

<b>ENGINEERING DEPT</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPECNo: GS-BF-EN-040</b>
	<b>FOR SIM Card SERIES CONNECTOR</b>	<b>REV:1      Page 1 of 4</b>

### **1.0 SCOPE**

This Product Specification covers the SIM Card Series connector.

### **2.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS**

See sales drawings and other sections of this specification for the relevant reference documents. In cases where the specification differs from the drawings, the drawings take precedence.

### **3.0 DESIGN AND CONSTRUCTION**

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing

### **4.0 MATERIALS**

See attached drawings

### **5.0 RATINGS**

Rated current: 0.5A max

Rated voltage: 30 V

Operating Temperature: -30 °C to +80°C

Storage Temperature: -5 °C to +80°C

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## 6. ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
6.1	Contact Resistance	Mate connectors with dry circuit(20mV,100mA Max)at minimum deflection Spec: EIA-364-23B	Less than 30mΩ
6.2	Insulation Resistance	When applied DC 500V between adjacent terminal or ground Spec: EIA-364-21C	More than 1000MΩ
6.3	Dielectric strength	When applied AC 500V 1 minute between adjacent terminal Spec: EIA-364-23B	No change
6.4	Temperature Rise	Mated connectors :measure the temperature rise at the rated current0.5A Spec: EIA 364-70A	Temperature rise: 30°C Max

## 7.MECHANICAL REQUIREMENT

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
7.1	Durability	Operation Speed: 200 cycles/H. Durability Cycles: 5000 Cycle SPEC: EIA-364-9C	No mechanical damage Contact Resistance 100mΩMax
7.2	Terminal Retention Force	Axial pullout force on the terminal in the housing at a rate of 25±3mm/Min per minute Spec: EIA-364-13B	3N Min
7.3	Mating and Unmating force	Measures force necessary to mate connector assemblies at a rate of 25±3mm/Min Spec: EIA-364-13B	Insertion Force 30N Max Withdrawal Fore 3N Min

### 8. ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT										
8.1	Cold Resistance	Solder connectors on PCB ,expose to $-40\pm 3^{\circ}\text{C}$ for 48 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2 hours, after which the specified measurements shall be performed.	No mechanical damage Contact Resistance 100mΩMax										
8.2	Thermal Shock	<p>Samples shall be placed in the test chamber with the test condition for 5 cycles</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">Temperature(<math>^{\circ}\text{C}</math>)</td> <td style="text-align: center;">-55</td> <td style="text-align: center;">+25</td> <td style="text-align: center;">+85</td> <td style="text-align: center;">+25</td> </tr> <tr> <td style="text-align: center;">Time(minute)</td> <td style="text-align: center;">30</td> <td style="text-align: center;">5</td> <td style="text-align: center;">30</td> <td style="text-align: center;">5</td> </tr> </table> <p>Spec:EIA 364-32A</p>	Temperature( $^{\circ}\text{C}$ )	-55	+25	+85	+25	Time(minute)	30	5	30	5	No evidence of physical damage Contact Resistance 100mΩMax Insulation Resistance 500MΩMin
Temperature( $^{\circ}\text{C}$ )	-55	+25	+85	+25									
Time(minute)	30	5	30	5									
8.3	Humidity Life	The connectors shall be mated and exposed to the condition of $40\pm 2^{\circ}\text{C}$ with 90~95% Humidity for 96 hour; Recovery time 1~2 hours Spec: EIA-364-31B	No evidence of physical damage Contact Resistance 100mΩMax Insulation Resistance 500MΩMin										
8.4	Temperature Life(Heat Aging)	Mated Connector $85^{\circ}\text{C}$ , 96 hours Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2 hours, Spec: EIA-364-17B.	No mechanical damage Contact resistance 100 mΩ max.										
8.5	Solder ability	The surfaces to be tested shall be immersed in flux for a minimum of $5\pm 0.5$ seconds; the temperature of the solder bath shall be maintained as measured below the surface on the solder at $235^{\circ}\text{C}\pm 2^{\circ}\text{C}$ Spec: EIA 364-52	No mechanical damage coverage: 95%										

ITEM	DESCRIPTION	TEST CONDITIN	REQUIREMENT
8.6	Salt Spray	Subject mated connectors to $35\pm 2^{\circ}\text{C}$ and 5+/-1% salt condition for 48hours. After test, rinse the sample with water and recondition the room temperature for 2 hour Spec: EIA-364-26B	No detrimental corrosion allowed in contact area. contact resistance $\leq 100\text{ m}\Omega$

