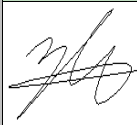
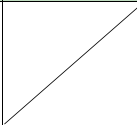


Revision Sheet

MODEL	K1000
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Product Specification	Mechanical Engineer	RF Engineer	Check by	Approve by
				
	2008-1-19		2008-1-19	2008-1-19
	PART NAME	ANTENNA		
	MODEL	K1000		
	CODE	-		
Attached Documents				
NO.	Table of Contents			REMARK (PAGE)
1	Revision sheet			1
2	Product Specification			1
3	Specifications			8
4	Electrical measured Data			3
5	Drawing			1
6				
7				
8				
9				
10				
11				
	TOTAL			14
Please approve this product with specifications. 2008. 1. 19 Address : #25-49 Juan5-Dong Nam-Ku, Inchon Korea Trade Name : SB TELCOM,. LTD. Substitute : President Eung - Soon, Chang 				



SB TELCOM CO., LTD

Antenna Specifications	MODEL	K1000		
Cover sheet	REV	00	PAGE	1/8

Antenna Specifications

MODEL : K1000
(ANTENNA)

#25-49 Juan5-Dong, Nam-Ku, Inchon, Korea



(주) 에스비텔콤
SB TELCOM CO., LTD.



SB TELCOM CO., LTD

Antenna Specifications	MODEL	K1000		
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Antenna Specifications	MODEL	K1000		
1. Technical Properties	REV	00	PAGE	3/8

1. Technical Properties

1.1 General Properties

MODEL	NSB0694-0000850/1900-TL016BK00
ANTENNA TYPE	INTENNA
APPLICATIONS	GSM850 / GSM900 / DCS1800 / PCS1900

1.2 Electrical Properties

FREQUENCY RANGE	GSM850	824 ~ 894 MHz
	GSM900	880 ~ 960 MHz
	DCS1800	1710 ~ 1880 MHz
	PCS1900	1850 ~ 1990 MHz
IMPEDANCE(NOMINAL)	50Ω	
V.S.W.R	LESS THAN 2.0 : 1	
RADIATION PATTERN	OMNI-DIRECTIONAL	
POLARIZATION	VERTICAL	
Max Gain	850 Band: 2.1dBi / 1900 Band: 0.21dBi	

1.3 Mechanical Properties

SIZE	33.0mm × 17.8mm ×8.25mm
TEMPERATURE	-40 ℃ ~ +85℃
CONNECTOR TYPE	PIN CONTACT TYPE



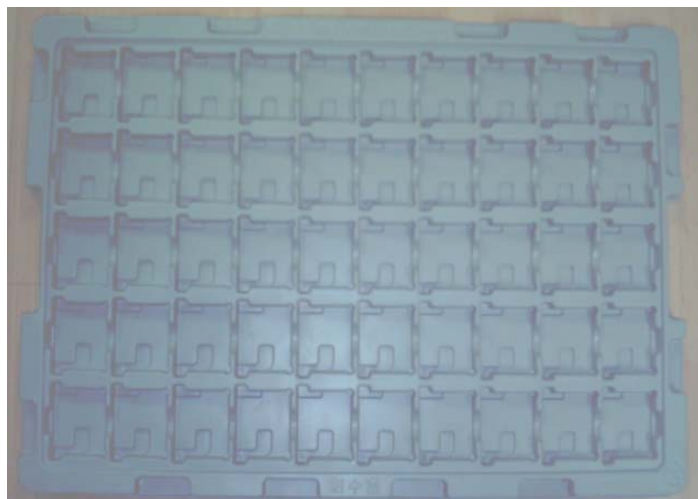
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Antenna Specifications	MODEL	K1000		
1. Technical Properties	REV	00	PAGE	4/8

1.4 Packing

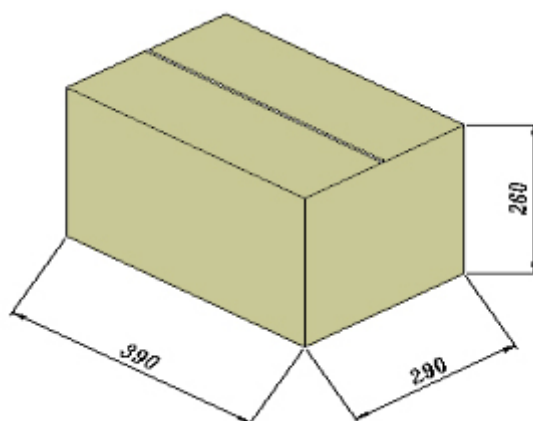
1) Packing Condition

50ea of antennas are placed on a pad (375 x 270 x 17) according to FIG. 1



(FIG. 1)

A box contains 20 PAD and 1,000 antennas be packing($20 \times 50 = 1,000$) according to FIG .2



(FIG. 2)

2) Remarks

A change of packing material shall be executed with mutual approval between buyer and supplier.

Antenna Specifications	MODEL	K1000		
2. Electrical Properties	REV	00	PAGE	5/8

2. Electrical Properties

2.1 Frequency Range
defined in section 1.2

2.2 Impedance

1) Nominal Value : 50 Ω

2) Method

To measure the appropriate impedance with the frequency desired after connecting a handset with the antenna installed to the reflection point from the network analyzer to FIG 3.



(FIG.3)



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Antenna Specifications	MODEL	K1000		
3. Mechanical Properties	REV	00	PAGE	6/8

3. Mechanical Properties

3.1 Dimensions

The device dimensions shall conform to "DRAWINGS"

3.2 Drop Test

The antenna is attached to the handset or an equivalent test fixture. The handset is dropped with the antenna downward from the height of 1.5m onto a steel panel with thickness of 10mm prepared on the ground.



Antenna Specifications	MODEL	K1000		
4. Environmental Resistance Properties	REV	00	PAGE	7/8

4. Environmental Resistance Properties

4.1 Examination Environmental Condition

The antenna is placed at temperature $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and humidity 25%~80%(Under 55% RH) for executing all testes (Electrical, Mechanical and Environmental Tests).

4.2 Humidity

Temperature : $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Humidity : $85\%\text{RH} \pm 2$

The antenna is placed in a climatic chamber for 120 hours.

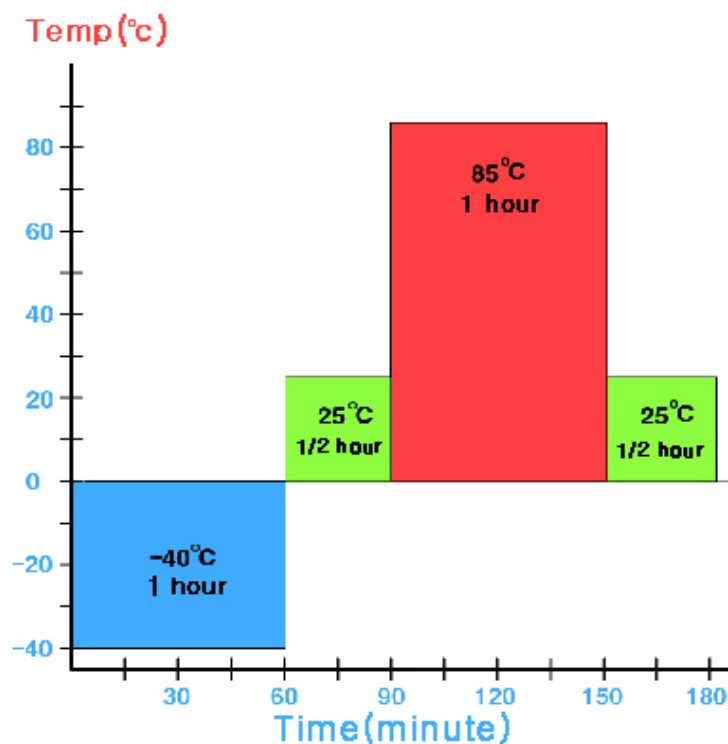
It not must be above in appearance and function.

4.3 Temperature Cycling

The antenna is placed in a climate chamber. The temperature is cycled as follows:

The temperature is kept constant at -40°C for 1 hour, kept constant at $+25^{\circ}\text{C}$ for 1/2 hour, kept constant at $+85^{\circ}\text{C}$ for 1 hour, kept at $+25^{\circ}\text{C}$ for 1/2 hour.

This procedure is repeated 5 times. The procedures are executed based on KSC-0222.



(FIG.5)

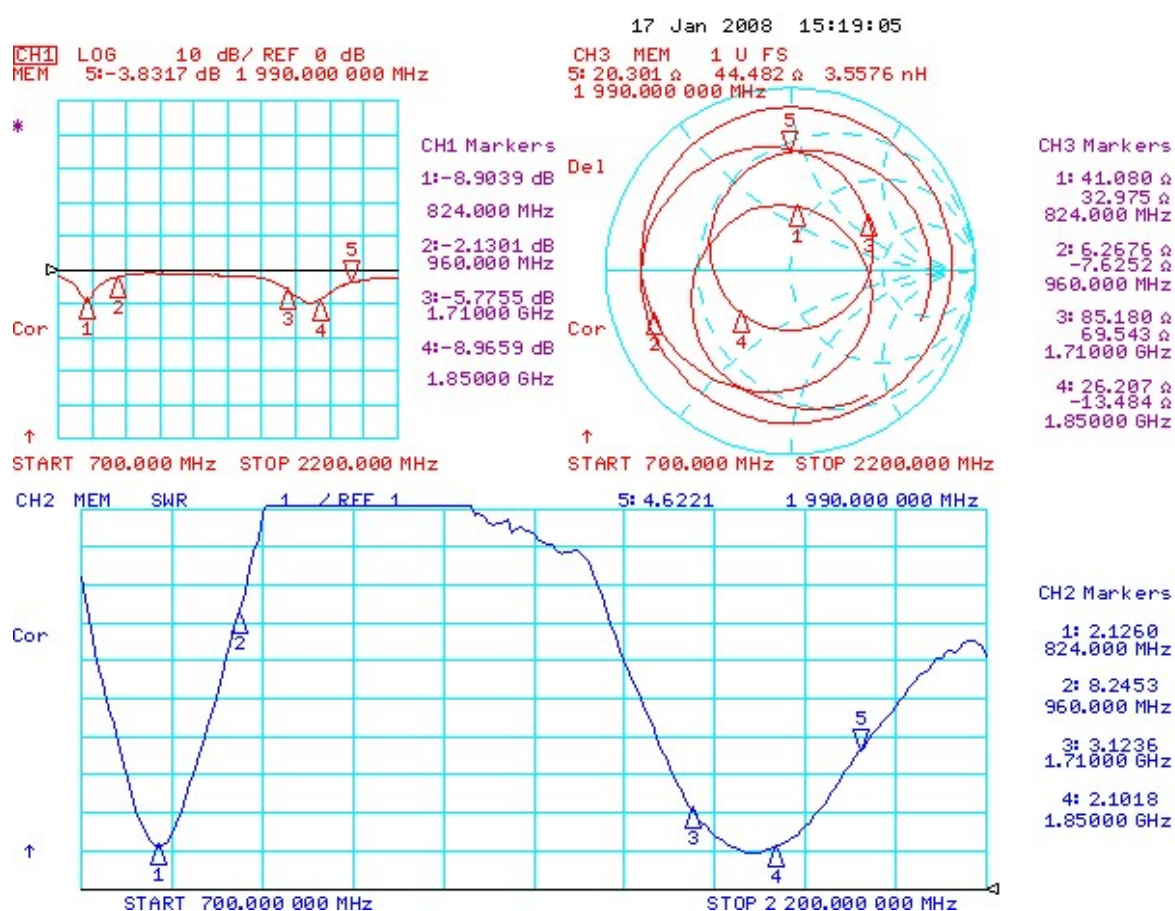


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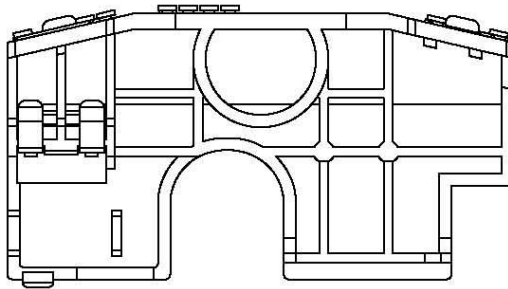
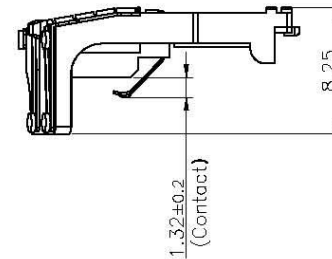
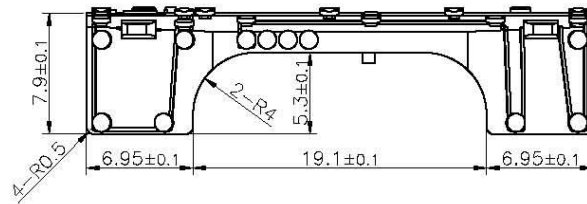
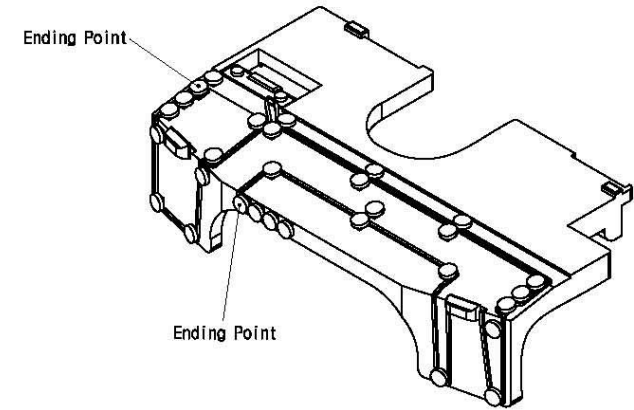
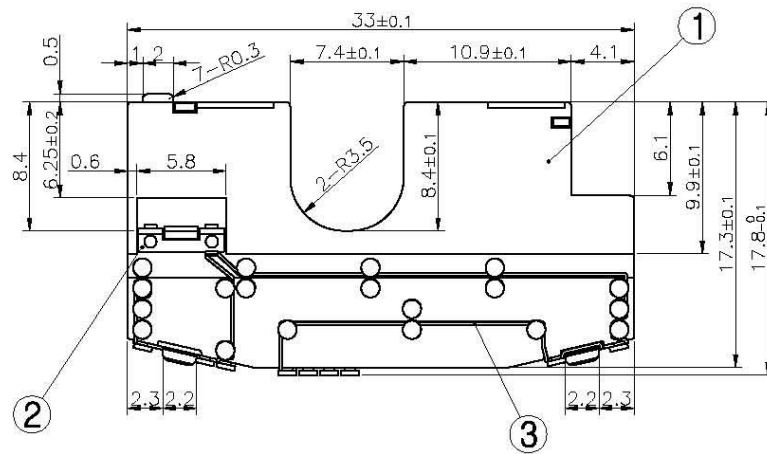
Antenna Specifications	MODEL	K1000		
4. Environmental Resistance Properties	REV	00	PAGE	8/8
4.4 Acid proof examination Acidity : PH-4.6 Time : 48 Hr Leaving alone It not must be above in appearance and function. 4.5 Salt spray test Temperature : 35℃ ±2℃ Salinity : with 5% 72Hr it examines It not must be above in appearance and function.				



Antenna Characteristic Data	MODEL	K1000		
Data	REV	00	PAGE	



AMEND	MFK.	DATE	REVISION	SIGN



3	COL-0001	RADIATOR	COIL(Φ0.2mm)	1	-
2	PRS-0145	CONTACT PIN	SUS301 1/2H(0.15t)	1	NI PLATED
1	NSB-0694	ANTENNA BASE	PC(HF-1023IM)	1	-
NO.	PARTS NO.	NAME	MATERIAL	Q'TY.	REMARKS
DRAW BY		CHECK BY	APPROVE BY	SCALE	UNIT
				3/1	mm
BUYER NAME		MODEL NO.		MODEL NAME	
TEL IAN		NSB0694-0000850/1900-TL016BK00		K1000	