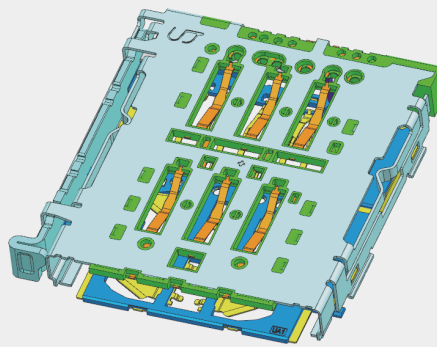


# SIM and Memory Card Socket Connector

**S05**

**Applications** | Mobile phone, Computer, Laptop, Medical equipment, Video recorder, Smart Car



- ▶ 3in2 Stack Mold Tray Socket
- ▶ SD & SIM Terminal deformation prevention structure
- ▶ TRAY reverse insertion prevention structure
- ▶ Switch ON-OFF Structure
- ▶ All-in-one Cover & Latch

## Specifications

Current Rating	Contact Resistance	Insulation Resistance	Dielectric Strength	Temperature Range
0.5A/Pin	100mΩ [Max.]	1,000MΩ [Min.]	AC 500V	-40°C ~ 85°C

## Mating Size & Product No.

PINS	PITCH	WIDTH	HEIGHT	LENGHT	CODE
21	2.54	16.18	2.58	17.73	TS254-C21B-C26-A

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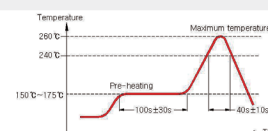
## Product Specification

Ratings	Rated current	0.5A/Pin	Operating temperature range	-40°C to +85°C 1	Storage temperature range	-5°C to +40 °C (With packing)
	Rated voltage	Max 10V AC(RMS) or DC	Operating humidity range	10% to 80% RH 2	Storage humidity range	65%RH

1) Including terminal temperature rise.

2) Storage area is to be free of corrosive gases and dew formation.

Items	Specifications	Conditions
1. Contact resistance	100mΩ [Max.]	- Open circuit voltage: 20mV. - Test current: 10mA.
2. Insulation resistance	1,000MΩ [Min.]	- Test voltage: 500V d.c. - Test time: 1 minute ± 5 seconds.
3. Withstanding voltage	No flashover or dielectric breakdown	AC 500V for 1minute
4. Tray insert force	1,000gf [Max.]	Insert the tray at a rate of 25±3 mm/min. (actual card used)
5. Rod withdrawal force	- SIM1+SIM2 : 400~1200gf - SIM1+SD : 400~1300gf	- Press Rod with a pin. (Speed 25 mm/min) - Measure the force at the third time when the actual use card is mounted.
6. Durability	1) Check whether the SIM card terminal surface is split and the card terminal is short. 2) contact resistance - Max 100mΩ 3) Pin removal force (2,000 times) - SIM1+SIM2 : 400~1200gf - SIM1+SD : 400~1300gf	1) Attach and detach 500 times. 2) Attach and detach 2,000 times. 3) Reattach the 0.7T SD/SIM card tested in Sample No.2 and attach/detach an additional 3,000 times
7. Vibration	Discontinuity : 1.0 microsec. MAX.	- Acceleration : 50G (490%) - Duration : 11ms - Number of shocks : 3 both axial directions, 3 times each, 18 times in total - Test voltage : 5V d.c. - Test current : 1mA d.c.
8. Shock resistance	No damage or mechanical defect No interruption over 1μ sec. No FPC drop out	On concrete : 1.8m Height, six axis 3 times, 150g total weight On tile : 0.1m Height, XYZ axis 3,500 times, 150g total weight
9. Humidity	- MAX. Change from Initial contact resistance 40mΩ MAX. - Insulation resistance : 100MΩ Min	Temperature : 40°C±2°C Humidity : 90% ~ 95% Duration : 96hr
10. Temperature cycle	No damage or mechanical defect Contact resistance : 120mΩ Max. / contact Insulation Resistance : 50MΩ Min.	- 40±3(°C) : 30 minutes → 85±2(°C) : 30 minutes, 96 cycles
11. Solder heat resistance	- No have something wrong of push functions. - No have deformation and fall off. - No have something wrong outward appearance and structure.	Reflow condition. (Refer to Reflow)



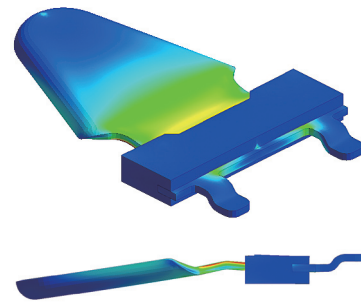
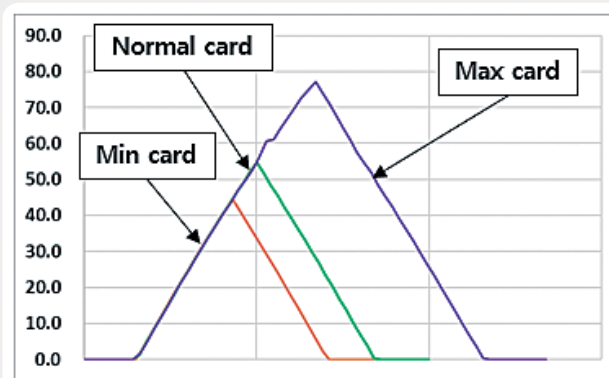
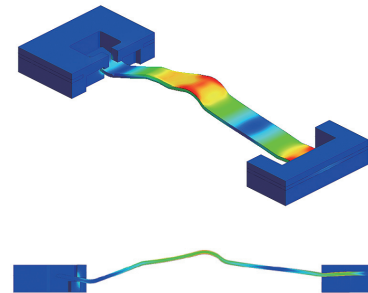
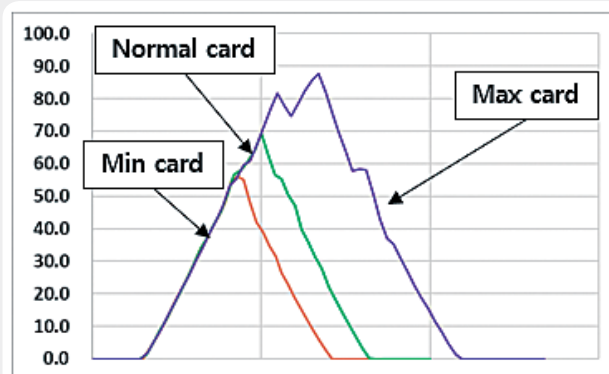
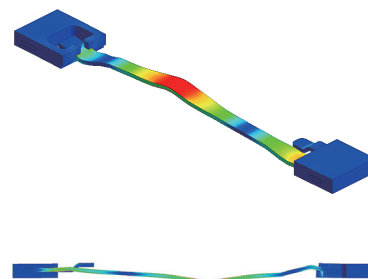
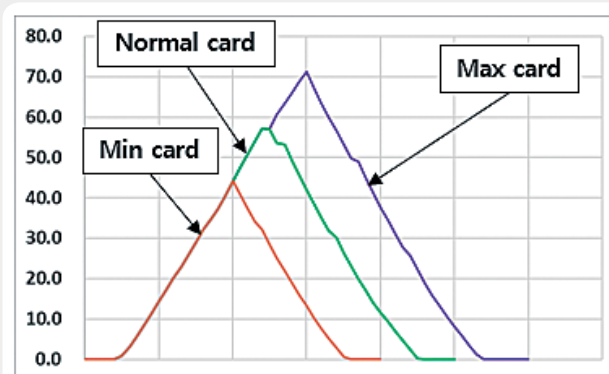
## Materials / Finish

Part	Materials	Finish	UL Regulation
Base A	LCP	Black	UL94V-0
Terminal A	Copper Alloy	Au-Pd, Ni plated	-
Base B	LCP	Black	UL94V-0
Terminal B	Copper Alloy	Au-Pd, Ni plated	-
Cover	Stainless Steel	Ni plated	-
Switch	Copper Alloy	Au-Pd, Ni plated	-
Eject Rod	Stainless Steel	-	-
Lever	Stainless Steel	-	-

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**SIM1****SIM2****SIM3**

Contact Force Simulation

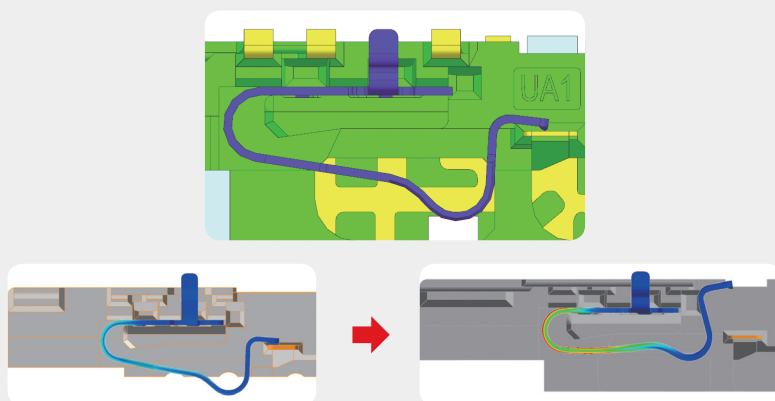
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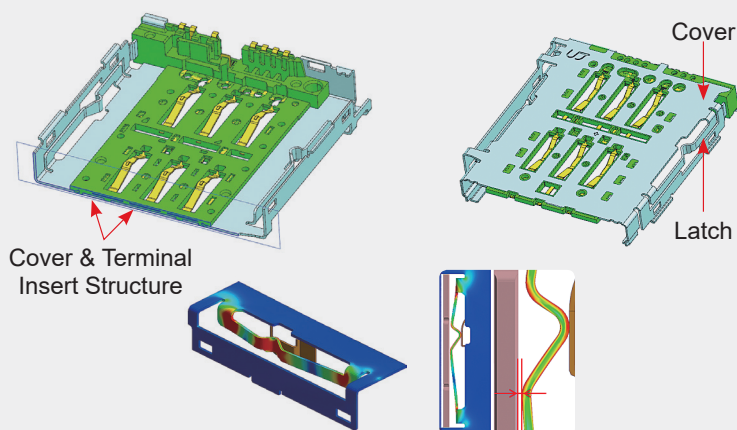
## FEATURES AND ADVANTAGES

- **Switch y-axis ON-OFF structure**
  - Normal [CLOSE] → Tray inserted [OPEN]
  - Strengthen contact stability
  - Improving product quality reliability



Card Tray Insertion Simulation

- **Cover & Terminal full insert Injection molding, Cover & Latch all in one structure**
  - Improving product strength
  - Improving product quality reliability



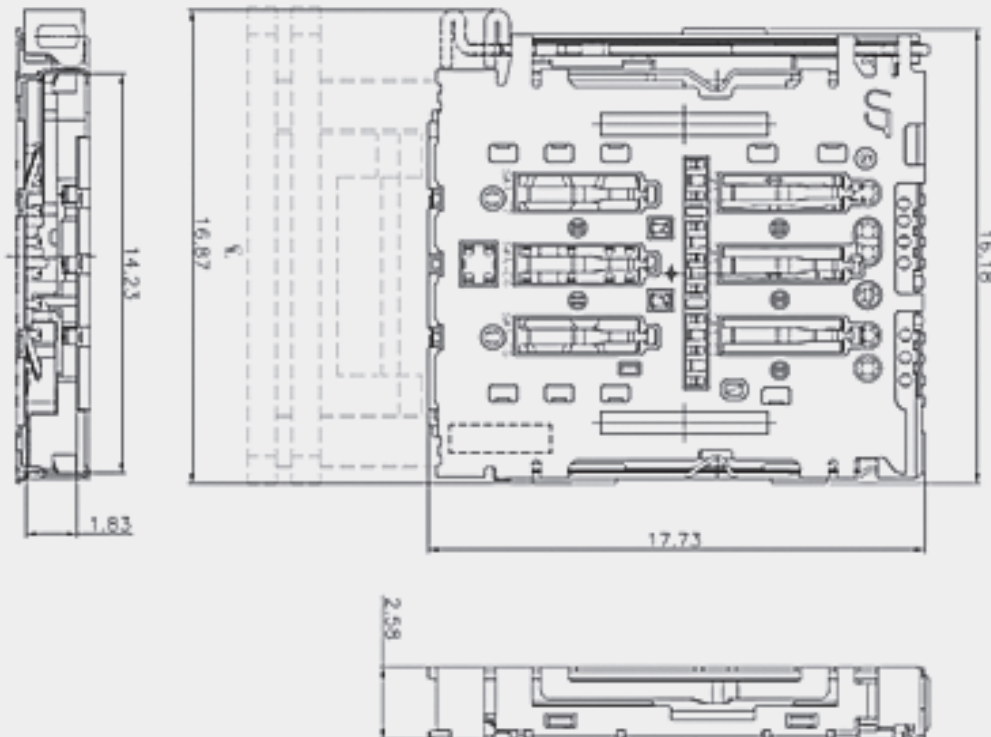
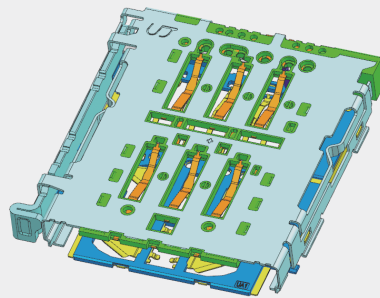
Card Tray Insertion Simulation

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## Product Drawing

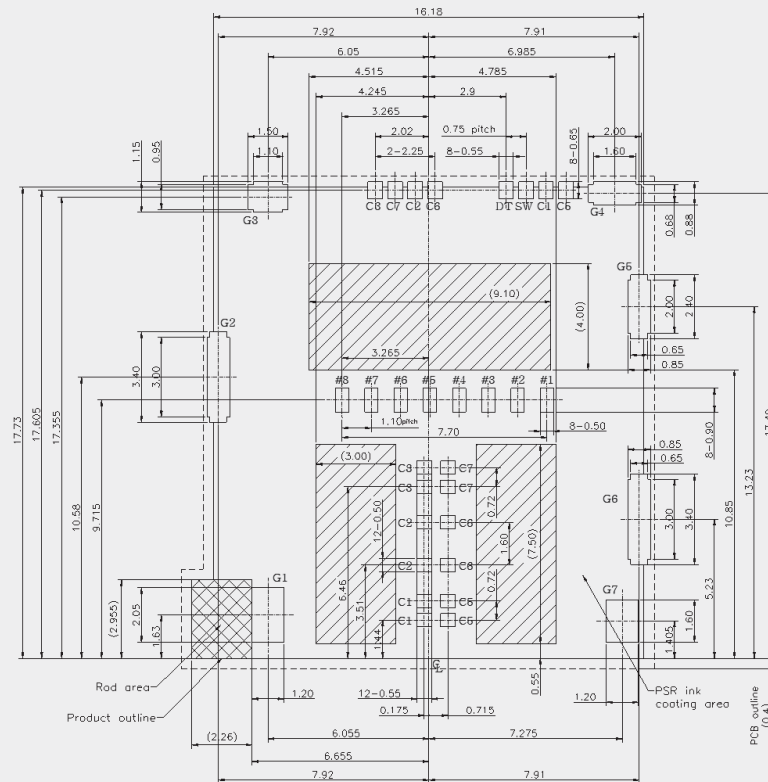


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## Recommended PCB Dimensions



【NANO SIM CARD PIN-MAP】

Pin No.	Description
C1	VCC (Supply V)
C2	RST (Reset)
C3	CLK (Clock)
(C4)	(None)
C5	GND (Ground)
C6	VPP (Program V)
C7	I/O
(C8)	(None)

【micro SD CARD PIN-MAP】

Pin No.	Description
T1	DAT2
T2	CD/DAT3*
T3	CMD
T4	VDD
T5	CLK
T6	VSS (GND)
T7	DAT0
T8	DAT1

SW	TRAY DETECTION
DT	GROUND
G1~G7	GROUND or Not CONNECT

【TIMING SEQUENCE】

OPEN SITUATION WHEN TRAY INSERTED	
NORMAL CLOSED SITUATION WHEN TRAY INSERT FIRST TIME. DETECT SWITCH IS ACTIVATED.	