



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

- **Impressive read range** - Ultra High Frequency (UHF) technology can be read from a distance of up to 5 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.
- **Interoperable** - Single card solution supports UHF and iCLASS SE® for use in mixed technology applications.
- **Cost effective** - Passive no-battery design does not require maintenance.

**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

The SIO® Enabled UHF/iCLASS® Smart Card, provides a secure Ultra High Frequency (UHF) long range parking and gate control solution that can be used in conjunction with other existing technologies. The UHF card can be read from distances of up to five meters for long range identification.

This dual-technology smart card also combines UHF technology with iCLASS and iCLASS SE technologies, offering a single card solution for both door and gate access.

Part of the iCLASS SE platform, the SIO Enabled UHF/ iCLASS Smart Card is the most secure UHF credential available. In UHF mode, the associated reader issues a password to obtain access to protected areas of the card's memory for safe storage of confidential or business-sensitive data.

In addition to this security measure, the dual-technology smart card leverages HID Global's Secure Identity Object (SIO) data model that

adds an additional layer of encryption and authentication for advanced security and performance.

The dual technology smart card is also cost effective due to its underlying passive UHF and high frequency (HF) technologies,. The card does not contain a battery since it is powered by the reader. This eliminates the need for battery maintenance.

The SIO Enabled UHF/iCLASS 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.

This durable dual-technology 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.
- Leverages HID Global's portable credential technology based on Secure Identity Object\* (SIO\*).
- 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.

#### iCLASS® FEATURES:

- 13.56 MHz read/write contactless smart card provides, reliable communications with high data integrity.
- iCLASS® technology ensures high security with mutual authentication, encrypted data transfer, and 64-bit diversified keys for read/write capabilities.
- 16k available in a two or sixteen application area configuration. 32k available with 16k memory configured in either 2 or 16 application areas, plus an additional 16k user configurable memory.
- Multiple securely separated files enable numerous applications, including the HID standard access control application, and support future growth.
- Meets ISO 15693 for contactless communications.

#### HID Global SIOs deliver three key benefits: portability, security and extensibility.

- SIOs are defined using open standards that can support any piece of data, including data for access control, biometrics, PC logon, and many other applications.



## SPECIFICATIONS

<b>Base Part Number</b>	601 - Composite PET/PVC Card
<b>Description</b>	UHF/iCLASS Contactless Smart Card
<b>Card Construction</b>	Composite 40% Polyester / 60% PVC
<b>Dimensions</b>	2.127" x 3.375" x 0.033" max. (5.40 x 8.57 x 0.084 cm)
<b>Weight</b>	0.20 oz (5.7 g)
<b>Operating Temperature</b>	-40° to 158° F (-40° to 70° C)
<b>Operating Humidity</b>	5 - 95% non-condensing
<b>UHF Operating Frequency</b>	860 - 960 MHz
<b>HF RF Interface</b>	As suggested by ISO15693
<b>UHF Baud Rate<sup>1</sup></b>	Demodulated data from reader is PIE encoded with a data rate: 26.7Kbit/s ->128Kbit/s Back scattered data from tag to reader is encoded either as FMO or Miller subcarrier modulation with a data rate of 40Kbits/s -> 640Kbit/s
<b>HF Baud Rate</b>	ISO15693 mode: 26 Kbit/s
<b>Memory Type</b>	NVM, read/write
<b>Data Retention</b>	100,000 cycles
<b>UHF Typical Read Range</b>	Up to 5 meters - depends on Installation conditions and vehicle windshield specification <sup>3</sup>
<b>HF Typical Read Range</b>	Up to 10 centimeters - depends on installation conditions
<b>Card Marking<sup>2</sup></b>	Laser engraving
<b>Custom Graphics</b>	Optional
<b>Operates with</b>	iCLASS SE U90 Reader (UHF) - iCLASS SE readers for iCLASS
<b>Warranty</b>	Lifetime warranty. See complete warranty policy for details.

1: Encoding choice and data rate are commanded by the reader.

2: DTC Printing not recommended.

3: Vehicles with tinted or heated windshields may impact read range. Please consult vehicle manual for compatibility with UHF and RF credentials



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