

Multi-Technology Cards with HITAG



HIGH/LOW FREQUENCY iCLASS®/HITAG 1, iCLASS®/HITAG 2 OR MIFARE DESFire™ EV1 SOLUTION/HITAG 1 CARDS

- **Seamless migration** - From HITAG to iCLASS or MIFARE DESFire™ EV1 solution.
- **Interoperable RFID card** - Mutual use of iCLASS with HITAG 1/HITAG 2 or MIFARE DESFire EV1 solution with HITAG 1 combined in one credential.
- **Standard-based solution** - Meets ISO/IEC standards for thickness and use with all direct image and thermal transfer printers.

HID Global's multi-technology contactless cards with high frequency (HF) / low frequency (LF) provide an ideal solution and migration path for customers looking to support multiple technologies with a single card or migrate from an existing card technology to a more secure solution.

The HITAG multi-technology cards are affordable and durable solutions offering more flexibility with the use of 13.56 MHz read/write iCLASS® or MIFARE DESFire EV1 and the 125 kHz HITAG 1/HITAG 2 contactless smart card technologies for credential-based applications.

Genuine HID®: Invest with Confidence

As with all Genuine HID products, the HITAG 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 RFID readers in order to guarantee best 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.

HID Secure Identity Services™

HID Global delivers a comprehensive suite of services to help customers address every aspect of their card issuance requirements, including managing the daily flow of ID card badge requests, large-volume re-badging projects, producing cards with a specific technology, or combining multiple technology platforms (including features such as magnetic stripe, custom graphical artwork and/or barcode) onto one card.

HID Secure Identity Services provides a simple and secure way for customers to upload and communicate all data, photos and other information to the service bureau, while reducing the cost and complexity associated with maintaining and operating a corporate infrastructure.

iCLASS*

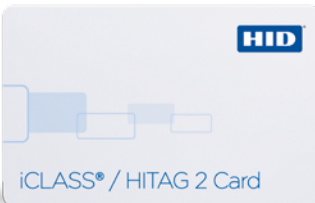
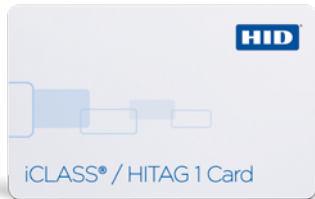
- Read/write contactless smart chip provides high speed, reliable communications with high data integrity, ensuring high security with mutual authentication, encrypted data transfer
- Protected by triple DES encryption using 64-bit diversified keys
- Supports ISO/IEC 15693 and 14443B standards for contactless communications
- 32 Kb standard memory configuration for multi-application
- Durability - Passive, no-battery card design
- Optional Secure Identity Objects™ technology (SIO®) data support for multi-layered security protection

HITAG Technology (HITAG 1/HITAG 2)

- Read/write chip with operation frequency range from 120 to 130 KHz with bidirectional data transmission in full duplex mode
- Anti-Collision protocol support
- Programmable memory configuration with possible write protection by the user
- Unique 32-bits (4 bytes) serial number
- Supports encrypted RFID data transmission and data integrity check

MIFARE DESFire™ EV1

- Based on open global standards for security, and is interoperable with existing MIFARE DESFire infrastructures
- 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
- Mutual authentication, AES 128, DES and triple-DES data encryption and unique 56-bit serial number
- Optional SIO data support



SPECIFICATIONS

	iCLASS 32k / HITAG 1	iCLASS 32k / HITAG 2	MIFARE DESFire EV1 8K / HITAG 1
Base Part Number	202	202	1451
Operating frequency	13.56 MHz for iCLASS or MIFARE DESFire - 125 kHz for HITAG		
Typical Maximum Read Range	iCLASS 32 kb: 2 - 3" (5.08 - 7.62 cm) HITAG 1: up to 2.2" (5.59 cm)	iCLASS 32 kb: 2 - 3" (5.08 - 7.62 cm) HITAG 2: up to 2.2" (5.59 cm)	MIFARE DESFire EV1: 1" (2.54 cm) HITAG 1: up to 2.2" (5.59 cm)
Dimensions	ISO/IEC 7810: ID-1 format 2.127" x 3.375" x 0.030" max (5.40 x 8.57 x 0.076 ± 0.0076 cm)		
Construction	PVC only		
Operating Temperature	-31° to 122° F (-35° to 50° C)		
Weight	0.19 oz (5.5g)		
Memory Size / Application Areas	iCLASS: 32 Kb with (16k/2 and 16k/1) or (16k/16 and 16k/1) HITAG 1: 2048 bits with 64 bytes pages memory organization (4 bytes each)	iCLASS: 32 Kb with (16k/2 and 16k/1) or (16k/16 and 16k/1) HITAG 2: 256 bits organized in 8 pages (4 bytes each)	MIFARE DESFire EV1: up to 28 applications with up to 32 files per application HITAG 1: 2048 bits
Memory Endurance	Min 100,000 erase/write cycles		
Data Retention	Minimum 10 years		
Contact Smart Chip Embeddable	No		
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	Vertical only		
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	For iCLASS: Corporate 1000, Standard Elite programming as well as SE-Elite (with SIO)		
Warranty	Lifetime, see complete warranty policy for details		

North America: +1 949 732 2000
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

hidglobal.com

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