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# Uncontrolled

Card Insertion and Removal Life  
(Marketed Card)

TEST REPORT

Product : SD Memory Card Socket

Data No. : AXA573062-569

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## Purpose

Confirm characteristics of marketed card insertion and removal life in accordance with spec.

## Sample

<Socket>

SD Memory card socket UHS- II type, Standard type

【AXA573062】 (N=15)

<SD Card> (N=2) (Appearance: Refer to page 4 to 5)

#	manufacturer	Part No.
1	TOSHIBA 8GB	SD-K08GR7W4 8GB Class4
2	Silicon Power 4GB	SP004GBSDH004V10 4GB Class4
3	Eye-Fi 16GB	EFJ-MC-16
4	Kingston 32GB	SD10V/32GB
5	TDK 4GB	T-SDHC4GB4 4GB Class4
6	JVC 4GB	V-SD4CL4 4GB CLASS4
7	Gigastone 32GB	GJS10/32G
8	ADATA 4GB	MLAKBASDH4GCL4-R 4GB Class4
9	HI-DISC 4GB	HDSDH4GCL10UIJP 4GB CLASS10 UHS-I
10	I/O DATA 4GB	BSD-4G4A 4GB Class4
11	PNY 32GB	P-SDH32U1H-GE
12	Philips 8GB	FM08SD35B/27
13	Strontium 8GB ADAPTER	Card w SD adapter Class 4
14	Apacer 4GB	AP-ISD04GCS4A-2CM MLC
15	Integral 32GB	32GB High-speed SDHC CL10 memory card

- Contact resistance measured by Non UHS- II card and Card type PCB.

## Test condition

< Card Insertion and Removal Life>

Tested on mating cycle test machine

Operation frequency: 600 max. time/hour

Air blow card (dry air) for 3 seconds:

at each 100 cycles interval (10 times) from start to 1,000 cycles.

at each 1,000 cycles interval (2 or 4 times) from 1,001 cycles.

Date: September 26, 2019

HONDA TSUSHIN KOGYO CO., LTD.

Drawn by *T. Sato*

Checked by *S. Yshida*

Checked by \_\_\_\_\_

Approved by *Y. Kato*

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TEST REPORT

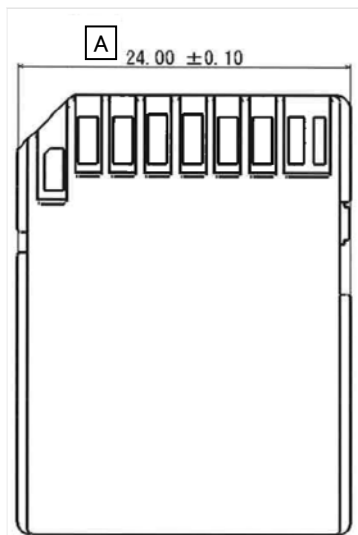
Product : SD Memory Card Socket

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## < Card pulling force >

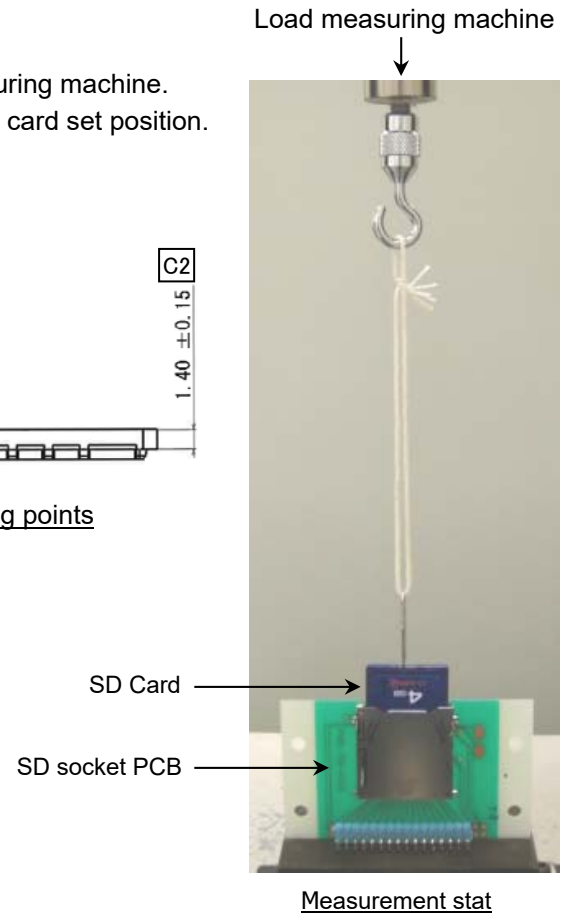
A socket is fixed, SD card is pulled out in a load measuring machine.  
The load out of which a card is pulled is measured from card set position.  
The card size is measured.



Measuring points



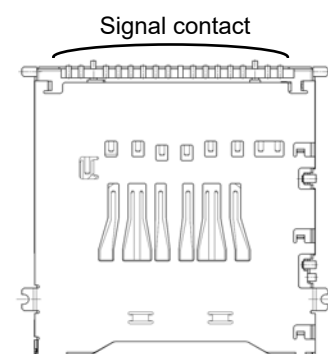
Measuring points



## Criteria

Initial and After 6,000 cycles

- Appearance: There is no deforming, camber and crack of molded parts.
- Insulation resistance: 100 MΩ min. (at D.C. 500 V)
- Breakdown voltage resistance: A.C. 500 V / 1 minute. (Detection current: 1mA)
- Contact resistance:  
Signal contacts: After test 40mΩ maximum change.
- Card pulling force (reference) : Actual measurement
- Card jumping check (reference)



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### Test result

a) Appearance: There was no deforming, camber and crack of molded parts.

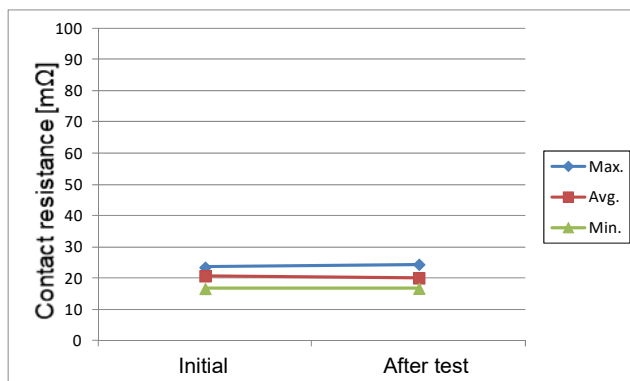
b) Insulation resistance:

Measurement part	Test result
Contiguity terminals	More than 100 MΩ
Between shell and each contact	

c) Breakdown voltage resistance:

Measurement part	Test result
Contiguity terminals	There are no short and damage at A.C. 500 V for 1 minute.
Between shell and each contact	

d) Contact resistance:



	$\Delta R_c$	[mΩ]
Max.	2.83	
Avg.	-0.670	
Min.	-3.76	

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- e) Card pulling force (reference)
- f) Card jumping check (reference)

			Card dim.[mm]				Card pulling force [N]		Card jumping check	
			A	B	C1	C2	Initial	After test	Initial	After test
			24.00 ±0.10	2.10 ±0.15	1.40 ±0.15	1.40 ±0.15				
1	TOSHIBA 8GB		24.00	2.25	1.42	1.41	6.20	4.45	Nothing	Nothing
2	Silicon Power 4GB		23.99	2.15	1.42	1.42	5.45	4.00	Nothing	Nothing
3	Eye-Fi 16GB		23.95	2.15	1.42	1.40	5.10	3.30	Nothing	Nothing
4	Kingston 32GB		23.97	2.23	1.43	1.42	4.75	2.80	Nothing	Nothing
5	TDK 4GB		24.00	2.15	1.41	1.39	5.65	3.50	Nothing	Nothing
6	JVC 4GB		23.98	2.09	1.39	1.37	4.95	3.00	Nothing	Nothing
7	Gigastone e 32GB		24.00	2.13	1.42	1.41	5.95	4.20	Nothing	Nothing

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8	ADATA 4GB		23.96	2.11	1.39	1.38	3.30	2.80	Nothing	Nothing
9	HI-DISC 4GB		24.00	2.10	1.41	1.38	5.10	2.85	Nothing	Nothing
10	I/O DATA 4GB		24.00	2.08	1.42	1.40	4.80	2.80	Nothing	Nothing
11	PNY 32GB		23.96	2.09	1.40	1.39	3.95	2.85	Nothing	Nothing
12	Philips 8GB		23.96	2.16	1.40	1.39	5.45	4.45	Nothing	Nothing
13	Strontium 8GB		24.01	2.12	1.37	1.38	4.90	3.30	Nothing	Nothing
14	Apacer 4GB		23.99	2.14	1.38	1.37	3.30	2.60	Nothing	Nothing
15	Integral 32GB		24.02	2.14	1.42	1.41	5.40	3.90	Nothing	Nothing

## Judgment

No problems were observed.

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