



# Multi-Technology Cards with LEGIC®



## MULTI-TECHNOLOGY CREDENTIALS FOR MIGRATION FROM LEGIC® PRIME TO HID GLOBAL ICLASS SE PLATFORM

- **Multi-layered security** – Providing additional protection for identity data beyond the card technology.
- **Seamless migration** – Transition from LEGIC® prime to iCLASS SE® or SIO technology-enabled MIFARE DESFire™ EV1. Simultaneous support of proximity technologies.
- **Flexible** – Interoperable with existing systems, including standard iCLASS®, iCLASS SE and LEGIC prime readers.

HID Global’s SIO technology-enabled cards for LEGIC® prime are designed to give customers all the benefits of the LEGIC access control technology plus the convenience of combining multiple technologies onto a single card. The affordable and durable multi-technology credentials are ideal for organizations using LEGIC technology-based readers and are seeking to upgrade their card population to alternative technologies or to support multiple technologies using a single card.

The cards are designed to facilitate the migration to HID Global’s, next generation iCLASS SE access control platform. The platform goes beyond the traditional smart card model to offer secure, standards-based, technology-independent credentials based on HID Global’s Secure Identity Object (SIO) data model for higher security, interoperability and performance.

The multi-technology smart cards facilitate an easy migration from LEGIC to SIO-enabled credentials, which can be simultaneously used with HID Prox®, iCLASS®, or MIFARE DESFire™ EV1.

### Genuine HID®: Invest with Confidence

As with all Genuine HID products, the LEGIC multi-technology cards are part of the broadest product line of trusted, fully interoperable secure identity solutions in the market and come with guaranteed interoperability with HID Global readers as well as a lifetime warranty. For optimum support, the cards are tested with a wide range of contactless readers in order to guarantee optimal read ranges and interoperability.

Supported by industry-leading expertise and the strongest delivery and response platform available, Genuine HID solutions reinforce the long-standing trust that when customers purchase from HID Global, they are investing with absolute confidence.

**Optional Features:**

- PVC or Composite card construction for increased durability
- Optical security with images, holograms and laser engraving
- Additional magnetic stripe available
- Wide range of additional contact chip modules for use in various logical access applications

### iCLASS®

- 13.56 MHz read/write contactless smart card technology for high-speed, reliable communications with high data integrity.
- Meets ISO 15693/14443B for contactless communications.
- Proven Technology – Offers consistent read range not affected by body shielding or variable environmental conditions.
- Multiple securely separated application areas are each protected by 64-bit diversified read/write keys that allow complex applications and provide for future expansion.
- Durability – Passive, no-battery design allows for an estimated minimum 100,000 reads. Strong, flexible, and resistant to cracking and breaking.

### LEGIC prime 1024

- Basic contactless read/write technology.
- Card technology with proprietary LEGIC algorithm for basic data authentication and encryption.
- 4 bits CRC (checksum: Cyclic Redundancy Check) protecting each card response.
- 4 bytes unique number for the card unique identifier.
- Multi-application memory: Passive data memory (EEPROM) organized in a sequence of segments of variable size.
- Read/write programmable cards with application that can reside in different memory segments.
- Baud rate: 10 kb/s

### SIO Solution for MIFARE DESFire™ EV1

- Interoperable with existing MIFARE DESFire infrastructures.
- Multi-Layered Security – Ensures data authenticity and privacy through HID's SIO.
- Transaction times are less than 100 milliseconds for a typical secure transaction.
- MIFARE DESFire EV1 is fully compliant with ISO 14443A 1-4, and has been awarded Common Criteria EAL 4+ for card security.
- 8 KB of dynamic memory is arranged in easy-to-define application folders and data files.
- DESFire Mutual authentication, AES 128, DES and triple-DES data encryption and unique 56-bit serial number.
- Optional SIO data support.

## SPECIFICATIONS



**SIO Solution for MIFARE DESFire™ EV1 8K / LEGIC® prime 1024**



**SIO Solution for MIFARE DESFire™ EV1 8K / LEGIC® prime 1024 / Prox**



**iCLASS® / LEGIC® prime 1024 / Prox**

Base Part Number	PVC - 293 Composite - 296 Embossable - 298	PVC - 292 Composite - 295 Embossable - 297	PVC - 252 Composite - 262 Embossable - 263
Operating frequency	13.56 MHz for LEGIC prime and MIFARE DESFire EV1	13.56 MHz for LEGIC prime and MIFARE DESFire EV1, 125 kHz for HID Prox	13.56 MHz for LEGIC prime and iCLASS 32k, 125 kHz for HID Prox
Typical Maximum Read Range	LEGIC prime 1024: up to 1.6" (4.2 cm) MIFARE DESFire EV1 8KB: up to 1.9" (5.0 cm)	LEGIC prime 1024: up to 1.6" (4.2 cm) MIFARE DESFire EV1 8KB: up to 1.8" (4.7cm) HID Prox: up to 3.6" (9.2 cm)	LEGIC prime 1024: up to 2.0" (5.2 cm) iCLASS 32k: up to 2.9" (4.3 cm) HID Prox: up to 3.7" (9.4 cm)
Dimensions	2.126" x 3.370" x 0.030" max (5.40 x 8.56 x 0.76 ± 0.076 cm); in accordance to ISO / IEC 781		
Construction	100 % PVC (293) 40% PET/60% PVC (296) Embossable (298)	100 % PVC (292) 40% PET/60% PVC (295) Embossable (297)	100 % PVC (252) 40% PET/60% PVC (262) Embossable (263)
Operating Temperature	PVC: -31° to 122° F (-35° to 50° C) PET: -40° to 158° F (-40° to 70° C)		
Weight	0.19 oz (5.5g)		
Memory Size/ Application Area	LEGIC prime: 1002 bytes user memory area for segments, max. number of segments: 127, dynamic segmentation with variable size of application segment MIFARE DESFire EV1: up to 28 applications with up to 32 files per application	LEGIC prime: 1002 bytes user memory area for segments, max. number of segments: 127, dynamic segmentation with variable size of application segment MIFARE DESFire EV1: up to 28 applications with up to 32 files per application Prox: 512 bits EEPROM memory organized in 16 blocks of 32 bits	LEGIC prime: 1002 bytes user memory area for segments, max. number of segments: 127, dynamic segmentation with variable size of application segment iCLASS: 32 Kb with (16k/2 and 16k/1) or (16k/16 and 16k/1) Prox: 512 bits EEPROM memory organized in 16 blocks of 32 bits
Memory Endurance	min 100,000 erase /write cycles		
Data Retention	min 10 years non-volatile data retention		
Contact Smart Chip Embossable	Yes		
Magnetic Stripe	Optional		
Printable	Yes (white/white card) Usable with direct imaging and thermal transfer printers (from HID Global and from other suppliers), Some exclusion areas for printing are defined		
Slot Punch	No		
HID Secure Identity Services	Customized cards (including custom artwork) are available through HID Secure Identity Services™		
Visual Security Options	Optional including hologram, anti-counterfeiting, holographic foil		
Additional Security Options	Corporate 1000, SE-Elite programming with SIO		
Warranty	Lifetime, see complete warranty policy for details		

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2013-10-31-legic-multi-function-ds-en-PLT-01764