

# FlexSmart® Series Credentials

## DESFire® Card • 1450, 1456

- ▶ **High Security** - Mutual authentication, DES and triple-DES data encryption and unique 56-bit serial number.
- ▶ **Read/Write Functionality** - Perfect for multi-functional memory applications.
- ▶ **True Credit Card Thickness** - Use with all direct image and thermal transfer printers.



### ACCESS interoperability.

HID FlexSmart DESFire Card is an extra-secure credit card-sized credential that complies with ISO 7810 and 7813 standards. It can be used for diverse applications such as access control and biometric identification, cashless vending, public transportation, ticketing, customer loyalty and photo ID cards. Available in PVC and Composite PET/PVC card construction, the HID DESFire card is exceptionally durable, and can accept an embeddable contact chip for logical access and biometric ID systems.

HID DESFire credentials have 4 KB of dynamic memory arranged in easy-to-define application folders and data files. DESFire data can be encrypted with the highly secure Data Encryption Standard (3DES) algorithm assuring that data in the card is secure before, during and after the transaction, as well as between folders and files within the credential itself.

When security and performance count most, HID's FlexSmart DESFire cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo to quickly and easily identify genuine cards.

#### Key Features

- ▶ **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.

# Features

**Long Life** Passive, no-battery design allows for an infinite number of reads.

**Durability** Strong, flexible and resistant to damage.

**Photo ID Compatible** Print directly to the card with a direct image or thermal transfer printer. Slot punch vertically for easy use.

**PVC Card Surface** Card is optimized for dye sublimation printing.

**Customizable** Specify your own text or graphics artwork.

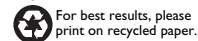
**Thin** 0.030" (0.076 cm) card can be carried with credit cards in a wallet or purse. Use with a strap and clip as a photo ID badge.

**Many Ordering Options** Including magnetic stripe, external card numbering, vertical slot punch, custom artwork, and contact smart chip module.

<b>Dimensions</b>	2.125" x 3.375" x .03" (5.4 x 8.57 x 0.076 cm)
<b>Weight</b>	0.20 oz. ( 6 g )
<b>Typical Maximum Read Range*</b>	Up to 4" (10 cm)
<b>Operating Temperature</b>	Model 1450 PVC Cards: -40 to 122°F (-40 to 50°C) Model 1456 Composite Cards: -40 to 158°F (-40 to 70°C)
<b>Operating Humidity</b>	5%-95% Non-condensing
<b>Operating Frequency</b>	13.56 MHz
<b>RF Interface</b>	ISO 14443 A, Parts 1-4
<b>Transaction Time</b>	< 100 ms
<b>Baud Rate</b>	106, 212 or 424 kbps
<b>Memory Type</b>	EEPROM, 4 Kbytes (32,768 bits)
<b>Multi-Application Memory</b>	Dynamic Memory structure, up to 28 applications
<b>Write Endurance</b>	100,000 cycles min.
<b>Data Retention</b>	10 years min.
<b>Material and Finish</b>	Gloss white/white PVC or PVC/Polyester Composite
<b>Card Marking</b>	Inkjet Standard, Laser Engraving optional
<b>Custom Graphics</b>	Optional
<b>Slot Punch</b>	Vertical slot punch optional
<b>Programming</b>	Factory or Field Programmable
<b>Part Number</b>	Model 1450 PVC DESFire Card Model 1456 Composite PET/PVC DESFire Card
<b>Description</b>	DESFire Card, ISO Thick, Photo Imageable
<b>Warranty</b>	Lifetime - see Sales Policy for complete details

\*Dependent on local installation conditions.

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For best results, please print on recycled paper.

MKT-DESFIRE-CARD-DS-EN



**ACCESS** experience.

[hidcorp.com](http://hidcorp.com)

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