HID®

SIO® Enabled UHF Technology Smart Card

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UHF Smart Card

HIGHLY SECURE UHF LONG RANGE SMART CARD FOR PARKING & GATE APPLICATIONS

FEATURES:
- EPC Class-1 Generation-2 and ISO18000-6C compliant
- Supports frequency ranges from 860 MHz to 960 MHz
- Card memory has a 50-year data retention capability and 100,000 cycle endurance

- **Impressive read range –** Ultra high frequency (UHF) technology can be read from a distance of up to five meters depending on frequency, reader and environment.
- **Highly secure –** Secure Identity Object® (SIO®) enabled, for multi-layered security beyond the card technology, protecting identity data from unauthorized access.
- **Reliable –** Able to withstand 100,000 write cycles for high read/write reliability and a long use life.
- **Cost effective –** Passive no-battery design does not require maintenance

The SIO Enabled UHF Smart Card is an extension of the iCLASS SE® platform, providing a secure ultra high frequency (UHF) long range parking and gate control solution. The UHF card can be read from distances of up to five meters for long range identification.

The SIO Enabled UHF Smart Card is the most secure UHF credential available. The reader issues a password to obtain access to protected areas of the tag's memory for safe storage of confidential or business-sensitive data in the tag's user memory.

In addition to this security measure, HID Global's Secure Identity Object (SIO) data model adds a layer of encryption and authentication for advanced security and performance.

The smart card is cost effective, due to the underlying passive UHF technology. The card does not contain a battery. Powered by the reader, the SIO Enabled UHF Smart Card eliminates the need for battery maintenance.

The solution offers secure contactless read/write smart card technology along with the ability to add anti-counterfeiting features. These features include custom artwork or photo identification imprinted directly on the card.

The SIO Enabled UHF Smart Card meets strict ISO standards for thickness and can be used with high definition printers. It is strong, flexible and resistant to cracking and breaking.

UHF CARD FEATURES:

- Ultra high frequency read/write contactless smart card technology for long range, reliable communications with high data integrity.
- Based on EPC (Electronic Product Code) Radio Frequency Identity Protocols Class-1 Generation-2 UHF RFID Protocol for Communications at 860 MHz – 960 MHz
- Uses logical protection (access password) to prevent unauthorized access to the memory.
- Passive, no-battery design allows for large number of reads. Strong and resistant to damage.

SPECIFICATIONS

Base Part Number	**600 - Composite PET/PVC Card**
Description	UHF Contactless Smart Card
Card Construction	Composite 40% Polyster / 60% PVC
Dimensions	2.127" x 3.375" x 0.033" max. (5.40 x 8.57 x 0.084 cm)
Weight	0.20 oz (5.7 g)
Operating Temperature	-40° to 158° F (-40° to 70° C)
Operating Humidity	5 - 95% non-condensing
Operating Frequency	860 - 960 MHz
RF Interface	As suggested by ISO18000-6C and EPC Class-1 Gen-2
Baud Rate[1]	Reader to card data rate: 26.7Kbit/s ->128Kbit/s Card to reader data rate: 40Kbits/s -> 640Kbit/s
Memory Type	Non-volatile memory (NVM), read/write
Data Retention	100,000 cycles
Write Endurance	50 years
SIO Enabled Memory Specification	512 bit of user memory to store a PACS SIO
Typical Read Range	Up to 5 meters - depends on installation conditions
Card Marking[2]	Laser engraving
Custom Graphics	Optional
Operates with	iCLASS SE U90 Reader
Warranty	Lifetime warranty. See complete warranty policy for details.

1 Encoding choice and data rate are configured by the reader.

2 High definition re-transfer printing is the ONLY recommended print process for the SIO enabled UHF Technology Smart Card. Use of direct to card or other printing processes will not produce acceptable results.

hidglobal.com

North America: +1 512 776 9000
Toll Free: 1 800 237 7769
Europe, Middle East, Africa: +44 1440 714 850
Asia Pacific: +852 3160 9800
Latin America: +52 55 5081 1650

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