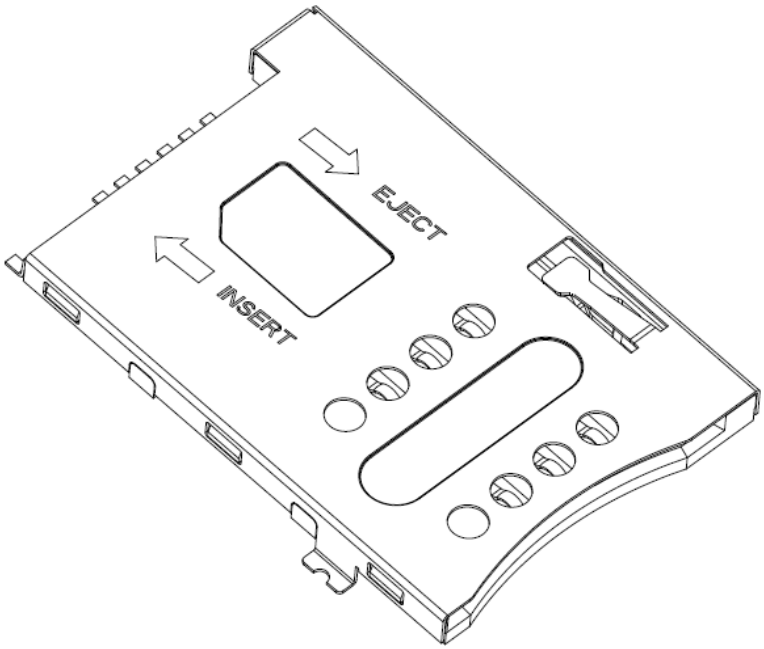
PRODUCT SPECIFICATION



育鼎精密工業股份有限公司
ACRON PRECISION INDUSTRIAL CO., LTD
桃園縣八德市廣德里新興路 55 號
No.55, SinSing Road., Bade City, Taoyuan County 334, Taiwan(R.O.C)
TEL : 886-3-3629889 FAX : 886-3-3664917

□東莞睦永電子有限公司 (AMMI)	■東莞育鼎電子有限公司 (ACRON)	□東莞愷興電子科技電子有限公司 (NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	SCM15-A3-06011	SHEET No
A	EC No: DATE:	2012/04/16	PRODUCT NAME	SIM CARD CONN., PUSH-PUSH FUNTION , 6 POSITION TOP MOUNT, SMY TYPE	1 of 6

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-SCM-0005	JEFF.YANG	KENNY.CHEN	DEVIN.CHEN

1.0 SCOPE

This Product Specification covers the performance requirements for the SIM Card connector (Push Push Type, 6 Pin, SMT, 2.54mm Pitch Profile).

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

6 pos. 2.54mm pitch sim card connector **SCM15** series

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See appropriate sales drawings for details on dimensions ,materials , plating and markings.

2.3 SAFETY AGENCY APPROVALS

See appropriate sales drawings

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Please refer to the Sales Drawings , and other sections of this Specification for specific references to applicable documents and specifications. In cases where the Product Specification differs from the Sales Drawings, the Sales Drawing will take precedence

EIA-364 TEST METHODS FOR ELECTRICAL CONNECTORS

4.0 RATINGS

4.1 VOLTAGE

5 Volts AC(RMS) Max.

4.2 CURRENT

0.5 Amp DC

4.3 TEMPERATURE

Operating Temperature Range: - 40°C to + 60°C
Storage Temperature Range: - 40°C to + 85°C

5.0 PERFORMANCE

Item	Test Items	Requirement	Procedures
1	**Examination of Product**	Product shall meet requirements of product drawing and specification.	Visual, dimensional and fumtional inspection as per quality plan.
Electrical Requirements			
2	**Contact Resistance (LLCR)**	75 mΩ Max(Initial)	Mate connectors: apply a maximum voltage of 20mV and a current of 100mA EIA 364-23A;
3	**Insulation Resistance**	500 MΩ Min.	After 500 VDC for 1 minute, measure the insulation resistance between the adjacent contacts of mated and unmated connector assemblies. EIA 364-21C
4	**Dielectric Withstanding Voltage**	No creeping discharge or flash over. Current leakage:0.5A Max.	Mate connectors and apply 300V AC for 1 minute EIA 364-20B
5	**Current Rating**	Temperature rise: 30℃ Max.	Apply the rated current to connector to connector EIA 364-70
Mechanical Requirements			
6	**Insertion Force**	13.8 N Max.	Using a push-push gauge, perform insertion and removal at a speed of 25±3 mm/min.
7	**Durability**	△R: 20 milliohms Max (change from initial)	Operation Speed：500 cycles/hr. Durability Cycles：5000 Cycles (Compress pin until Maximum displacement) EIA 364-09A.
8	**Vibration**	No evidence of physical damage Contact Resistance≦100mΩ Current discontinuity ≦0.1μs at end of test	Subject mated connectors to 10 to 55 to 10 Hz frequency span over 1 minute at a 1.52mm amplitude for a total of 15 minutes. Test to be conducted on 3 mutually perpendicular planes. 100mA Max. EIA 364-28

9	**Mechanical Shock**	No evidence of physical damage Contact Resistance≦100mΩ Current discontinuity ≦1μs at end of test	Apply DC and 1mA to all contacts and subject the the part to a 294 m/s2 half sine wave acceleration for 11 ms. Three shocks to be applied in both directions. EIA 364-27B
Environmental Requirements			
10	**Thermal Shock**	No evidence of physical damage, discharge, flashes or corrosion in contact areas. Contact Resistance ≦ 100 mΩ Insulation Resistance ≧100 MΩ	Mate Connector and perform the following thermal cycle: -40℃±3℃ for 30 minutes. +5℃to +35℃ for 5 minutes +85℃to -2℃ for 30 minutes +5℃to +35℃ for 5 minutes Repeat for 5 cycles EIA 364-32C
11	**Humidity Test**		Mate connector and expose to temperature of 40±2℃ with 95% RH for 96 hours then place in ambient temperature for 1 to 2 hrs EIA 364-31A
12	**Salt Water Spray**		Subject mated connectors to 35±2℃ and 5±1% salt condition for 36hours. EIA 364-26B
13	**Temperaure Life(High)**		Subject mated connectors to 85±2℃ for 250 hours. EIA 364-17B
14	**Solderability**	95% of immersed area must show no voids of pin holes.	Dip solders tails into molten solder, held at a temperature of 245±5℃ for 5±0.5 second. EIA 364-52
15	**Resistance to Reflow Soldering Heat**	No evidence of physical damage or abnormalities adversely affecting performance.	Mount connector, place in reflow oven and expose to the temperature profiles shown in fig 1.0

6.0 RECOMMENDED REFLOW PROFILE

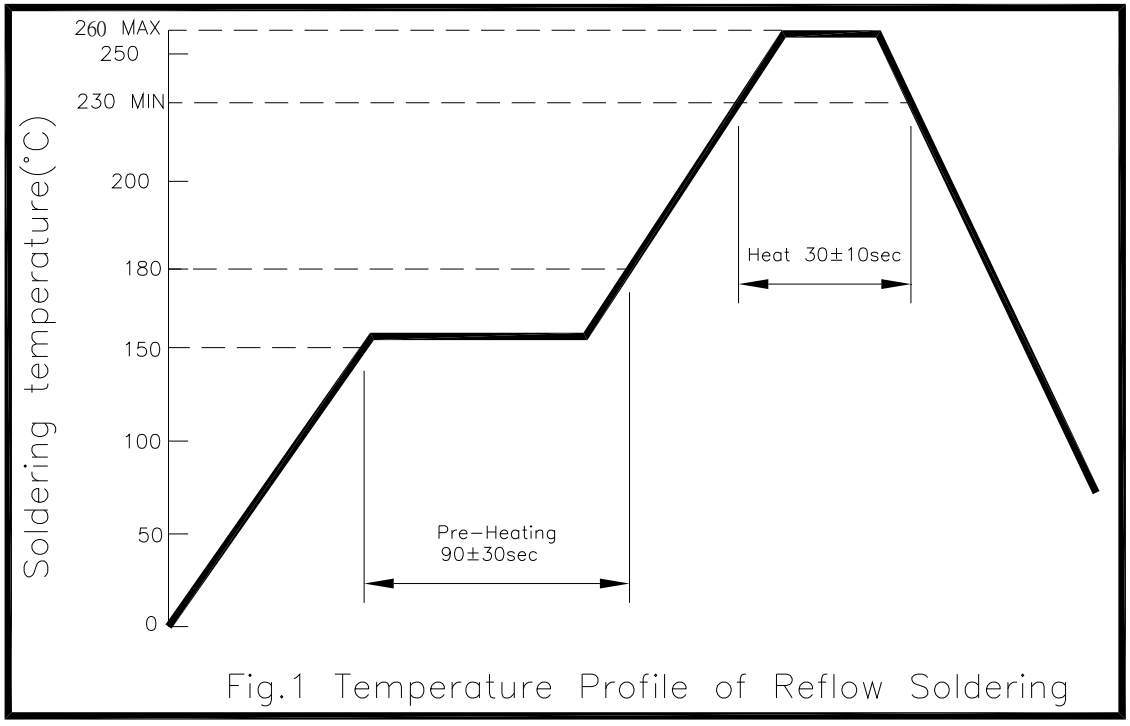


Fig.1 Temperature Profile of Reflow Soldering

7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

Test Items	Test Group							
	A	B	C	D	E	F	G	H
	Test Sequence							
Examination of product	1,7	1,10	1,6	1,9	1,9	1,5	1,3	1,3
Contact Resistance (LLCR)	3,6	2,7	2,4	2,6	2,6	2,4		
Insulation Resistance		3,8		3,7	3,7			
Dielectric Withstanding Voltage		4,9		4,8	4,8			
Current Rating			5					
Insertion Force	2,5							
Durability	4							
Vibration		5						
Mechanical Shock		6						
Thermal Shock				5				
Humidity Test					5			
Salt Water Spray						3		
Temperature Life			3					
Solderability							2	
Resistance to Reflow Soldering Heat.								2
Sample Q'TY	5	5	5	5	5	5	5	5