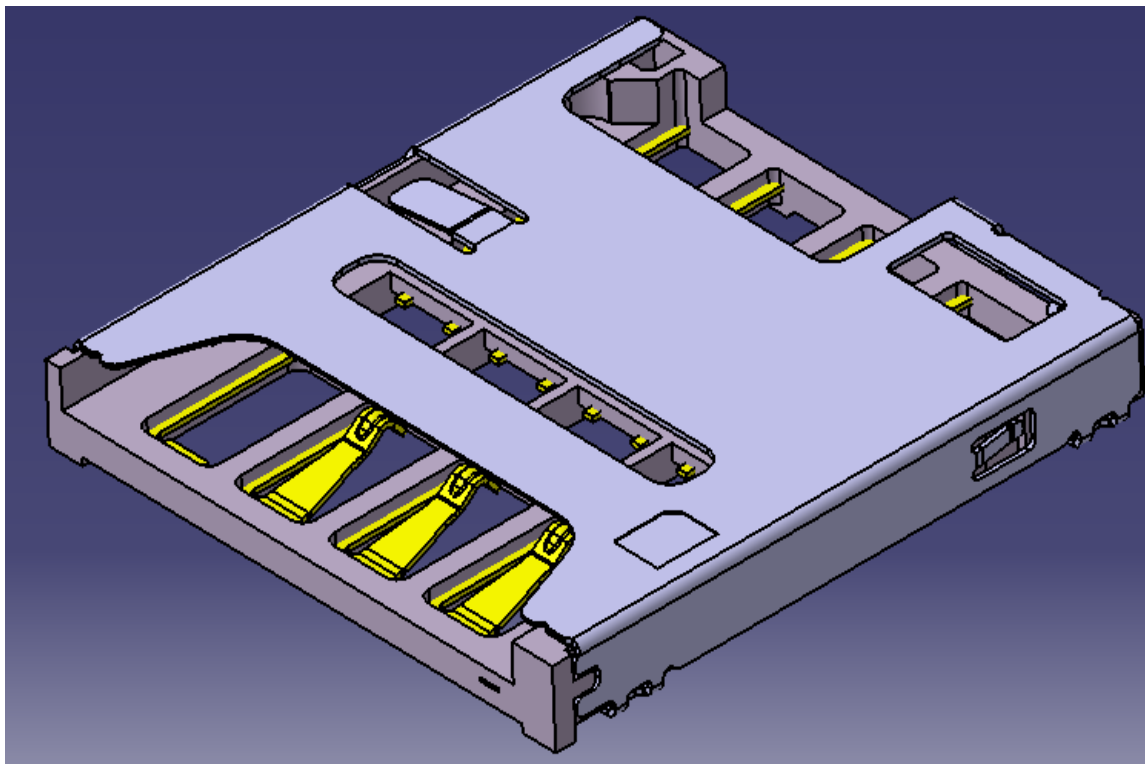




# PRODUCT SPECIFICATION



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(NUCONN)

REVISION:	ECR/ECN INFORMATION:		PRODUCT NO	SCM 30 Series	SHEET No
C	EC No:	NEW SPEC	PRODUCT NAME	MICRO SIM NON PUSH TYPE H=1.90mm CONNECTOR	1 of 5
	DATE:	2014/08/01			
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# PRODUCT SPECIFICATION

## 1.0 SCOPE

This Product Specification covers the performance requirements for 6 pos. 2.54mm sim card connector series. .

## 2.0 PRODUCT DESCRIPTION

### 2.1 PRODUCT NAME AND SERIES NUMBER(S)

Micro SIM Non push type ,H=1.90mm With detect switch  
SCM 30 **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

50 Volts DC

### 4.2 CURRENT

0.2 A Max.

### 4.3 TEMPERATURE

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

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

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## 5.0 PERFORMANCE

Item	Test Items	Requirement	Procedures
1	Examination of Product	Meets requirements of product drawing. No physical damage.	Specimens shall be investigated by 10x (or higher) microscope.

### Electrical Requirements

2	Contact Resistance (LLCR)	Contact Pin: 100 milliohms Max(Initial) Switch resistance 500 milliohms Max(Initial)	Subject mated contacts assembled in housing to 20mV maximum open circuit at 100mA maximum. EIA 364-23;
3	Insulation Resistance	Test Before: 1000 Mega Ohm Min. Test After: 500 Mega Ohm Min.	After 500 VDC for 1 minute, measure the insulation resistance between the adjacent contacts of mated and unmated connector assemblies. EIA 364-21
4	Dielectric Withstanding Voltage	No breakdown; current leakage < 5mA	Apply a voltage 500 V DC for 1 minute between adjacent terminals and between terminals to ground. EIA 364-20
5	Current Rating	Temperature rise: 30°C Max.	Apply the rated current to connector, EIA 364-70

### Mechanical Requirements

6	Durability	$\Delta R$ : 30 milliohms Max (change from initial)	Operation Speed: 500 cycles/hr. Durability Cycles: 5000 Cycles EIA 364-09C
7	Vibration	$\Delta R$ : 30 milliohms Max (change from initial) & No electrical discontinuity greater than 1 $\mu$ sec.	Subject mated connectors to 10-500 Hz traversed in 1minutes at 1.52mm amplitude for 2 Hour each of 3 mutually perpendicular planes.98.1 m/s <sup>2</sup> EIA 364-28D
8	Mechanical Shock	$\Delta R$ : 30 milliohms Max (change from initial) & No electrical discontinuity greater than 1 $\mu$ sec.	Accelerate Velocity: 490m/ s <sup>2</sup> (50G) Waveform: 11ms Half-sine shock Velocity Change: 3.4m/s No. of Drops: 3 drops each to normal and reversed directions of X,Y and Z axes, totally 18 drops, passing 1mA current during the test. EIA 364-27B

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9	Normal Force	0.2 N/pin Min.	Test speed of 25 mm/minute. Test distance 0.22 mm from housing surface. <a href="#">EIA-364-04</a>
10	Insertion/Extraction force	Insertion Force : Initial : 30N Max. After Test : 30N Max. Extraction Force : Initial : 1.0N~30N After Test : 1.0N ~30N	Insertion and Extraction at speed of 25 mm/minute. Except influence of the force for eject and module lock mechanism.
11	Thermal Shock	$\Delta R$ : 30 milliohms Max. (change from initial) & Appearance: no damage	Place free situation samples in chamber with 10 cycles, and one duration is -55°C/(0.5h) → 25°C/(5minutes Max.) → 85°C/(0.5h) → 25°C/(5minutes Max.). <a href="#">EIA-364-32C</a>
<b>Environment Requirements</b>			
12	Humidity	$\Delta R$ : 30 milliohms Max. (change from initial) & Appearance: no damage	Test mated connector in chamber and expose to a temperature of 40 ± 2°C with a relative humidity of 90% -95%RH for 96 hours. Note: Remove surface moisture and air dry for 1 hour prior to measurements. <a href="#">EIA 364-31B</a>
13	Solder ability	Solder coverage: 95% MINIMUM	Dip solder tails into the molten solder(held at 245±5°C for 3 ±0.5 sec. <a href="#">EIA 364-52</a>
14	Solder Heat Resistance	Visual: No Damage to insulator material	Place connector applicable P.C.B. footprint and float on solder bath at 260 ± 5° for 30 - 35 seconds Reference to following Table A and Fig.1. <a href="#">EIA 364-56</a>
15	Salt Spray	$\Delta R$ : 30 milliohms Max. (change from initial) & Appearance: no damage	Duration: 48 hours exposure; Atmosphere: salt spray from a 5% solution. Temperature: 35 +1/-2°C <a href="#">EIA 364-26B</a>
16	Heat Temperature Life	$\Delta R$ : 30 milliohms Max. (change from initial) & Appearance: no damage	Simulate mated situation samples at 70°C for 250 hours. <a href="#">EIA 364-17B</a>

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17	<b>Cold Temperature Life</b>	$\Delta R$ : 30 milliohms Max. (change from initial) & Appearance: no damage	Simulate mated situation samples at -20°C for 250 hours <a href="#">EIA 364-17B</a>
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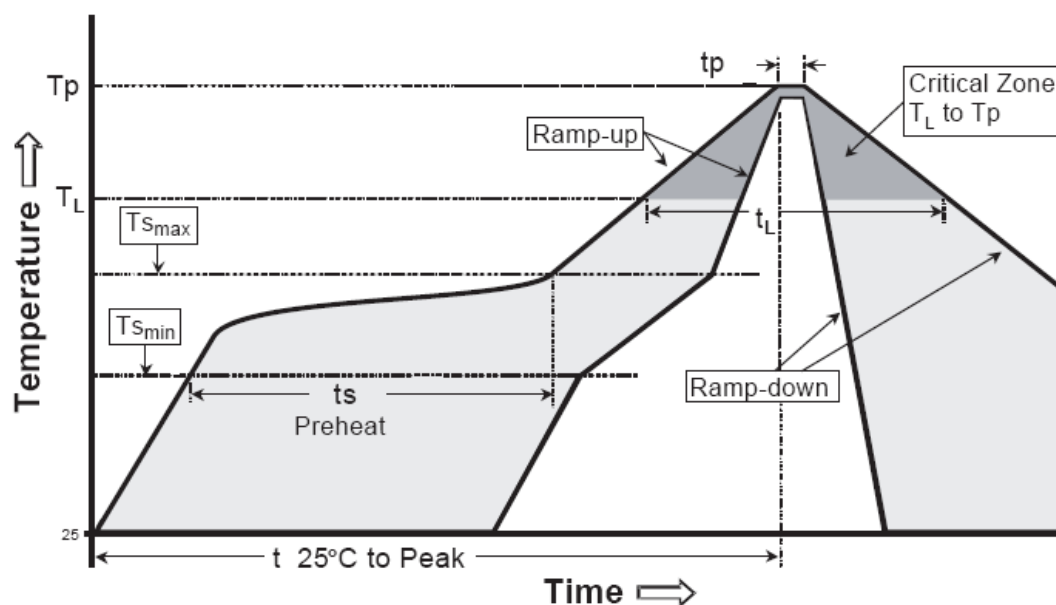
## 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See packaging appropriate drawings

## 7.0 RECOMMENDED REFLOW PROFILE

**Table A:**

Profile Feature	Specification
Average Ramp-Up Rate ( $TS_{max}$ to TP )	3°C/second max.
Preheat — Temperature Min. ( $TS_{min}$ )	150°C
Preheat — Temperature Max. ( $TS_{max}$ )	200°C
Preheat — Time ( ts: $TS_{min}$ to $TS_{max}$ )	60 ~ 120 seconds
Time maintained above — Temperature ( $T_L$ )	217°C
Time maintained above — Time ( $t_L$ )	60 ~ 150 seconds
Peak/Classification Temperature ( $T_p$ )	260°C+10 / -0°C
Time within 5 °C of actual Peak Temperature ( $t_p$ )	30-35 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.



**Fig.1.**

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