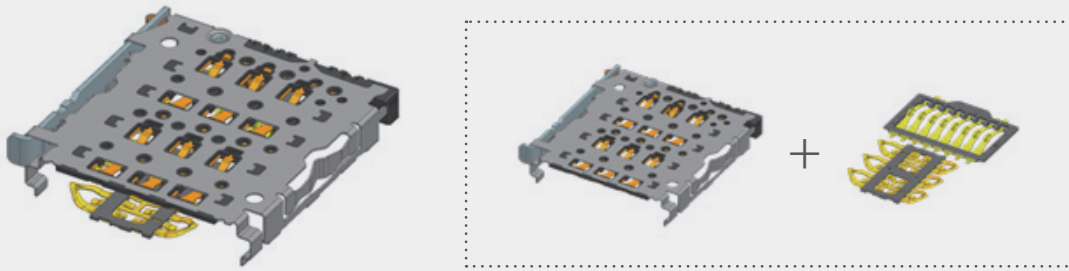


# SIM and Memory Card Socket Connector

**S07**

**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
TOP Ass'y 0.5A/Pin	100mΩ [Max.]	1,000mΩ [Min.]	AC 500V	-40°C ~ 85°C
SD/SIM Ass'y 0.3A/Pin				

## Mating Size & Product No.

PINS	PITCH	WIDTH	HEIGHT	LENGHT	CODE
6	2.54	15.25	2.30	16.40	TS254-C21B-C14-A
6	2.54	8.00	0.78	8.01	TS254-C21B-C14-B
8	1.10	7.62	0.79	10.10	TS254-C21B-C14-C

# SIM and Memory Card Socket Connector

**S07**

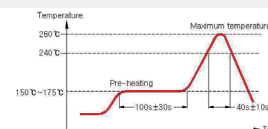
**Applications** | Mobile phone, Computer, Laptop, Medical equipment, Video recorder, Smart Car

## 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.	- Vibration frequency range : 10~55Hz - Total amplitude : 1.5mm - Sweep ration : 10-55-10Hz / Approx 1min. - Duration : 2h each (6h in total)
8. Shock resistance	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.
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	- MAX. Change from Initial contact resistance 40mΩ MAX. - Insulation resistance : 100MΩ 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
Top Base	LCP	Black	UL94V-0
Top Terminal	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	-	-
Rivet Pin	Stainless Steel	-	-
SIM Base	LCP	Black	UL94V-0
SIM Terminal	Copper Alloy	Au-Pd , Ni plated	-
SD Base	LCP	Black	UL94V-0
SD Terminal	Copper Alloy	Au-Pd , Ni plated	-

# SIM and Memory Card Socket Connector

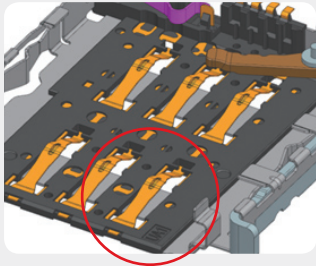
**S07**

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

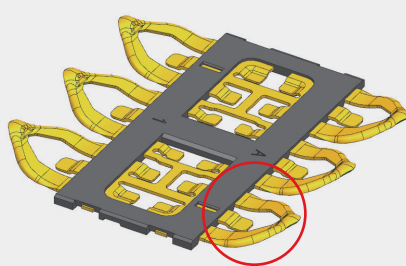
## FEATURES AND ADVANTAGES

### ► SIM & SD Terminal deformation prevention structure

- Strengthen contact stability
- Improving product quality reliability



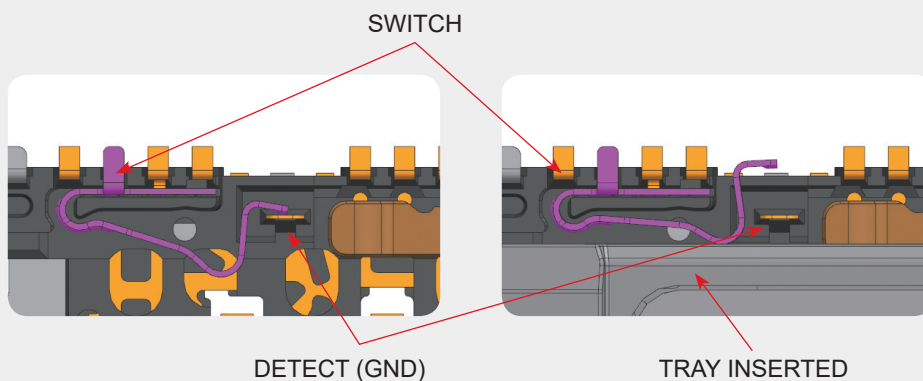
SIM CONTACT



micro SD CONTACT

### ► Switch y-axis ON-OFF structure

- Normal [CLOSE] --> Tray inserted [OPEN]
- Strengthen contact stability
- Improving product quality reliability



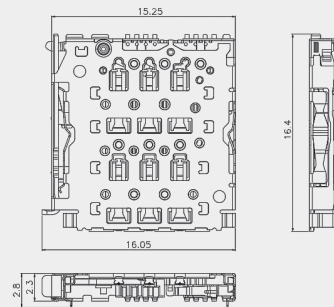
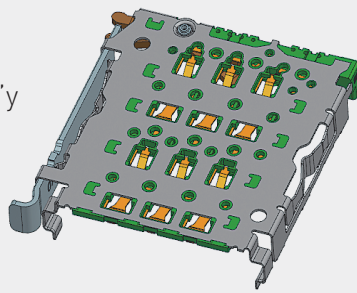
# SIM and Memory Card Socket Connector

**S07**

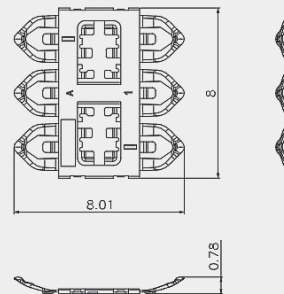
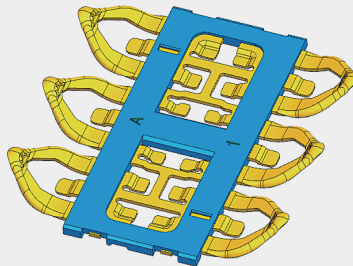
**Applications** | Mobile phone, Computer, Laptop, Medical equipment, Video recorder, Smart Car

## Product Drawing

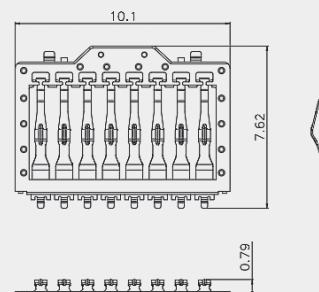
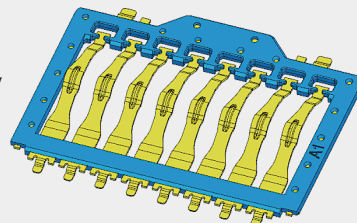
▶ TOP Ass'y



▶ SIM Ass'y



▶ SD Ass'y

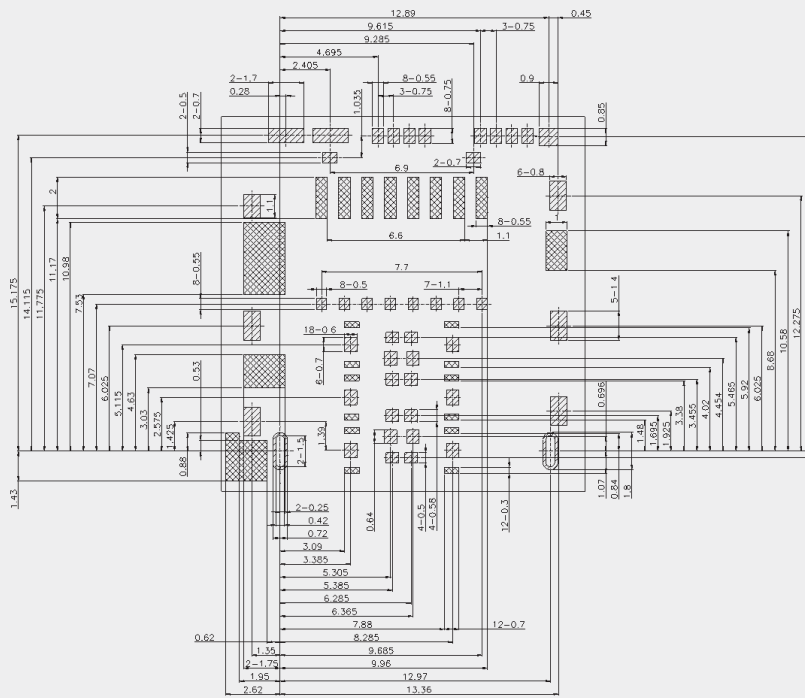


# SIM and Memory Card Socket Connector





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## Recommended PCB Dimensions



RECOMMENDED P.C.B LAYOUT (FRONT VIEW)(Scale 8:1)  
TOLERANCE : ±0.05  
Recommend metal mask is thickness 0.1mm(에탈마스크 권장 두께는 0.1mm)

- () Pad Area, () Non Solder Pad area
1. Touch area of contact tips.
  2. No electrical function and only for mechanical function.
  3. Don't's brush Tin pasted on the area during SMT process.

**[NANO SIM CARD PIN-MAP]**

NANO Card	Pin No.	Description
C1	S1	VCC
C2	S2	RST
C3	S3	CLK
C5	S5	GND
C6	S6	VPP
C7	S7	I/O

**[micro SD CARD PIN-MAP]**

SD Card	Pin No.	Description
P1	A1	DAT2
P2	A2	CD/DAT3
P3	A3	CMD
P4	A4	VDD
P5	A5	CLK
P6	A6	VSS
P7	A7	DAT0
P8	A8	DAT1
-	A9/A10	GROUND

**[TOP PIN-MAP]**

NANO Card	Pin No.	Description
C7	G17	I/O
C6	G14	VPP
C5	G12	GND
C3	G18	CLK
C2	G15	RST
C1	G13	VCC
G1-G11 : GND PIN		
G19 : DETECT LEVER (GROUND)		
G16 : DETECT SWITCH		

**[TIMING SEQUENCE]**

