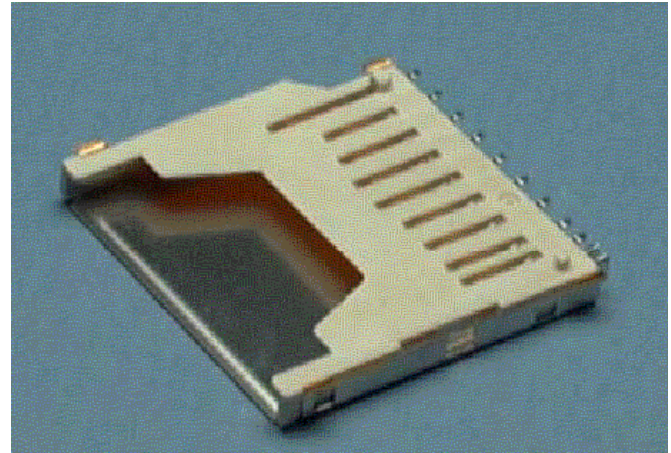


# Secure Digital (SD) Connector



Push-Push Type



Manual Type

# SD Connector Overview

- Secure Digital Memory Cards offer removable storage up to 128MB of encrypted data
- SD Cards have a very low power consumption (<33mA)
- SD Cards can provide write protect and mechanical card detection features

*these features make this interconnect system ideal for ...*

# SD Connector Applications

- PDA's
- Notebooks
- Point of Sale Terminals
- Set-Top Box
- MP3 players
- Cellular Phones
- Digital Cameras
- DVD Players
- High End TVs
- Hand Held Devices utilizing Socketed Flash Memory

# SD Connector Markets

- Communications
- Data
- Consumer

# SD Connector

Push-Push Type

PN 10022711-002

Manual Type

PN 10026206-002

## **RATINGS**

- A. Current Rating : 0.5A
- B. Voltage Rating : 5V
- C. Operating temperature :  $-25\text{ }^{\circ}\text{C}$  to  $90\text{ }^{\circ}\text{C}$   
Storage temperature :  $-40\text{ }^{\circ}\text{C}$  to  $90\text{ }^{\circ}\text{C}$   
Humidity : 95% max. non condensing

Finish : (a) Solder Tail: Au plated over Nickel

(b) Underplated : Nickel plated overall



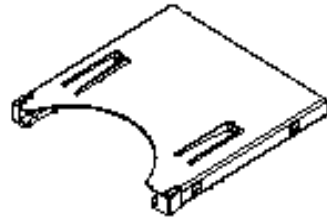
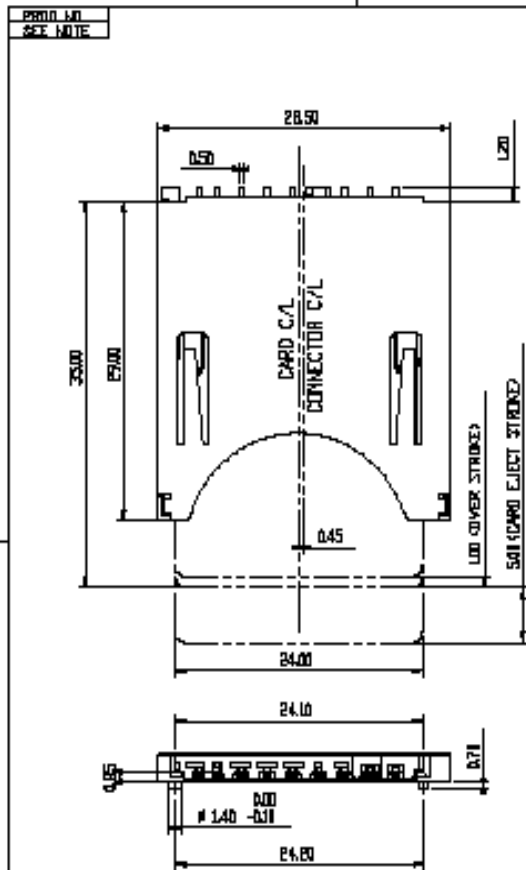
# Push-Push Type

# SD Connector

These drawings are for reference only. Dimensions are given in millimeters. Specifications are given in millimeters unless otherwise specified. All dimensions are in millimeters unless otherwise specified.

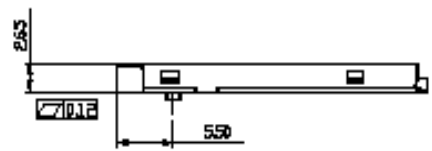
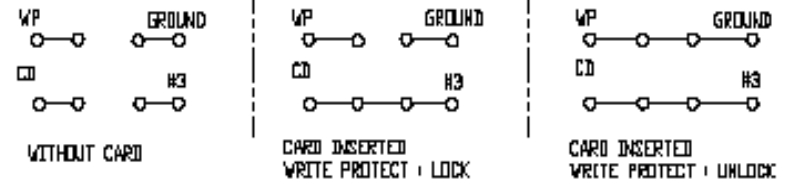
**FCI**

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- NOTES:**
- MATERIAL:**  
INSULATOR: UL 94V-0, LCP+302G/F  
COLOR: BLACK  
CONTACT: PHOSPHOR BRONZE
  - CONTACT AREA PLATING:**  
10u" GOLD OVER 50u" Ni
  - MULTIMEDIA CARD COMPATIBLE**
  - WP: WRITE PROTECT**  
**CD: CARD DETECT INDICATION**
  - PART NUMBER:**  
10022711- D 0 X
- CONTACT PLATING:**  
1: GOLD FLASH OVER Ni  
2: 10u" Au OVER Ni

**CIRCUIT:**



part. desc		tolerance unless otherwise specified		CUSTOMER COPY	<b>A</b> <b>FCI</b>
Rev	date	by	date	project	SD CARD HEADER PUSH TYPE
A	10/23/01	JH	10/24/01		
		eng	JAPEN HRU 05/14/03	MM	product family MEMORY
		eng	JAPEN HRU 08/18/03		code
		chr	JAPEN HRU 08/14/03	scale	A4 10022711
		app	STANISLAW LH 05/14/03	N/A	sheet 1 of 2
sheet	revision	A	A		
1	2				

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22526





	TYPE PRODUCT SPECIFICATION	NUMBER GS-12-241	
TITLE SD Card Connectors Product Specification		PAGE 1 of 5	REVISION A
		AUTHORIZED BY Jason Hsu	DATE 4/17/2003
		CLASSIFICATION CONFIDENTIAL	

## 1. SCOPE

This specification covers performance, tests and quality requirements for SD CONNECTOR PUSH-PUSH TYPE.

## 2. APPLICABLE DOCUMENT

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

### 2.1 Commercial Standards And Specification:

- IEC 512 Electromechanical components for electronic equipment; basic testing procedures and measuring methods
- EIA 364 Test methods for electrical connectors
- UL-STD-94 Tests for flammability of plastic materials for parts in devices and appliances

## TEST REQUIREMENTS AND PROCEDURES SUMMARY

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
Examination of product	Meets requirements of product Drawing 10022711	Visual inspection No physical damage
<b>ELECTRICAL</b>		
Contact Resistance	100m $\Omega$ Max.	IEC 512 part 2, test 2a, except 100mA maximum test current and 20 mV maximum open circuit voltage
Insulation Resistance	1000M $\Omega$ Min., initial 100M $\Omega$ Min., final	500V DC IEC 512 part 2, test 3a, method C
Dielectric Withstanding Voltage Resistance	No creeping discharge or flashes occur. Current leakage 1mA Max.	500V AC rms., 1 minute, Test between adjacent contact of unmated samples EIA-364-20

**ENVIRONMENTAL**

Moisture Resistance	Contact resistance:100 mΩ Max. initial; 20 mΩ change after test. Insulation resistance: Initial.1000 MΩ .after test...100 MΩ	Temperature:40 ℃ ± 2 ℃ Humidity: 90~95%(RH) Period:96 hours. MIL-STD-202F, method 103B, Test condition :B
Salt Spray	No harmful corrosion	Temperature:35 ℃ ± 2 ℃ Concentration: 5% Period:48 hours. MIL-STD-202F, method 101D

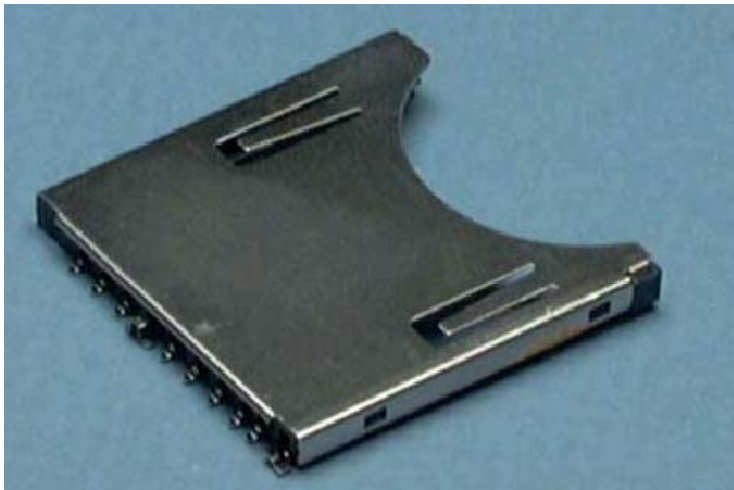
**PHYSICAL**

Solderability	The test area shall be covered more than 95% of immersed area with flash solder.	Solder temperature : 230 ℃ ± 5 ℃ Period : 5 ± 0.5sec. MIL-STD-202F, method 208
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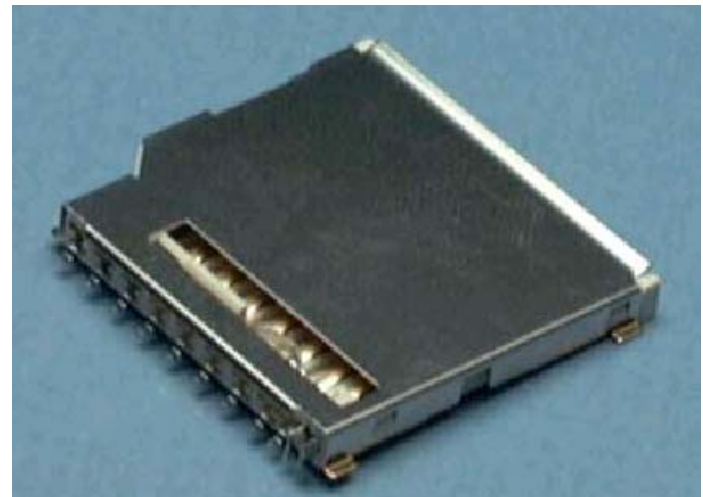
## MECHANICAL

Total Pulling and Insertion Force	Total Pulling Force : 2N Min. Total Insertion Force : 40N Max.	IEC 512 part 7,at a rate of 25 mm/minute
Vibration and High Frequency	No physical damage	IEC 512 part 4,test 6d. Mechanical frequency range is 10 ~2000Hz,acceleration is 2G
Shock	No physical damage	IEC 512 part 4, test 6c. Acceleration is 5G
Contact Force	0.2 ~0.4N	IEC 512 Part 8
Connector Intensity	No physical damage	Applied Force 10N to main body of connector at no card for Up/ Down/ Forward/ Backward directions
Wrestling (Flapping) Strength	No physical damage	Applied Force 10N to SD card for UP/ Down/ Right/ Left directions (The card shall be inserted 15mm into the connector from the head of the card)
Durability Cycling	No physical damage	Operation Cycles: 10000 cycles time,mate and unmated connectors for 500 cycles per hour  EIA 364-09

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