

FlexSmart® Series Credentials

MIFARE® Adhesive Tag • 1435, 1445

- ▶ **Cost Effective** - The benefits of contactless smart cards without the cost of rebadging.
- ▶ **Convenient** - Easy attachment to ID card or other non-metallic device.
- ▶ **Quality** - Tag is protected with a lifetime warranty.



ACCESS interoperability.

HID's innovative FlexSmart MIFARE Adhesive Tag can turn a plastic ID badge into a MIFARE credential. Effortlessly upgrade from prox, magstripe or barium ferrite technology by simply attaching the small, circular MIFARE Tag to your existing card. The MIFARE Adhesive Tag will also adhere to any non-metallic device, such as a cell phone or PDA, to instantly create a contactless smartcard.

HID FlexSmart MIFARE Adhesive Tag is ideal for diverse applications such as access control, cashless vending, public transportation, corporate and campus applications, event ticketing, customer loyalty and photo ID cards.

Manufactured to the highest quality standards, HID FlexSmart MIFARE products have the memory structure and capacity to store multiple applications on a single credential. Securely separated sectors, each protected by a set of two keys and programmable access conditions, allow complex applications and provide for future expansion. The data on the tag is protected with encryption keys used in the mutual authentication process. Therefore, no important data will be shared until the tag and reader have been authenticated to each other.

Key Features

- ▶ **High Security** - MIFARE technology ensures mutual authentication, data encryption and unique 32-bit serial number.
- ▶ **Proven, Reliable Technology** - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
- ▶ **Fast Processing and Data Communication** - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
- ▶ **Multiple Memory Types** - Available in MIFARE 1K and 4K.

Features

Long Life

The passive, no-battery design allows for 100,000 read/write operations and carries a lifetime warranty.

Durability

Strong, flexible and resistant to damage.

Read/Write Functionality

Perfect for multi-functional memory applications.

Memory Specification

1K Byte (8,192 bits) or 4K Bytes (32,768 bits)

Memory Sector 0 is used as the MIFARE® Application Directory (MAD)

- Unique 4 Byte (32 bit) ID per card (CSN)
- Each sector uses two encryption keys
 - Key "A" to read only
 - Key "B" to read/write
- Each encryption key is 6 Bytes (48 bits)

Dimensions	1.285" dia x .07" (3.26 cm dia x .18 cm)
Weight	0.04 oz. (1.2 g)
Typical Maximum Read Range*	Up to 2" (5.0 cm)
Operating Temperature	-40 to 149°F (-40 to 65°C)
Operating Humidity	5%-95% Non-condensing
Operating Frequency	13.56 MHz
RF Interface	ISO 14443 A, Parts 1-3
Transaction Time	< 100 ms
Baud Rate	106 kbps
Memory Type	EEPROM, 1Kbyte (8,192 bits) or 4 Kbytes (32,768 bits)
Multi-Application Memory	MIFARE 1K: memory arranged in 16 64-byte Sectors MIFARE 4K: memory arranged in 40 Sectors: 32 sectors of 64 bytes, 8 sectors of 256 bytes
Write Endurance	100,000 cycles min.
Data Retention	10 years min.
Material and Finish	Matte White Lexan with Adhesive Back
Card Marking	Inkjet Standard
Custom Graphics	Optional
Slot Punch	Not Applicable
Programming	Factory or Field Programmable
Part Number	Model 1435 MIFARE 1K FlexTag Model 1445 MIFARE 4K FlexTag
Description	Self-Adhesive MIFARE Tag
Warranty	Lifetime - see Sales Policy for complete details

*Dependent on local installation conditions.



ACCESS experience.

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