

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

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	Samples shall be placed in the test chamber with the test condition for 5 cycles <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">Temperature($^{\circ}\text{C}$)</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> Spec:EIA 364-32A	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°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 ± 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 $\leq 100\text{ m}\Omega$

