

<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC No: GS-BF-EN-057</b>
	<b>ANTENNA RF SPRING SMT TYPE</b>	<b>REV:1 Page 1 of 4</b>

## 1. Scope

This specification covers performance, tests and quality requirements of the ANTENNA RF SPRING SMT TYPE.

## 2. APPLICABLE DOCUMENTS AND SPECIFICATIONS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of the specification and the product drawing, the product drawing shall take precedence.. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

## 3. TECHNICAL PARAMETERS

3.1 Impedance: 50 mΩ.

3.2 V.S.W.R.: 1.5Max.(DC~3GHz)

3.3 Insertion Loss: 0.6dBMax.(DC~3GHz)

3.4 Temperature:

Operating : -20°C ~ +70°C

Storage : -30°C ~ +70°C

## 4. PERFORMANCE

### 4.1 Appearance Requirements

Item	Description	Test Condition	Requirement
4.1.1	Visual and dimension inspections	Visual, dimension and functional per applicable quality inspection plan.	Meets requirements of product drawing. No physical damage.

### 4.2 Electrical Requirements

Item	Description	Test Condition	Requirement
4.2.1	Contact Resistance (Low Level)	Mated connector: apply a maximum voltage of 20mV and a current of 100mA. Per EIA-364-23B	The initial: 50 mΩ Max; ΔR=30 mΩ Max changed after environmental exposure

### 4.3 Mechanical Requirements

Item	Description	Test Condition	Requirement
4.3.1	Pre-load Force	Press the Contact Point Till it Deflect, Per EIA-364-09B (Testing by the single pin)	Durable positive forces 3000 times greater than 40 gf fatigue is less than 0.15mm (Testing by the single pin)

<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC No: GS-BF-EN-057</b>
	<b>ANTENNA RF SPRING SMT TYPE</b>	<b>REV:1 Page 2 of 4</b>

4.3.2	Durability	Press and Replace are repeated 100 cycles with connector at the speed rate of 450~550 cycles/hour, Per EIA-364-09B	Appearance: no damage Contact Resistance $\Delta R=30\text{ m}\Omega$ maximum
-------	------------	--	---

#### 4.4 Environmental Requirements

Item	Description	Test Condition	Requirement
4.4.1	High relative Humidity exposure	Mated and exposed to the condition of 60°C, 80% RH, 96hours. Recovery time 1~2hours. Per EIA-364-31	Appearance: no damage Contact Resistance $\Delta R=30\text{ m}\Omega$ maximum
4.4.2	Thermal shock	The connector shell be mated and exposed to the following condition for 25 cycles continuous. 1 cycle: a) -30±3°C for 30 minutes. b) 70±2°C for 30 minutes. Transit time shall be within 5minutes, recovery time 1~2 hours. Per EIA-364-32	Appearance: no damage Contact Resistance $\Delta R=30\text{ m}\Omega$ maximum

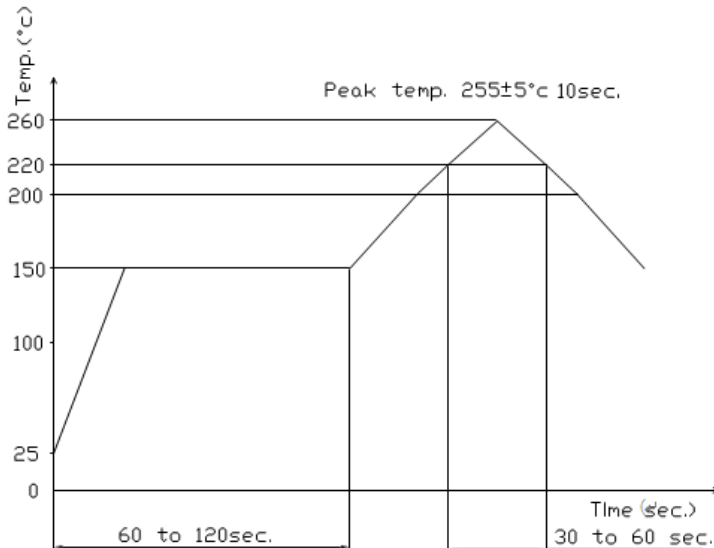
Item	Description	Test Condition	Requirement
4.4.3	Salt spray	The connector shall be mated and exposed to the following salt mist conditions. At the completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. Concentration : 5±1% Spray time: 24 hours Temperature: 35±2°C	Appearance: no damage Contact Resistance $\Delta R=30\text{ m}\Omega$ maximum
4.4.4	Solder ability	Dip solder tails into the molten solder at 245±5°C for 5±0.5 sec.	Solder coverage: 95% Minimum

<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC No: GS-BF-EN-057</b>
	<b>ANTENNA RF SPRING SMT TYPE</b>	<b>REV:1 Page 3 of 4</b>

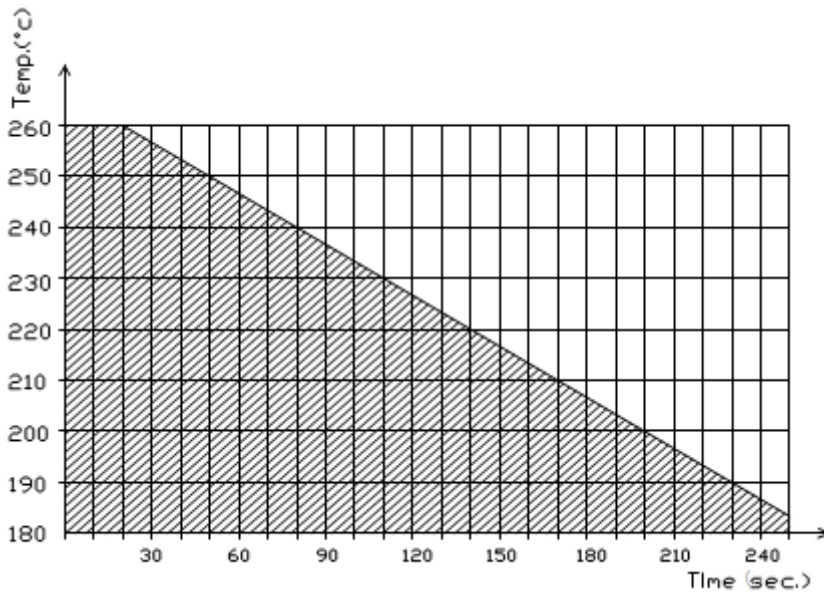
4.4.5	Resistance to soldering Reflow Heat	Infrared the reflow condition of 5.1	No damage after 2 times of reflow Measurement after 24±2 hours
-------	-------------------------------------	--------------------------------------	---

## 5. SMT TEMPERATURE CURVE

### 5.1 Recommended TEM.&Time relative curve of RE-FLOW.



### 5.2 Extremed TEM.&Time curve of RE-FLOW.



## 6. STORAGE CONDITION

<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC No: GS-BF-EN-057</b>
	<b>ANTENNA RF SPRING SMT TYPE</b>	<b>REV:1 Page 4 of 4</b>

Relative Humidity: 15 ~ 85 % RH

Life : Use this product within 6 months after receipt. Check the terminal solderability before use if the product has been stored for more than 6 months.

## 7. TEST SEQUENCE AND SAMPLE QUANTITY

Item		Group									
		A	B	C	D	E	F	G	H		
4.1.1	Visual and dimensional inspections	1,7	1,5	1,5	1,5	1,3	1,3	1,4	1,4		
4.2.1	Contact Resistance	2,6	2,4	2,4	2,4						
4.3.1	Pre-load Force	3									
4.3.2	Force at Max. Deflection	4									
4.3.3	Durability	5									
4.4.1	High relative Humidity exposure		3						3		
4.4.2	Thermal shock			3							
4.4.3	Salt spray				3			3			
4.4.4	Solder ability					2		2	2		
4.4.5	Resistance to soldering Reflow Heat						2				
	Sample QTY	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs	5pcs		

**APPROVED BY:** \_\_\_\_\_ **CHECKED BY:** \_\_\_\_\_ **VERIFIED:** \_\_\_\_\_