

WLS-2002 Part List

1. LOGIC PART

ENCOMM CODE	DESCRIPTION	VPN	Vol.	LOCATION No.
	CRYSTAL OSC. 32.768KHz 30PPM	VTC-200(32.768KHz)	1	X3
	CRYSTAL OSC. 3.6864MHz 30PPM	VTC-200(3.6864MHz)	1	X2
	IC RESET, XC61CN2402MR	XC61CN2402MR/ TOREX	1	IC4
	IC VR,3V, XC6203E302PR	XC6203E302PR/ TOREX	1	IC5
	IC MPU,H8/3664F	H8/3664F	1	IC1
	IC EEPROM,CSI93C66S-TE13	CSI93C66S-TE13	1	IC2
	RES 0603 1/10W 0	MCR03 EZH J 0R0	1	R1
	RES 0603 1/10W 20K	MCR03 EZH J 203	1	R17
	RES 0603 1/10W 47K	MCR03 EZH J 473	1	R20
	RES 0603 1/10W 100K	MCR03 EZH J 104	3	R21,R28,R29
	MLCC 0603 COG 50V 5% 15PF	GRM39 COG 150J50PT	2	C10,C27
	MLCC 0603 COG 50V 5% 33PF	GRM39 COG 330J50PT	2	C12,C28
	MLCC 0603 Y5V 16V, K급 0.1uF	GRM39 Y5V 104Z16PT	6	C43,C44,C45,C46,C47,C48
	TANTAL CHIP 3428 6.3V 47uF / B TYPE	TCMS 6.3V 47uF +/-10% 3428	2	TT6,TT7
	TEST SWITCH		1	SW2

2.RF PART

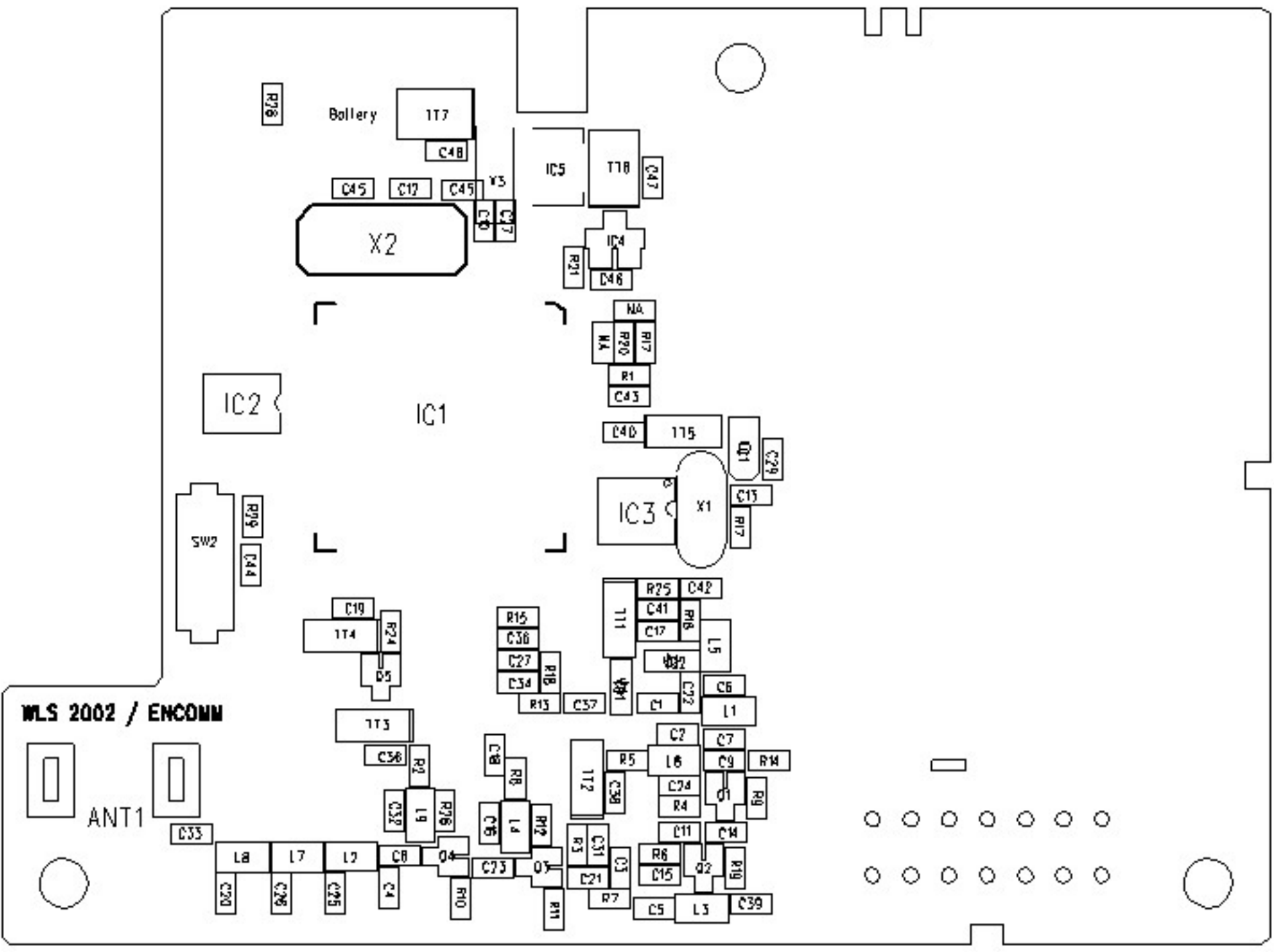
ENCOMM CODE	DESCRIPTION	VPN	Vol.	LOCATION No.
	ANTENNA(Helical)	EC-447	1	ANT1
	CRYSTAL OSC. 12.84MHz 20PPM	CRYSTAL 12.8 20PPM	1	X1
	PLL IC	TB31202FN	1	IC3
	TR, 2SC3356R25 S0T-23	2SC3356R25	4	Q1,Q2,Q3,Q4
	TR PNP,S0T-23, KTN2907AS, KEC	KTN2907AS	1	Q5
	VARIABLE CAP. DIODE	1SV239	2	VD1,VD2
	TRIMMER CAP. 20PF	TZY2R200A001	1	TC1
	RES 0603 1/10W 10	MCR03 EZH J 100	1	R2
	RES 0603 1/10W 22	MCR03 EZH J 220	1	R3
	RES 0603 1/10W 100	MCR03 EZH J 101	1	R4
	RES 0603 1/10W 220	MCR03 EZH J 221	2	R5,R24
	RES 0603 1/10W 270	MCR03 EZH J 271	1	R6
	RES 0603 1/10W 330	MCR03 EZH J 331	1	R7
	RES 0603 1/10W 360	MCR03 EZH J 361	1	R8
	RES 0603 1/10W 2.4K	MCR03 EZH J 242	1	R9
	RES 0603 1/10W 2.7K	MCR03 EZH J 272	1	R10
	RES 0603 1/10W 4.7K	MCR03 EZH J 472	3	R11,R25,R26
	RES 0603 1/10W 5.6K	MCR03 EZH J 562	1	R12

	RES 0603 1/10W 6.8K	MCR03 EZH J 682	2	R13,R27
	RES 0603 1/10W 10K	MCR03 EZH J 103	1	R14
	RES 0603 1/10W 15K	MCR03 EZH J 153	1	R15
	RES 0603 1/10W 16K	MCR03 EZH J 163	1	R16
	RES 0603 1/10W 24K	MCR03 EZH J 243	1	R18
	RES 0603 1/10W 27K	MCR03 EZH J 273	1	R19
	MLCC 0603 C0G 50V 0.25% 0.5PF	GRM39 C0G 0R5C50PT	1	C1
	MLCC 0603 C0G 50V 0.25% 1PF	GRM39 C0G 010C50PT	1	C2
	MLCC 0603 C0G 50V 0.25% 2PF	GRM39 C0G 020C50PT	1	C3
	MLCC 0603 C0G 50V 0.25% 3PF	GRM39 C0G 030C50PT	2	C4,C20
	MLCC 0603 C0G 50V 0.25% 4PF	GRM39 C0G 040C50PT	2	C5,C21
	MLCC 0603 C0G 50V 0.25% 7PF	GRM39 C0G 070C50PT	1	C6
	MLCC 0603 C0G 50V 0.25% 8PF	GRM39 C0G 080C50PT	2	C7,C22
	MLCC 0603 C0G 50V 0.5% 10PF	GRM39 C0G 100D50PT	2	C8,C23
	MLCC 0603 C0G 50V 5% 12PF	GRM39 C0G 120J50PT	4	C9,C24,C25,C26
	MLCC 0603 C0G 50V 5% 22PF	GRM39 C0G 220J50PT	1	C11
	MLCC 0603 C0G 50V 5% 33PF	GRM39 C0G 330J50PT	1	C29
	MLCC 0603 C0G 50V 5% 68PF	GRM39 C0G 680J50PT	2	C13,C30
	MLCC 0603 C0G 50V 5% 100PF	GRM39 C0G 101J50PT	2	C14,C33
	MLCC 0603 X7R 50V 10% 470PF	GRM39 X7R 471K50PT	2	C15,C31
	MLCC 0603 X7R 50V 10% 1000PF	GRM39 X7R 102K50PT	2	C16,C32
	MLCC 0603 X7R 50V 10% 0.01uF	GRM39 X7R 103K50PT	3	C18,C34,C35
	MLCC 0603 X7R 50V 10% 0.022uF	GRM39 X7R 223K50PT	1	C17
	MLCC 0603 Y5V 16V, K급 0.1uF	GRM39 Y5V 104Z16PT	8	C19,C36,C37,C38,C39,C40,C41,C42
	INDUCTOR 0805CS-8N2EMPS, 8.2nH	0805CS-8N2EMPS	1	L1
	INDUCTOR 0805CS-120EMPS, 12nH	0805CS-120EMPS	3	L2,L7,L8
	INDUCTOR 0805CS-220EMPS, 22nH	0805CS-220EMPS	2	L3,L9
	INDUCTOR 0805CS-270EMPS, 27nH	0805CS-270EMPS	1	L4
	INDUCTOR 0805CS-101EMPS, 100nH	0805CS-101EMPS	1	L5
	INDUCTOR 0805CS-331EMPS, 330nH	0805CS-331EMPS	1	L6
	TANTAL CHIP 3216 6.3V 1uF / A TYPE	TCMS 4V 1uF +/-10% 3216	1	TT1
	TANTAL CHIP 3216 6.3V 10uF / A TYPE	TCMS 4V 10uF +/-10% 3216	2	TT2,TT3
	TANTAL CHIP 3216 6.3V 22uF / A TYPE	TCMS 4V 22uF +/-10% 3216	2	TT4,TT5

3. SENSING PART

ENCOMM CODE	DESCRIPTION	VPN	Vol.	LOCATION No.
	SCR	03P4M	1	Q6
	TVS	1.5KE180CA	1	TVS
	ZENER DIODE	1N4729A	1	ZD1
	DIODE	1N4007	5	D1,D2,D3,D4,D5
	ROTARY SWITCH		1	SW1
	RES DIP 1/4W ±1% 470		1	R1/D
	RES DIP 1/4W ±1% 910		1	R2/D
	RES DIP 1/4W ±1% 1.4K		1	R3/D

tap res	RES DIP 1/4W ±1% 1.6K		1	R4/D
	RES DIP 1/4W ±1% 2.4K		1	R5/D
	RES DIP 1/4W ±1% 4K		1	R6/D
	RES DIP 1/4W ±1% 10		1	R7/D
	RES DIP 1/4W ±1% 2.4K		1	R8/D
	RES DIP 1/4W ±1% 100K		1	R9/D
	CAP DIP 0.1uF		1	C1/D
SENSING COIL	꺾기 : 0.4mm		1	
	No. of turn : 3			
	SIZE : 58 x 52 mm			
	재질 : UEW			
	PCB		1	
	BATTERY	XL-200F	1	BAT1
	CONNECTOR (7PIN)		1	CON7
	Antenna		1	ANT1



15V
5V
4V
Q91
3A
0V2
0V2

