

SD MEMORY CARD SOCKETS

A proven specification for critical environment

Long-term reliability



Professional equipment such as Medical, Surveillance cameras and FA applications requires a very long term use and reliability. Data failure is never accepted. For the long term and reliable applications.

Safe and long-lasting!

POINT

- With producing over many millions of HTK SDCard Sockets there has been 0 defects reported by our customers.
- HTK evaluated various long-term and reliable usage tests. For example, it passed a durability tests of 10,000 repeated Insertion and extractions durability (equivalent to 10 years of usage assuming 2 insertions and removals per day).
- 5,000 times for UHS-I compatible series.

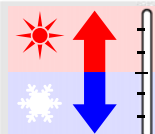
Ideal for → Medical equipment/ Surveillance cameras/ FA equipment

Insertion and Withdrawal durability / defects (ppm)



High or low temperature environments

Temperature and humidity data



SD cards is required to be used even in harsh summer or winter environments without problems.

Environment-proof specs are required so that malfunctions and deformations do not occur.

Strong against the hot and cold!

POINT

- HTK's SD card socket can be used in temperatures ranging from -25°C~+90°C in order to support a wide variety of applications.
- HTK's SD card socket passed humidity test up to 95% Rh as well. You can utilize in very humid environment without problems.

Ideal for → Drive recorders/ Car GPS navigation systems



Shock and vibration resistance

Impact data/ Vibration data



Protecting the important recorded data is critical in the event that a drone or active camera is subjected to an unexpected impact. Your SD memory card and data will be protected by robust sockets.

Strong against shock and vibrations!

POINT

- Evaluated 100G shock test and no performance problem.
- Vibrations generated by a power source may affect the socket. HTK supports your design with available vibration data.

Ideal for → Drones/ Professional cameras/ Aeroutic equipment

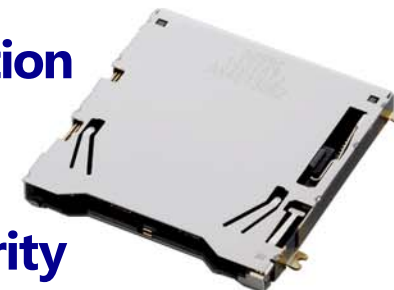


HTK's double-sided metal shell structure is unique and patented

1.Improves noise reduction

2.Improves robustness

3.SMD contact Coplanarity

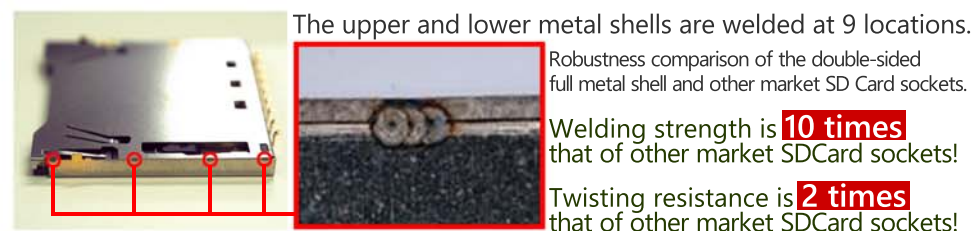


Noise reduction because of the double-sided metal shell structure

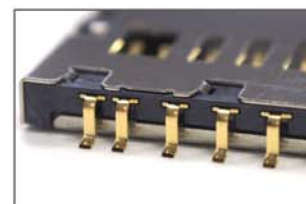


A comparison of the noise generated when using a single card and an HTK SD card socket. The double-sided full metal shell eliminates noise even at high card capacity or high-speed transmissions.

Robustness increased by special welding technology!



Mounting stability improved thanks to the metal laser welded shell



Coplanarity stabilized by the double-sided metal shell + welding methods!

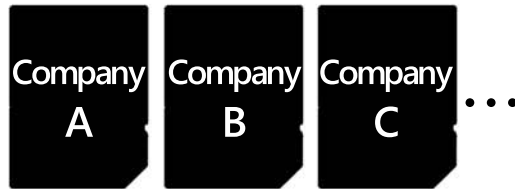
Metal shell protects against warping and distortion before and after SMT processing.

*Please consult with an HTK sales representative when considering the adoption of this product.

SD MEMORY CARD SOCKETS

Point HTK's SD card socket can be used without problems with typical SD cards in the market

- Compatibility tested with 15 typical Japanese and international manufactures' SD cards



Insertion and removal endurance tests using commercial cards conducted
Card requirements satisfied

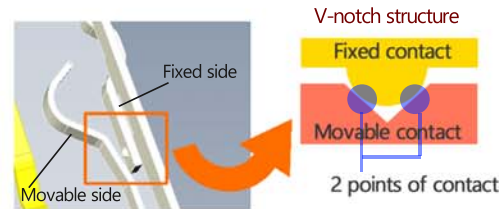
- Outstanding insertion and removal durability allows for long-term usage



No issues after 10,000 insertions and removals during endurance test
Long-term use over 10 years assumed

- Reliable card detection realized

Card detection / V-notch structure used for write protect part
V-notch structure:
2 points of contact and wiping structure ensure contact reliability



Tested for stable contact resistance in dust and dirt tests
Strong against foreign contaminants

- UHS-II lineup compatible

UHS-I/II are SD card transfer speed classes.

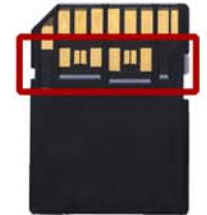
UHS-I

Transfer speed of 102MB/s



UHS-II

Transfer speed of 312MB/s



UHS-II has pads for high-speed differential communication to support higher transfer speeds

HTK sockets support all SD cards including UHS-I/ II

SD Memory Card Sockets Lineup

HTK's SD card sockets has many product variations.
The lineup covers all card insertion directions, mounting brackets, and SD card types.

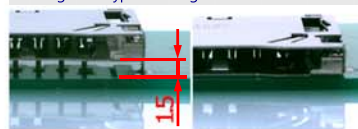
Card insertion direction	Mounting bracket	SD Card
Standard mount	SMD	Normal speed High speed /UHS-I
Reverse mount	Through Hole	UHS-II



Selectable for some products

Standoff: 1.5mm

*There is no standoff in principle.
Only selectable for UHS-I compatible products and Through Hole type mounting brackets.



Card anti-pop-out function

*Card anti-pop-out function is featured in principle.
The anti-pop-out function can only be selectable for UHS-I compatible series.

SD card and SD card socket compatibility table

SD card \ SD card socket	Normal speed High speed	UHS-I	UHS-II
Applicable for UHS-I	●	●	● *The speed reaches equivalent as UHS-I
Applicable for UHS-II	●	●	●
Transfer speed	25MB/s 12.5MB/s	102MB/s	312MB/s

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