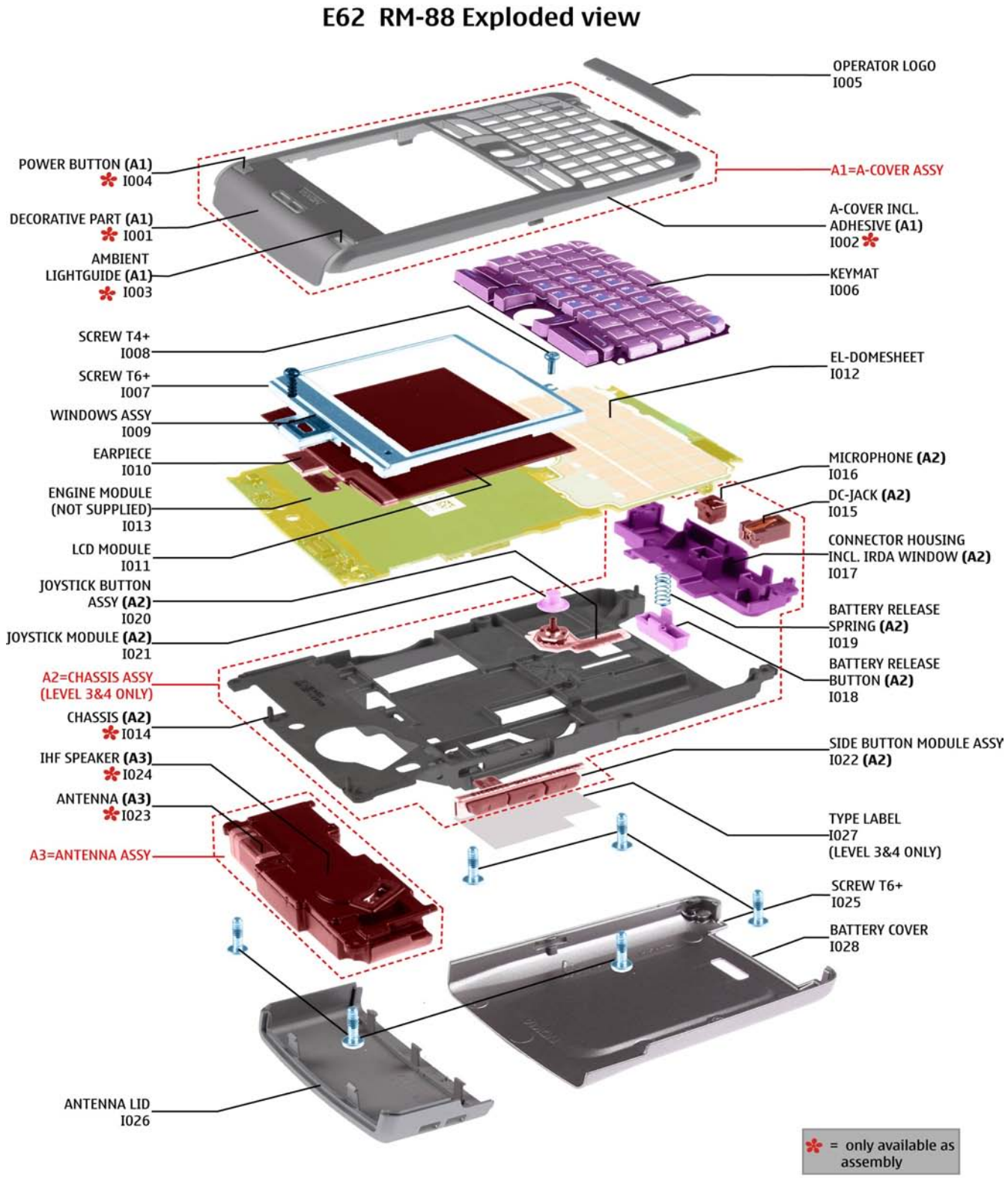


Figure 2 Exploded view of RM-88

Parts lists

Mechanical spare parts list

Note: For Nokia product codes, please refer to the latest Service Bulletins on the Partner Website (PWS).
To ensure you are always using the latest codes, please check the PWS on a daily basis.

Bold = ASSY
"XXXXXXX" = VARIANTS
"-" = NOT AVAILABLE
"???????" = AVAILABLE AS SPARE PART
I0xx = ITEM codes for upper or mono block
I1xx = ITEM codes for hinge block
I2xx = ITEM codes for lower block
I3xx = ITEM codes for soldered spare parts on the upper, hinge or lower block and not exchangable

ITEM/ CIRCUIT REF.	PART NO	PART NAME	QTY
I009	**???????**	**Window Assembly 040-012649**	**1**
A1	**???????**	**A-Cover Assembly Silver 040-012429**	**1**
I026	???????	SCREW M1.6X5.7 DMD12402 TORX SILV	6
I008	???????	SCREW M1.4X3.4 TORX PLUS 4IP	1
I007	???????	Remform screw 1.8x8	1
I019	???????	Battery Release Spring	1
I028	???????	BLANK LABEL 29mmx18mm EXP65673	1
I021	???????	Joystick Button 040-012658	1
I018	???????	Battery Release Button 040-012946	1
I023	???????	Joystick module tape 040-020164	1
I005	XXXXXXX	Operator Logo painted Silver 040-012438	1
I027	XXXXXXX	Antenna Lid, painted Silver 040-012654	1
I029	???????	Battery Cover painted 040-012428 Silver	1
I012	???????	EL-Dome Sheet 040-012655	1
I006	XXXXXXX	KEYMAT PRINTED SILVER 040-021863 EN-NL	1
I020	**???????**	**1RE JOYSTICK ASSEMBLY**	**1**
A2	**???????**	**Chassis Assembly 040-012635**	**1**
I017	**???????**	**CONNECTOR HOUSING ASSEMBLY 040-015883**	**1**
I022	**???????**	**Side Button Module 040-012642**	**1**
I011	???????	LCD AM 320x240 COG 16MCo Oxford	1

ITEM/ CIRCUIT REF.	PART NO	PART NAME	QTY
I016	???????	MIC MOD+HOLDER TOMAHAWK -42+-3DB	1
I010	???????	EARPIECE+SPRING 22+/-3DB 32R 7X11	1
I015	???????	CONN CHR DIA 2.0MM COMPRESS	1
A3	???????	ANTENNA MOD GSM/WCDMA P2524	1

RM-88 component parts list

Component parts list (1qr_10a_asmmtx)

Note: For Nokia product codes, please refer to the latest Service Bulletins on the Partner Website (PWS).
To ensure you are always using the latest codes, please check the PWS on a daily basis.

Item	Side	Grid reference		Description and value			
A2400	Bottom	C	8	SHIELD_040_015795	PWB POWER SHIELD CAN	~	~
A2801	Bottom	C	13	SHIELD_PWB_CAN_RAP	SHIELD PWB CAN RAP	~	~
A4801	Bottom	K	10	SHIELD_040_017960	PWB CAN COMBO	~	~
A4802	Bottom	L	7	SHIELD_PWB_CAN_APE	SHIELD PWB CAN APE	~	~
A6001	Bottom	L	4	SHIELD_PWB_CAN_WCDMA	SHIELD PWB CAN WCDMA	~	~
A7506	Bottom	G	16	SHIELD_PWB_CAN_PA	SHIELD PWB CAN Pa	~	~
A7507	Bottom	G	13	SHIELD_PWB_CAN_PIHI	SHIELD PWB CAN PIHI	~	~
B2200	Bottom	C	10	CRYSTAL_3.3X1.6_H0.9	CRYSTAL 32.768KHZ +-30PPM 12.5PF	32.768kHz	~
C2000	Bottom	D	5	0402C	Chipcap 5% NP0	27p	50V
C2001	Bottom	D	5	0603C_H0.95	CHIPCAP X5R 1U K 25V 0603	1u0	25V
C2002	Bottom	E	4	0603C	CHIPCAP X5R 2U2 K 6V3 0603	2u2	6V3
C2003	Bottom	E	4	0402C	CHIPCAP X7R 33N K 10V 0402	33n	10V

Item	Side	Grid reference		Description and value			
C2004	Bottom	E	4	0402C	CHIPCAP X7R 33N K 10V 0402	33n	10V
C2006	Bottom	E	3	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C2025	Bottom	F	4	0805C	CHIPCAP X5R 10U M 6V3 0805	10U	6V3
C2026	Bottom	F	4	0805C	CHIPCAP X5R 10U M 6V3 0805	10U	6V3
C2027	Bottom	F	3	0402C	Chipcap 5% X7R	3n3	50V
C2028	Bottom	F	3	0402C	Chipcap 5% NP0	47p	50V
C2029	Bottom	F	3	0402C	Chipcap 5% X7R	3n3	50V
C2030	Bottom	H	3	0402C	Chipcap 5% X7R	270p	50V
C2031	Bottom	F	3	0402C	Chipcap 5% NP0	47p	50V
C2071	Bottom	K	18	TANT_C_6.2 X3.4_H1.7	CHIPTCAP 150U M 10V 6X3.2X1.5	150u_10V	10V
C2100	Bottom	G	3	0402C	CHIPCAP X7R 33N K 10V 0402	33n	10V
C2101	Bottom	G	3	0402C	CHIPCAP X7R 33N K 10V 0402	33n	10V
C2102	Bottom	G	3	0603C	CHIPCAP X5R 2U2 K 6V3 0603	2u2	6V3
C2103	Top	F	22	0402C	Chipcap 5% X7R	1n0	50V
C2104	Top	F	22	0402C	Chipcap 5% X7R	1n0	50V
C2200	Bottom	B	9	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2201	Bottom	D	9	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2202	Bottom	E	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V

Item	Side	Grid reference		Description and value			
C2203	Bottom	C	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2204	Bottom	C	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2205	Bottom	B	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2206	Bottom	C	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2207	Bottom	D	10	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2208	Bottom	C	10	0402C	Chipcap 5% NP0	27p	50V
C2209	Bottom	C	10	0402C	Chipcap 5% NP0	22p	50V
C2210	Bottom	D	7	0603C	CHIPCAP X5R 1U K 16V 0603	1u0	16V
C2211	Bottom	D	7	0603C	CHIPCAP X5R 4U7 K 6V3 0603	4u7	6.3V
C2212	Bottom	C	7	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2213	Bottom	D	9	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2214	Bottom	D	9	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2215	Bottom	E	8	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2216	Bottom	E	8	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2217	Bottom	D	10	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2218	Bottom	C	9	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2219	Bottom	D	10	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2220	Bottom	C	8	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C2221	Bottom	E	7	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2222	Bottom	D	7	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V

Item	Side	Grid reference		Description and value			
C2223	Bottom	B	8	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C2224	Bottom	B	9	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C2225	Bottom	D	9	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2226	Bottom	D	8	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2227	Bottom	C	7	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2228	Bottom	D	8	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2229	Bottom	C	7	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2230	Bottom	D	9	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2231	Bottom	B	8	0805C	CHIPCAP X5R 10U M 6V3 0805	10U	6V3
C2232	Bottom	D	8	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2270	Bottom	B	8	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2271	Bottom	B	8	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2272	Bottom	B	9	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2273	Bottom	C	7	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2274	Bottom	C	7	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2275	Bottom	B	7	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C2281	Bottom	E	8	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2300	Bottom	C	6	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C2301	Bottom	B	6	0805C	CHIPCAP X5R 22U M 6V3 0805	22u	6V3

Item	Side	Grid reference		Description and value			
C2302	Bottom	B	7	0805C	CHIPCAP X5R 22U M 6V3 0805	22u	6V3
C2303	Bottom	D	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2304	Bottom	C	7	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C2305	Bottom	E	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2306	Bottom	C	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2307	Bottom	C	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2309	Bottom	B	5	0805C	CHIPCAP X5R 22U M 6V3 0805	22u	6V3
C2312	Bottom	C	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2313	Bottom	D	5	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2314	Bottom	D	6	0603C	CHIPCAP X5R 4U7 K 6V3 0603	4u7	6.3V
C2315	Bottom	E	7	0603C_H0.95	CHIPCAP X5R 1U K 25V 0603	1u0	25V
C2316	Bottom	E	7	0402C	Chipcap 5% NP0	56p	50V
C2317	Bottom	D	7	0402C	Chipcap 5% NP0	27p	50V
C2319	Bottom	E	7	0603C_H0.95	CHIPCAP X5R 1U K 25V 0603	1u0	25V
C2700	Bottom	D	16	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2800	Bottom	I	11	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2801	Bottom	L	10	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2802	Bottom	I	10	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V

Item	Side	Grid reference		Description and value			
C2803	Bottom	I	10	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2804	Bottom	I	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2805	Bottom	L	9	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2807	Bottom	L	10	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C2808	Bottom	I	11	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2809	Bottom	I	11	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2810	Bottom	I	9	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2811	Bottom	L	9	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2812	Bottom	I	10	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2813	Bottom	L	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2814	Bottom	I	11	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2815	Bottom	K	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2818	Bottom	J	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2819	Bottom	L	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C2820	Bottom	I	9	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V

Item	Side	Grid reference		Description and value			
C2830	Bottom	L	11	0402C	Chipcap X7R 10% 50V 0402	1n0	50V
C3000	Bottom	K	8	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3001	Bottom	J	7	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C3002	Bottom	J	7	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3003	Bottom	J	7	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C3004	Bottom	J	6	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3005	Bottom	M	7	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3006	Bottom	L	8	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3007	Bottom	M	6	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C3008	Bottom	J	7	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3009	Bottom	M	7	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3010	Bottom	J	12	0402C	Chipcap +-0.25pF NP0	3p3	50V
C3011	Bottom	J	6	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3017	Bottom	L	8	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3018	Bottom	M	6	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C3100	Bottom	G	6	0402C	CHIPCAP NP0 27P J 50V 0402	27p0	50V

Item	Side	Grid reference		Description and value			
C4400	Top	C	22	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C4401	Top	C	22	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C4402	Top	C	22	0402C	Chipcap 5% NP0	27p	50V
C4403	Top	C	22	0402C	Chipcap 5% NP0	27p	50V
C4404	Bottom	I	4	0402C	Chipcap 5% NP0	68p	50V
C4405	Bottom	I	4	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C4408	Bottom	H	2	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C4409	Bottom	I	2	0603C	CHIPCAP X5R 4U7 K 6V3 0603	4u7	6.3V
C4410	Bottom	H	2	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C4411	Bottom	I	2	0402C	Chipcap 5% NP0	27p	50V
C4414	Bottom	I	5	0603C	CHIPCAP X5R 1U K 16V 0603	1u0	16V
C4420	Bottom	B	13	0402C	Chipcap X7R 5% 16V 0402	10n	16V
C4421	Bottom	B	13	0402C	Chipcap X7R 5% 16V 0402	10n	16V
C4424	Bottom	I	5	0402C	CHIPCAP X5R 1U K 6V3 0402	1u0	6.3V
C5200	Bottom	L	12	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C5201	Bottom	M	11	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C5202	Bottom	L	11	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C5203	Bottom	M	11	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V

Item	Side	Grid reference		Description and value			
C5204	Bottom	L	11	0402C_H0.6	CHIPCAP X5R 100N M 16V 0402	100n	16V
C6031	Bottom	K	3	0402C	Chipcap 5% NP0	18p	50V
C6032	Bottom	L	3	0402C	Chipcap 5% NP0	100p	50V
C6033	Bottom	L	3	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C6034	Bottom	L	3	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C6035	Bottom	L	4	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C6036	Bottom	L	3	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C6037	Bottom	L	4	0402C	CHIPCAP X5R 1U5 K 4V 0402	1u5	4V
C6038	Bottom	K	4	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C6039	Bottom	J	4	0402C	Chipcap 5% NP0	18p	50V
C6041	Bottom	K	3	0402C	Chipcap +-0.25pF NP0	2p7	50V
C6042	Bottom	K	4	0402C	Chipcap +-0.25pF NP0	2p7	50V
C6050	Bottom	K	3	0402C	CHIPCAP X5R 1U K 6V3 0402	1u0	6.3V
C7501	Bottom	H	13	0402C	Chipcap +-0.25pF NP0	2p7	50V
C7503	Bottom	F	12	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C7504	Bottom	H	13	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C7505	Bottom	F	12	0402C	CHIPCAP X5R 1U K 6V3 0402	1u0	6.3V
C7506	Bottom	F	12	0603C	CHIPCAP X5R 1U K 6V3 0603	1u0	6.3V
C7507	Bottom	F	12	0402C	Chipcap X7R 5% 16V 0402	10n	16V
C7508	Bottom	F	13	0402C	Chipcap 5% NP0	18p	50V

Item	Side	Grid reference		Description and value			
C7509	Bottom	F	12	0402C	Chipcap +-0.25pF NP0	2p7	50V
C7510	Bottom	F	13	0402C	Chipcap 5% NP0	27p	50V
C7511	Bottom	G	12	0603C	CHIPCAP NP0 2N2 G 16V 0603	2n2	16V
C7512	Bottom	G	11	0402C	Chipcap +-0.25pF NP0	2p7	50V
C7513	Bottom	F	12	0402C	Chipcap X7R 10% 16V 0402	10n	16V
C7515	Bottom	H	12	0402C	Chipcap +-0.25pF NP0	3p3	50V
C7516	Bottom	G	12	0402C	Chipcap 5% X7R	470p	50V
C7517	Bottom	G	12	0402C	Chipcap +-0.25pF NP0	3p3	50V
C7518	Bottom	F	13	0402C	CHIPCAP X5R 100N K 10V 0402	100n	10V
C7520	Bottom	H	16	0402C	Chipcap +-0.25pF NP0	3p3	50V
C7522	Bottom	F	16	0402C	Chipcap +-0.25pF NP0	1p8	50V
C7523	Bottom	H	16	0402C	CHIPCAP X5R 1U K 6V3 0402	1u0	6.3V
C7524	Bottom	F	15	0402C	CHIPCAP X5R 1U K 6V3 0402	1u0	6.3V
C7525	Bottom	F	17	0402C	Chipcap 5% NP0	18p	50V
C7530	Bottom	M	4	0402C	Chipcap X7R 10% 25V 0402	4n7	25V
C7590	Bottom	L	3	0402C	Chipcap X7R 5% 16V 0402	10n	16V
C7591	Top	K	22	0402C	Chipcap 5% NP0	100p	50V
C7593	Top	J	22	0402C	Chipcap +-0.25pF NP0	8p2	50V
C7594	Top	J	23	0402C	Chipcap 5% NP0	12p	50V
C7595	Top	J	22	0402C	Chipcap 5% NP0	12p	50V

Item	Side	Grid reference		Description and value			
C7596	Top	K	23	0402C	Chipcap 5% NP0	100p	50V
C7597	Bottom	M	3	0402C	Chipcap 5% NP0	100p	50V
D2200	Bottom	C	8	TFBGA_108	RETU 3.02 TSA1GJWE TFBGA108	~	~
D2800	Bottom	K	10	uBGA_289	RAPGSM V1.1 PA uBGA289	~	~
D3000	Bottom	L	7	FBGA133_11.6X13.1	COMBO 256MNOR +1GM3 +256MDDRSDRAM FBGA133	8Mx16/16Mx16/8Mx16	~
D4400	Bottom	C	13	LLP_44	MCU E 8BIT COP8TAB5HYQ8 LLP44	~	~
F2000	Bottom	C	4	0603_FUSE_AVX2MATS	SM FUSE F 2.0A 32V	2A	~
G2200	Bottom	B	12	BATTER_EECEP	RTC BACUP CAPAC 311 SIZE FOR 2.6V 4UAH	2.6V	~
G7500	Bottom	H	12	VCO_DCS02733	VCO 3296-3980MHZ 4-BAND MATSUSHITA	3296-3980 MHz	~
G7501	Bottom	F	11	NKG3176B_H1.0	VCTCXO 38.4MHZ 2.5V	38.4MHz	~
L2000	Bottom	D	4	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/100MHz	~
L2100	Top	F	23	0405_2_MATSU	CHIP BEAD ARRAY 2X1000R 0405	2x1000R/100MHz	~
L2102	Bottom	B	20	COIL_0603CS	CHIP COIL 56N J Q38/250MHZ 0603	56nH	~
L2103	Bottom	B	20	COIL_0603CS	CHIP COIL 56N J Q38/250MHZ 0603	56nH	~
L2202	Bottom	E	9	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/100MHz	~

Item	Side	Grid reference		Description and value			
L2203	Bottom	E	9	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L2204	Bottom	E	9	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L2205	Bottom	E	9	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2206	Bottom	E	8	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L2270	Bottom	B	8	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2271	Bottom	B	8	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2272	Bottom	C	8	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2273	Bottom	B	8	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2301	Bottom	B	5	0603_BLM	FERR.BEAD 220R/100M 2A 0R05 0603	220R/ 100MHz	~
L2302	Bottom	B	6	CHOKE_SER400_H1.2	INDUCT WW 10UH 0A65 0R35 4X4X1.2	10uH	~
L2304	Bottom	D	6	CHOKE_SER300	CHOKE 22U M 1R5 0.35A	22uH	~
L2305	Bottom	D	5	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L2306	Bottom	C	5	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L4400	Top	C	22	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L4401	Top	C	22	FERRITE_0402	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~

Item	Side	Grid reference		Description and value			
L4402	Bottom	I	5	CHOKE_ELT3 KN152C	COIL 0.47MH 50MA 3.3X3.4X1.4M M	0.47MH	~
L5200	Bottom	L	12	FERRITE_04 02	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L6030	Bottom	K	3	0402L	CHIP COIL 2N7 +-0N3 Q29/800M 0402	2n7H	~
L6031	Bottom	K	4	0402L	CHIP COIL 2N7 +-0N3 Q29/800M 0402	2n7H	~
L6032	Bottom	K	4	0402L	CHIP COIL 22N J Q28/800M 0402	22nH	~
L7500	Bottom	G	14	0402L	CHIP COIL 18N J Q29/800M 0402	18nH	~
L7501	Bottom	G	14	0402L	CHIP COIL 33N J Q23/800M 0402	33nH	~
L7502	Bottom	F	13	FERRITE_04 02	FERRITE BEAD 0.6R 600R/ 100MHZ 0402	600R/ 100MHz	~
L7503	Bottom	F	16	0402LQW	CHIP COIL 27N C Q25/250MHZ 0402	27nH	~
L7504	Bottom	G	14	0402L	CHIP COIL 47N J Q23/800M 0402	47nH	~
L7505	Bottom	G	14	0402L	CHIP COIL 22N J Q28/800M 0402	22nH	~
L7515	Bottom	H	12	0402L_H0.4 5	CHIP COIL 4N7 +-0N1 Q29/1GHZ 0402	4n7H	~
L7530	Bottom	H	14	0402L	FERR.BEAD 240R7100M 0.4A 0R4 0402	240R/ 100MHz	~

Item	Side	Grid reference		Description and value			
L7531	Bottom	F	14	0402L	FERR.BEAD 240R7100M 0.4A 0R4 0402	240R/ 100MHz	~
L7591	Top	J	22	0402L	CHIP COIL 6N8 J Q27/800M 0402	6n8H	~
L7592	Top	K	23	0402L_POL2	CHIP COIL 82N +-0N3 Q17/300M 0402	82nH	~
M2100	Bottom	C	4	VIBRA_M_KH N4NX1RA	SMD VIBRA MOTOR 1.3V 90MA 9000RPM	~	~
N2300	Bottom	C	6	TFBGA_84_6 .15X6.15	TAHVO V5.2 LF TFBGA84	~	~
N2301	Bottom	E	6	USMD8_1.69 X1.69	WHITE LED DRIVER 4LEDS 500MW 8BUMP USMD8	~	~
N4401	Bottom	H	2	IRDA_RPM9 60	IRDA 1.15MBPS 2.2MM ROHS	~	~
N4402	Bottom	H	4	MSOP_10	EL DRIVER D381B 2-7V MSOP-10	~	~
N4403	Bottom	E	13	SC70_5	1XOP AMP 2.7-5.5V LMV321 SC70-5	~	~
N5200	Bottom	M	11	USMD16_2.0 3X2.03	VREG & LEVEL SHIFT LP3928 USMD16	~	2.8V
N6030	Bottom	L	4	CSP_47_3.85 X4.05	BC4-ROM1.0RDL	~	~
N7505	Bottom	G	13	TFBGA144	AHNE301A TRANCEIVER RFIC TFBGA144	~	~
N7520	Bottom	G	16	RF9282E3.6	PA RF9282E6.3 GSM/EDGE 850/900/1800 /1900	~	~
N7590	Top	J	22	SC70_6_FAIR	HIGH POWER SPDT RF SW SC70	~	~

Item	Side	Grid reference		Description and value			
R2000	Bottom	E	4	0402R	Resistor 5% 63mW	220R	~
R2001	Bottom	E	4	FLIP_CHIP_8_1.7X1.7	ASIP SINGLE ENDED MICROPHONE INTERF BGA8	~	~
R2003	Bottom	G	4	0402R	Chipres 0W06 22k F 200ppm 0402	22k	~
R2004	Bottom	G	4	0402R	Chipres 0W06 22k F 200ppm 0402	22k	~
R2006	Bottom	F	3	BGA11	ASIP 4 LINES AUDIO FILTER BGA11	~	~
R2007	Bottom	I	3	uBGA11_1.6X2.15	ASIP SILIC USB OTG / ESD BGA11	~	~
R2008	Bottom	I	3	0404_RP	RES NETWORK 0W06 220K/ 120K J 0404	220k/120k	~
R2015	Bottom	D	4	BGA4_1.01X1.07	ASIP TVS BGA4	~	~
R2025	Bottom	F	4	0402R	Resistor 5% 63mW	10R	~
R2026	Bottom	F	4	0402R	Resistor 5% 63mW	10R	~
R2030	Bottom	I	3	0402R	Resistor 5% 63mW	100R	~
R2070	Bottom	K	18	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~
R2071	Bottom	C	10	0402_NTH5	NTC RES 47K J B=4050+-3% 0402	47k	~
R2100	Bottom	G	3	FLIP_CHIP_8_1.7X1.7	ASIP SINGLE ENDED MICROPHONE INTERF BGA8	~	~
R2101	Bottom	G	3	0402R	Resistor 5% 63mW	220R	~
R2104	Top	F	23	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~

Item	Side	Grid reference		Description and value			
R2105	Top	F	23	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~
R2106	Bottom	C	17	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~
R2107	Bottom	C	17	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~
R2108	Top	F	22	0402R	Chipres 0W06 jumper 0402	0R	~
R2109	Top	F	22	0402R	Chipres 0W06 jumper 0402	0R	~
R2200	Bottom	E	10	0402R	Resistor 5% 63mW	100k	~
R2201	Bottom	D	10	0402R	Resistor 5% 63mW	120k	~
R2206	Bottom	B	9	0402R	Resistor 5% 63mW	1k0	~
R2207	Bottom	B	10	0402R	Resistor 5% 63mW	1k0	~
R2208	Bottom	B	10	0402R	Resistor 5% 63mW	1k0	~
R2209	Bottom	B	10	0402R	Resistor 5% 63mW	1k0	~
R2212	Bottom	B	9	0402R	Resistor 5% 63mW	470R	~
R2213	Bottom	D	10	0402R	Resistor 5% 63mW	4k7	~
R2214	Bottom	E	10	0402R	Resistor 5% 63mW	4k7	~
R2216	Bottom	D	10	0402R	CHIPRES 0W06 2M2 J 0402	2M2	~
R2307	Bottom	C	5	0402R	Resistor 5% 63mW	100R	~
R2310	Bottom	D	7	0402R	Resistor 5% 63mW	33R	~
R2700	Bottom	D	16	uBGA8_1.47 X1.47	ASIP SIM INTERFACE **LOW CAP**BGA8	~	~

Item	Side	Grid reference		Description and value			
R3000	Bottom	K	8	0402R	Resistor 5% 63mW	4k7	~
R3002	Bottom	I	10	0402R	Resistor 5% 63mW	10R	~
R3003	Bottom	K	8	0402R	Resistor 5% 63mW	4k7	~
R3004	Bottom	K	8	0402R	Resistor 5% 63mW	4k7	~
R3007	Bottom	M	8	0402R	Resistor 5% 63mW	10k	~
R3008	Bottom	L	8	0402R	CHIPRES 0W06 20R J 0402	20R	~
R4400	Top	B	22	0402R	Resistor 5% 63mW	470k	~
R4401	Top	B	22	0402R	Resistor 5% 63mW	100k	~
R4402	Top	B	22	0402R	Resistor 5% 63mW	470k	~
R4403	Top	A	22	0402_NTH5	NTC RES 47K J B=4050+-3% 0402	47k	~
R4404	Bottom	I	5	0402R	Chipres 0W06 jumper 0402	0R	~
R4406	Top	L	22	0402_VAR	CHIP VARISTOR VWM14V VC50V 0402	14V/50V	~
R4407	Bottom	D	13	0402R	Resistor 5% 63mW	18R	~
R4409	Bottom	D	13	0402R	Resistor 5% 63mW	18R	~
R4410	Bottom	D	14	0402R	Resistor 5% 63mW	1k0	~
R4412	Top	B	22	0402R	Resistor 5% 63mW	680R	~
R4413	Top	C	22	0402R	Chipres 0W06 jumper 0402	0R	~
R4414	Bottom	G	4	0402R	Resistor 5% 63mW	100k	~
R4423	Bottom	I	2	0805R_THERM1	CHIPRES 0W125 4R7 J 0805	4R7	~

Item	Side	Grid reference		Description and value			
R4430	Bottom	B	14	0402R	Resistor 5% 63mW	100k	~
R4432	Bottom	D	11	0402R	Chipres 0W06 jumper 0402	0R	~
R4438	Bottom	D	14	0402R	Resistor 5% 63mW	3k3	~
R4439	Bottom	D	14	0402R	Resistor 5% 63mW	3k3	~
R4440	Bottom	D	14	0402R	Resistor 5% 63mW	3k3	~
R4441	Bottom	H	3	0402R	Resistor 5% 63mW	82k	~
R4444	Bottom	I	5	0402R	Chipres 0W06 5% 0402	3M3	~
R4506	Bottom	B	17	0402R	Chipres 0W06 jumper 0402	0R	~
R4507	Bottom	B	17	0402R	Chipres 0W06 jumper 0402	0R	~
R4508	Bottom	B	17	0402R	Chipres 0W06 jumper 0402	0R	~
R4509	Bottom	B	16	0402R	Chipres 0W06 jumper 0402	0R	~
R5201	Bottom	M	10	0402R	Resistor 5% 63mW	100k	~
R5202	Bottom	L	10	0402R	Resistor 5% 63mW	100k	~
R5203	Bottom	M	11	0402R	Resistor 5% 63mW	100k	~
R5204	Bottom	L	11	0402R	Resistor 5% 63mW	2k2	~
R6030	Bottom	L	3	0402R	Resistor 5% 63mW	10k	~
R6031	Bottom	K	4	0402R	Resistor 5% 63mW	10k	~
R6032	Bottom	L	4	0402R	CHIPRES 0W06 2R2 J 0402	2R2	~
R6034	Bottom	K	3	0402R	Resistor 5% 63mW	10k	~
R6035	Bottom	K	4	0402R	Resistor 5% 63mW	100k	~

Item	Side	Grid reference		Description and value			
R6302	Bottom	H	1	0402R	Chipres 0W06 jumper 0402	0R	~
R7501	Bottom	G	12	0402R	Resistor 5% 63mW	2k2	~
R7502	Bottom	H	13	0402R	CHIPRES 0W06 10K F 0402	10k	~
R7503	Bottom	F	13	0402R	Resistor 5% 63mW	4k7	~
R7504	Bottom	F	12	0402R	Chipres 0W06 jumper 0402	0R	~
R7505	Bottom	G	12	0402R	CHIPRES 0W06 8K2 F 0402	8k2	~
R7506	Bottom	F	13	0402R	Resistor 5% 63mW	10R	~
R7507	Bottom	H	13	0402R	Resistor 5% 63mW	10R	~
R7508	Bottom	F	12	0402R	Resistor 5% 63mW	10R	~
R7509	Bottom	F	12	0402R	Resistor 5% 63mW	22k	~
R7510	Bottom	F	17	0402R	Resistor 5% 63mW	15R	~
R7522	Bottom	F	16	0402R	CHIPRES 0W06 27K F 0402	27k	~
R7523	Bottom	H	16	0402R	Chipres 0W06 jumper 0402	0R	~
R7586	Bottom	L	4	0402R	Resistor 5% 63mW	330R	~
R7587	Bottom	M	3	0402R	Chipres 0W06 jumper 0402	0R	~
R7588	Top	J	23	0402R	Chipres 0W06 jumper 0402	0R	~
R7590	Bottom	M	4	0402R	Resistor 5% 63mW	1k8	~
R7591	Top	J	22	0402R	Chipres 0W06 jumper 0402	0R	~
R7592	Bottom	L	4	0402R	Resistor 5% 63mW	27k	~
R7594	Bottom	M	3	0402R	Resistor 5% 63mW	1k2	~

Item	Side	Grid reference		Description and value			
S4401	Top	L	22	BUTTON_EVPAA	SWITCH PB LIGHT EVPAA 15V 20MA	~	~
T7501	Bottom	G	12	TRANS_LDB15	TRANSF BALUN 3800 +-550MHZ 0805	~	~
T7520	Bottom	H	17	TRANS_LDB15	TRANSF BALUN 1800 +-100mhz 2x1.25	~	~
V2302	Bottom	B	5	SOD323F	SCH DI 30V 2A SOD323F	~	~
V4400	Top	B	22	PT202MR0MP	DI PHOTO PT202MR0MP 620NM 1.25X2	~	~
V4401	Bottom	I	4	SC_76	DI ZEN 100V 6% 200MW SOD323	~	~
V4402	Bottom	J	4	SC_76	DI ZEN 100V 6% 200MW SOD323	~	~
V4403	Bottom	E	14	VMT3	TR 2SC5658QRS N 50V 0A1 0W15 VMT3	~	~
V4404	Bottom	H	4	SOT_666	TRX2+RX4 PEMD9 N&P 10K/47K 0W12 SOT666	~	~
V4405	Top	B	22	LED_CL191	LED CL-191WB-D-T WHITE 0` 115MCD 0603	~	~
V4406	Top	B	22	EM3	TR PDTC114EEN 50V RB=RBE=10K EM3	~	~
V4407	Bottom	B	14	EM3	TR PDTC114EEN 50V RB=RBE=10K EM3	~	~
V7590	Bottom	M	3	SOT323	Tr NPN 12V 35mA SOT323	~	~

Item	Side	Grid reference		Description and value			
W6300	Bottom	G	1	ANT_RENM05041	BT/WLAN 1.0 TP ANTENNA RELEASE	~	~
X2000	Bottom	C	1	CON_JACK_HR33NK_2DJA_2S	CONN DC-JACK 2.0MM 3POL SPR 90DEG	~	~
X2001	Bottom	K	2	USB_MITSUMI_R415082	SMD CONN 5POL MINI-USB B TYPE P0.8	~	~
X2002	Bottom	E	2	JACK_T_378840_A9	HEADSET JACK 4-POLE	~	~
X2070	Bottom	I	18	LYNX_BATT_CONN_H7.0	SM BATTERY CONN 3POL SPR 12V 2A	~	~
X2100	Bottom	D	20	CONN_ANT_DMD11562	CON PPP ANTENNA R1024 DMD11562	~	~
X2101	Bottom	D	20	CONN_ANT_DMD11562	CON PPP ANTENNA R1024 DMD11562	~	~
X2701	Bottom	C	15	SIM_CONN_M_SK_200300383	SM SIM CONN 2X3POL P2.54 H4.6	~	~
X4400	Top	E	22	JST_R_JAVK_G_1_R3	SM CONN 2X12F P0.4 30V .3A PWB/PWB	~	~
X4500	Bottom	F	8	CONN_SD_54742_002	SM LCD CONN 1X8 P2.0 SPR 50V 0.5A	~	~
X4501	Bottom	B	17	SMK_4309_B_B_6P_V2	SM CONN 6P SPR P1.3 50V BTOB	~	~
X5200	Bottom	K	15	MINISD_SC1S011V1S3	CONN MINISD PUSH-PUSH 3.3V 0.5A	~	~
X7504	Bottom	M	23	SPRING_WN9149_N10	C-SPRING ANTENNA active	~	~
X7505	Bottom	L	23	SPRING_WN9149_N10	C-SPRING ANTENNA active	~	~

Item	Side	Grid reference		Description and value			
X7507	Bottom	J	23	SPRING_WN9149_N10	C-SPRING ANTENNA active	~	~
Z2001	Bottom	I	3	FERRITE_0402	FERRITE BEAD 0.6R 600R/100MHZ 0402	600R/100MHz	~
Z2002	Bottom	H	3	FERRITE_0402	FERRITE BEAD 0.6R 600R/100MHZ 0402	600R/100MHz	~
Z2003	Bottom	F	3	FERRITE_0402	FERRITE BEAD 0.6R 600R/100MHZ 0402	600R/100MHz	~
Z2004	Bottom	F	3	FERRITE_0402	FERRITE BEAD 0.6R 600R/100MHZ 0402	600R/100MHz	~
Z2005	Bottom	E	3	FERRITE_0402	FERRITE BEAD 0.6R 600R/100MHZ 0402	600R/100MHz	~
Z4402	Top	B	23	uBGA25_2.47X2.47	ASIP 10-CH ESD EMI FILTER BGA25	~	~
Z4403	Top	C	23	uBGA25_2.47X2.47	ASIP 10-CH ESD EMI FILTER BGA25	~	~
Z4500	Bottom	B	13	uBGA24_2.62X2.62	ASIP EMIF10-1K010F2 **PB-FREE**	~	~
Z4501	Bottom	D	12	uBGA24_2.62X2.62	ASIP EMIF10-1K010F2 **PB-FREE**	~	~
Z5200	Bottom	M	12	uBGA11_1.62X2.12	ASIP EMIF04-MMC02F2**PB-FREE**	~	~
Z6030	Bottom	K	4	EZFVQ42NM61S	LTCC FILT 2441.75 +-41.75MHZ 2.5X2	2441.75MHz	~
Z7501	Bottom	G	15	FILTER_2.1X1.7_10P_H0.6	SAW FILT 1842.5/1960MHZ 2.0X1.6MM	1842.5/1960MHZ	~

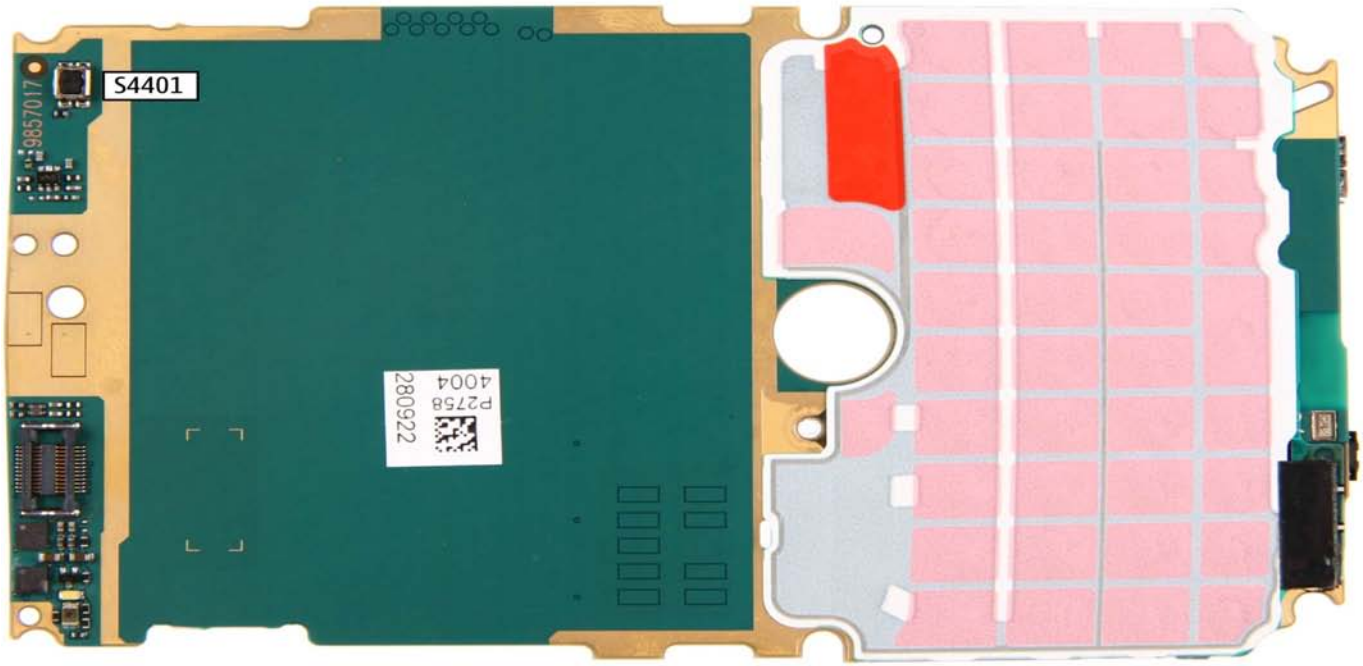
Item	Side	Grid reference		Description and value			
Z7503	Bottom	F	15	MODULE_LMSM43AA_341	TX SAW MODULE GSM 850/900MHZ 4.5X3.2	850/900MHz	~
Z7504	Bottom	G	15	FILTER_2.1X1.7_10P_H0.65	DUAL RX SAW FILTER 850/900MHZ 2016	850/900MHz	~
Z7520	Bottom	H	16	FERRITE_FBMJ1608	FERRITE BEAD 0R01 28R/100MHZ 0603	28R/100MHz	~

Component layouts

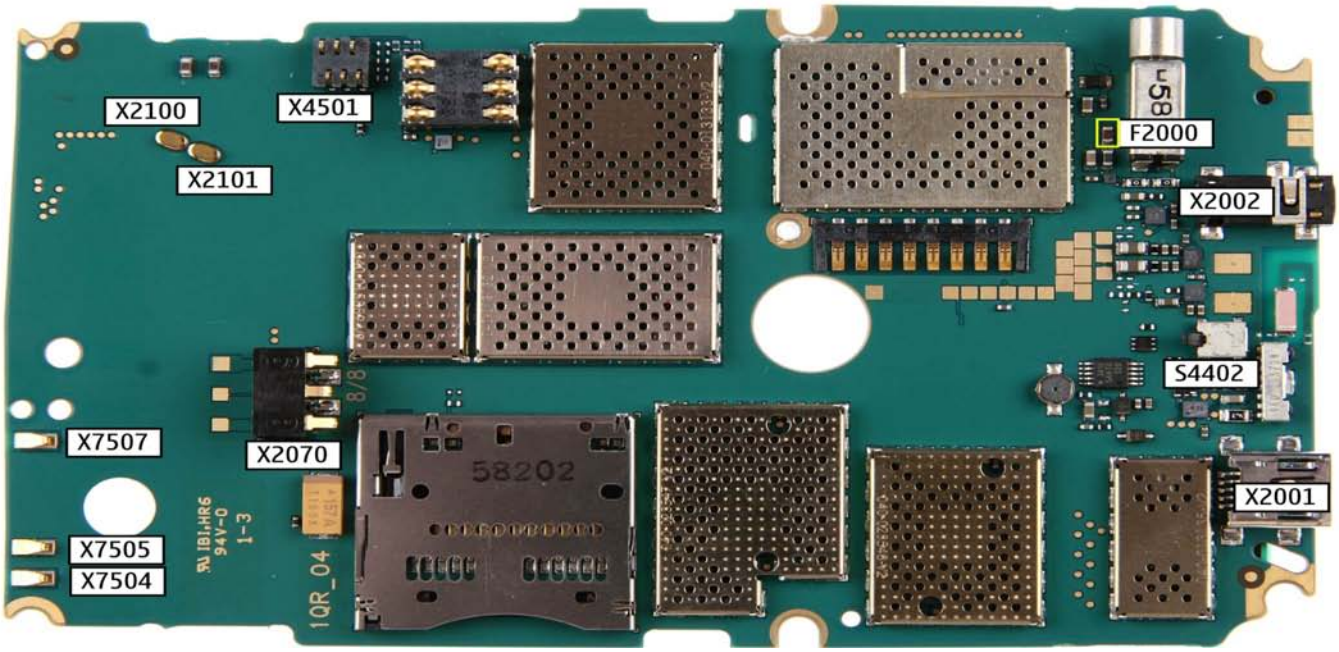
Components overview

E62 RM-88 Components overview

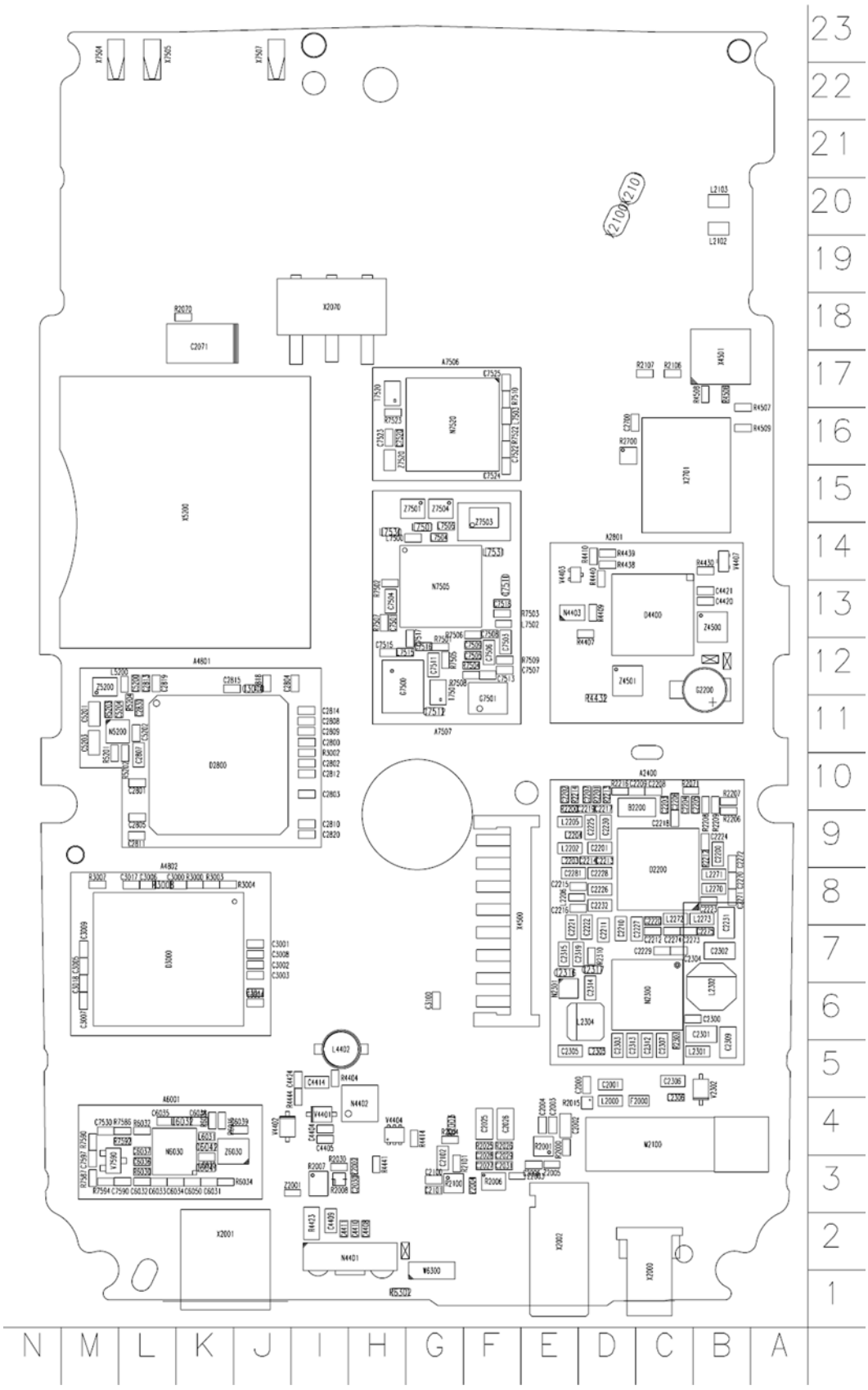
ENGINE MODULE TOP



ENGINE MODULE BOTTOM



Component layout - bottom (1qr_10a_asmdrw_b)



Component layout - top (1qr_10a_asmdrw_t)