




SPECIFICATIONS for Approval sheet

(TO : EDI)

Item : SPEAKER

Model : SG-1812C01

		Prepared	Checked	Approved
	Name			
	Sign.			
		Prepared	Checked	Approved
	Name	W.S.Y	P.C.S	C.K.M
	Sign.			

CONTENTS

1. SCOPE
2. MECHANICAL LAYOUT & DIMENSIONS
3. ELECTRICAL AND ACOUSTICAL CHARACTERISTICS
4. GENERAL REQUIREMENTS
5. RECOMMEND STORAGE CONDITION
6. HANDLE WITH CARE
7. REGARDING THE CLEANER USAGE
8. GUARANTEE TERMINATION
9. QUALIFICATION TESTS
10. RoHS
11. MTTF(Mean Time To Failure)
12. OUTGOING INSPECTION
13. TEST AND INSPECTION METHOD
14. SOLDER TYPE(MAKER)
15. PASS/REJECT STANDARD
16. RELIABILITY MEASUREMENT FLOW
17. ELECTRICAL CHARACTERISTICS MEASUREMENT
18. CHARACTERISTICS GRAPH
19. MODEL DIMENSION DETAILS

1.SCOPE

THIS SPECIFICATION IS APPLIED TO THE MICRO SPEAKER
(SG-1812C01) WHICH IS USED AS THE CELLULAR PORTABLE PRODUCT.

2.MECHANICAL LAYOUT & DIMENSIONS

SHOWN IN PAGE 9.

3.ELECTRICAL AND ACOUSTICAL CHARACTERISTICS (AT 20°C)

3.1 SOUND PRESSURE LEVEL

88± 3dB SPL AT 0.1W / 0.1m(AVERAGE AT 0.8k, 1.0k, 1.2k, 1.5kHz), 0dB=20μPa
INPUT VOLTAGE : 0.89V

3.2 NOM. /MAX. INPUT POWER : 0.8W/1.2W

3.3 VOICE COIL IMPEDANCE : 8Ω ± 15%(AT 1.2kHz, 1V)

3.4 RESONANCE FREQUENCY (Fo) : 720Hz ± 20%(AT 1.0 V)

3.5 FREQUENCY RANGE : Fo ~ 20 kHz

3.6 BUZZ AND RATTLES : SPEAKER UNIT MUST BE FREE AUDIBLE NOISE AT (2.52)V rms,SINE WAVE BETWEEN Fo AND 20kHz FREQUENCY.

4. GENERAL REQUIREMENTS

4.1 WEIGH : APPR. 1.05g ± 0.3g

4.2 OPERATING TEMPERATURE RANGE : -40°C TO +80°C

4.3 STORAGE TEMPERATURE RANGE : Temperature : 20 ± 2°C, Humidity : 60 ± 2°C

5. RECOMMEND STORAGE CONDITION

5.1 MANAGING AT THE NORMAL TEMPERATURE(20~25°C) WITH VENTILATION AND IT IS
WITHOUT A DIRECT RAY OF LIGHT.

5.2 DO NOT LOAD OVER 5 STEPS.

5.3 인두 온도 400°C ± 20°C에서 WIRE 탈피 부분 및 PCB 패턴이 2.5 SEC(MAX)를 보증.
(단, WIRE 피복부분은 온도 70°C ± 20°C에서 2.5 SEC(MAX)보증.

6. HANDLE WITH CARE

6.1 DO NOT DISMANTLE IT OPTIONALLY.

6.2 DO NOT KEEP THE FOLLOWING PLACES (OVERHEATING,FORCE IMPACT,HUMIDITY,
THE POWDER OF IRON, CORROSIVENESS GAS)

7.REGARDING THE CLEAR USAGE

7.1 PROHIBIT TO USE THE DETERGENT BECAUSE IT IS POSSIBLE TO GIVE AN INFLUENCE
AT THE PROPERTY OF PRODUCT

8.GUARANTEE TERMINATION

8.1 12 MONTHS AS PER THE CONDITION, Temperature : 20± 2°C, Humidity :60± 2°C

9. QUALIFICATION TESTS

- AFTER TEST

Measurement shall be done after 24 hours of conditioning at 20°C.

Sensitivity difference at 1kHz shall be within $\pm 3\text{dB}$ from initial value after test.

- HIGH TEMPERATURE TEST(IEC 60268-5-25.1)

High temperature : $+80^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Duration : 96 hours

- HUMIDITY TEST(IEC 60268-5-25.2)

Temperature : $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Relative humidity : 90%

Duration : 96 hours

- LOW TEMPERATURE TEST (IEC 60268-5-25.1)

Low temperature : $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Duration : 96 hours

- TEMPERATURE CYCLE TEST (IEC 60268-5-25.1)

Temperature : $-40^{\circ}\text{C} \pm 2^{\circ}\text{C} \leftrightarrow +80^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Duration : 4 hour 4 hour

Cycle : 5 cycles

- LOAD TEST (IEC 60268-5-17)

Input power : 0.8W(2.52V), WHITE

Duration : 96 hours

- DROP TEST(Under the unit) (ITSELF STIPULATIONS)

Height : 1.5M

Cycle : 24cycles

Drop face : iron plate

10. RoHS

10.1 SUITABILITY RoHS (A GUIDING THE PRINCIPLE TO RESTRICT THE USE OF HARMFUL SUBSTANCE)

11. MTTF(Mean Time To Failure)

11.1 NORMAL DEFECT OF LIFETIME AT 120 hours

12. OUTGOING INSPECTION

12.1 OUTWARD APPEARANCE : INFERIOR DIMENSION : KS Q ISO 2859-1~5

NOR.ONE TIME G- II AQL = 0.15

MIDDLE INFERIORITY : KS Q ISO 2859-1~5 NOR.ONE TIME, G- II AQL = 0.65

LIGHT INFERIORITY : KS Q 2859-1~5 NOR.ONE TIME G- II AQL = 1.5

12.2 DIMENSION : CHECKING INSPECTION : n=20, C=0

12.3 EFFICIENCY : INFERIOR DIMENSION : KS Q ISO 2859-1~5 NOR.ONE TIME G- II AQL = 0.15

MIDDLE INFERIORITY : KS Q ISO 2859-1~5 NOR. ONE TIME, G- II AQL = 0.65

12.4 DISASSEMBLY & INSPECTION : CHECKING INSPECTION n=5, c=0

13. TEST AND INSPECTION METHOD.

- 13.1 OUTWARD APPEARANCE : DAMAGE / A FOREIGN BODY / CONDITION OF SOLDERING/
P.C.B LOOSING / CONDITION OF MARKING / P.C.B EVENESS, ETC. ARE TO BE CONFIRMED.
- 13.2 DIMENSION : THE MEASUREMENT OF THE PARTS WHICH WAS DRAWING UP ON A
DRAWING OF THE PRODUCTS.
- 13.3 EFFICIENCY : SPL, COMSUMPTION ELECTRICITY, ELECTRIC WAVE TO BE CHECKED.

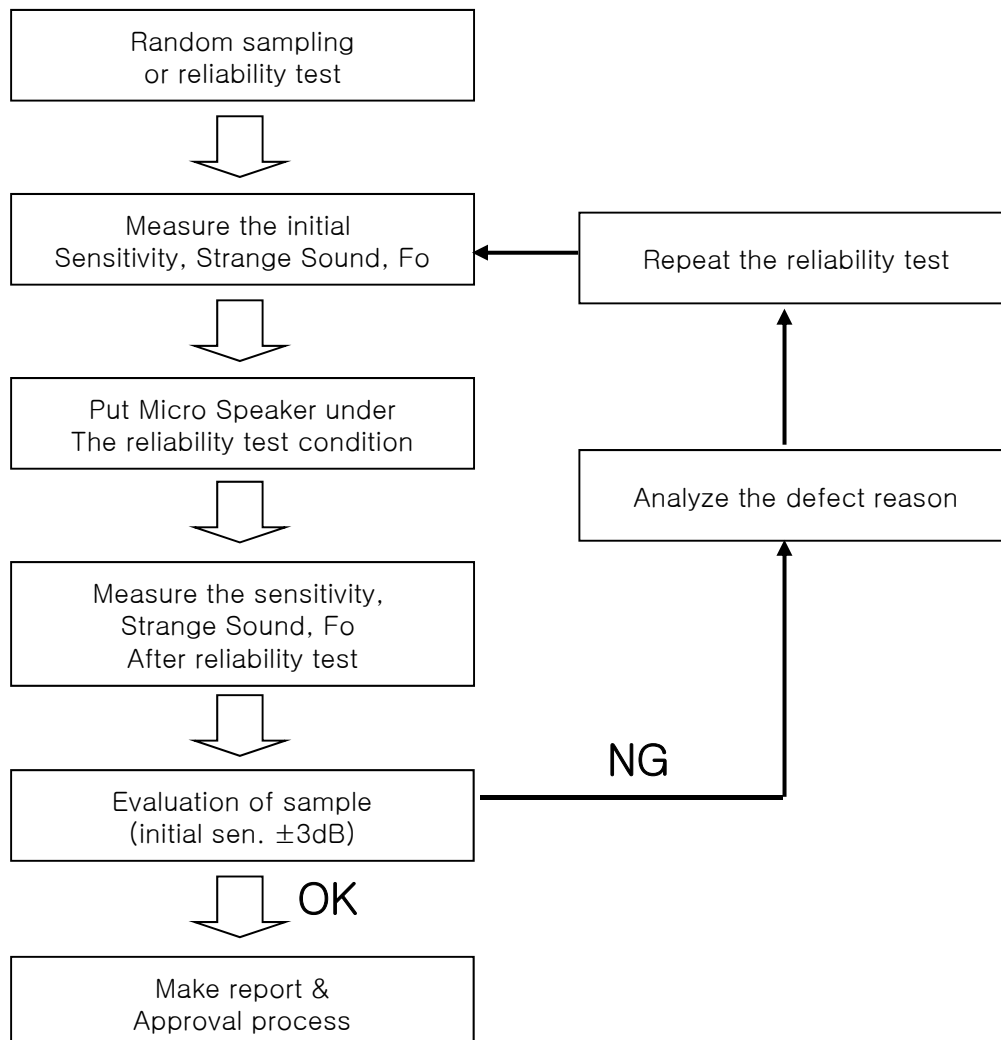
14. SOLER TYPE(MAKER)

- 14.1 PB-FREE : SR-34 SUPER(HSE02)

15. PASS/REJECT STANDARD

CRITERION FOR JUDGING	
OURWARD APPEARANCE	INFERIOR SOLDERING / INFERIOR MARKING NO A FOREIGN BODY OF TERMINAL & SPRING
	PCB LOOSING & DIRECTION DISTORTION. NO INFERIOR SOLDERING & DIMENSION INFERIORITY
DIMENSION	NO BURR / NO TRANSFORMATION / NO BREAKDOWN / NO INFERIOR MOLDING
	AS PER THE STANDARD OF DRAWING ON PRODUCT
EFFICIENCY	INSPECTION FOR SPL & THE CONDITION OF ELECTRIC WAVE TO BE OKAY
	NO DEFLECTION (WITHIN SHORT / SPL \pm 3dB)
	HIGH RESONANCE FREQUENCY NO ELECTRIC WAVE & DISTORTION

16. RELIABILITY MEASUREMENT FLOW



-Sample size

10pcs for each test

- Measurement item

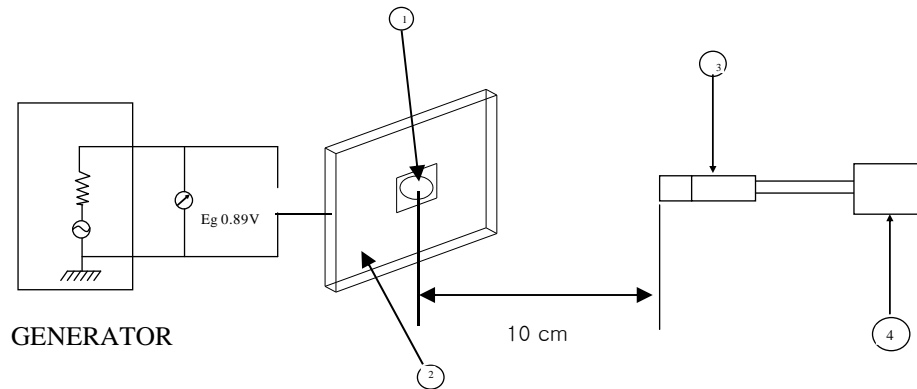
Sensitivity, Strange Sound, Fo

-Measurement item

After test, High temperature test, Humidity test, Vibration test,

Low temperature test, Temperature cycle test, Load test, Drop test

17. ELECTRICAL CHARACTERISTICS MEASUREMENT



1	Dynamic Speaker	SG-1812C01
2	Standard Baffle Box	45cm x 45cm
3	Microphone	B & K 4191
4	Analyzer	B & K 2012

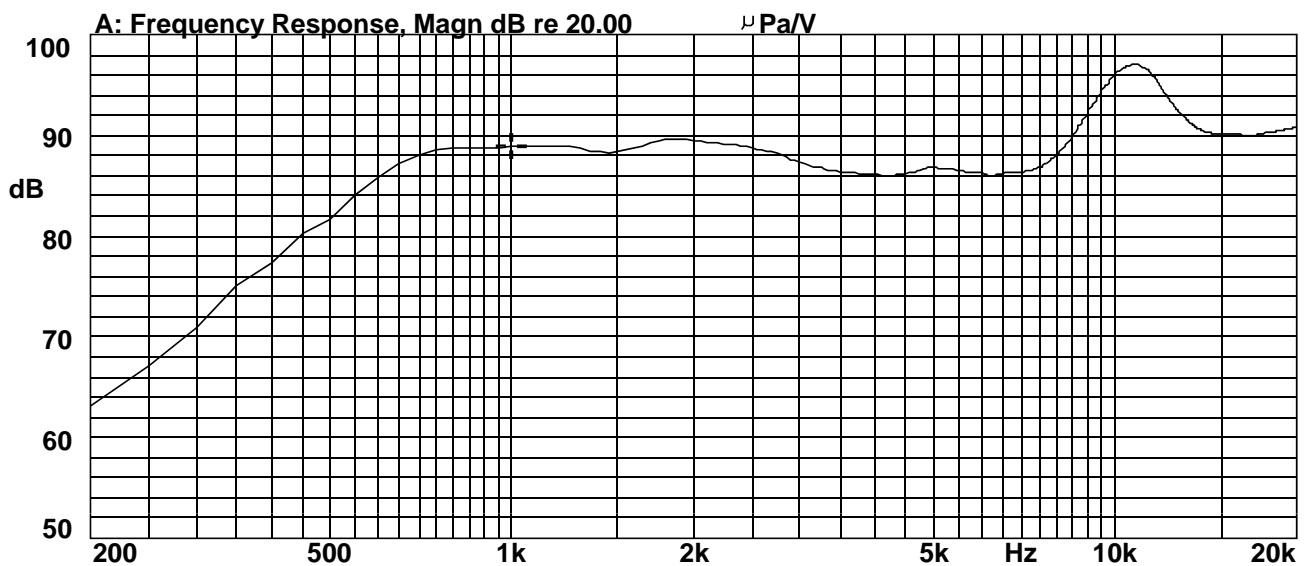
대기 조건 (IEC K60268-1)

온도: 15°C ~ 35°C

상대 습도: 25% ~ 75%

대기압: 86kPa ~ 106kPa (860mbar ~ 1060mbar)

18. CHARACTERISTICS GRAPH (MICRO SPEAKER)

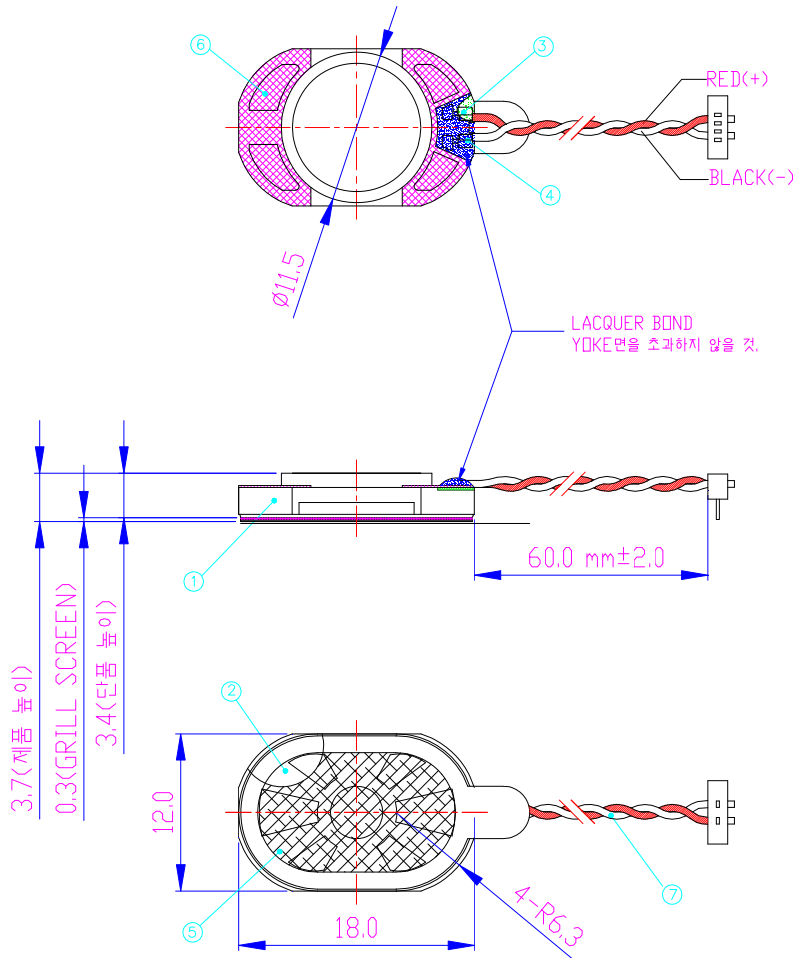
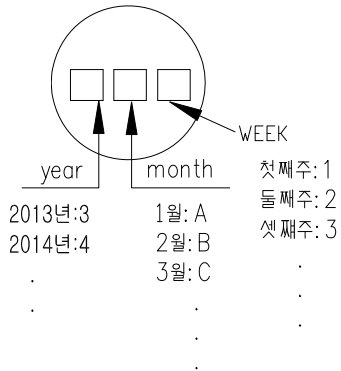


Mode: TSR



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MARKING STAMP



⑦	CONNECTOR WIRE	1	ELCO 8005/UL1571 AWG#32 (RED/BLACK)		
⑥	FRAME SCREEN	2	NET	#300	BLACK
⑤	GRILL SCREEN	1	FELT	2B-1	BLACK
④	BOND	1	LACQUER	-	-
③	TERMINAL	1	EPOXY	-	-
②	GRILL	1	SUS	-	-
①	FRAME	1	PBT	GLASS15%	-

①	REVISION	DATE	NOTE	SIGN	APPD.BY	NO.	PART NAME	Q'TY	MATERIAL	TREATMENT	REMARK
	SCALE	1 : 1	DESD.BY	CHE.D.BY	APPD.BY	DATE	2014-02-17				
	TOLERANCE	± 0.3	P.C.S		C.K.M	MODEL NO.	SG-1812C01				
	UNIT	mm	2014.02.17		2014.02.17	TITLE	APPEARANCE				
						DRAWING NO.					