



aptiQ™ Smart Cards

(ap-teeq)

Using MIFARE DESFire™ EV1 Technology

aptiQ smart cards from Schlage put you in control by delivering smarter solutions. This card protects your most sensitive data by utilizing extra layers of security protection – mutual authentication, AES 128-bit diversified key encryption, and message authentication coding (MAC), giving the highest security in the industry to each transaction between the contactless smart card and reader.

aptiQ smart cards from Schlage feature the most rapid data transfer (up to 848 kbps baud rate) in the industry – up to 32 times faster than the most common competing credential system.

The open architecture design of aptiQ is built to ISO Standard 14443 standards allowing a wide range of card applications such as biometrics, transit and point of sale applications such as cashless vending and cafeteria services. Built to the latest in smart card technology (MIFARE DESFire™ EV1), aptiQ smart cards from Schlage utilize superior data storage – 2K, 4K, and 8K bytes (16K, 32K, and 64K bits) of memory, providing up to four times the storage of other leading competitor products.

More secure, more speed, more data storage.
Simply Smarter.



High-level security, open architecture to align with your priorities



Wide read range
Approximately 2.5 to 6 inches*




AES 128-bit key encryption
The same technology used for military and national security applications

Contactless
Reduces wear and maintenance needs

13.56 MHz frequency
Improves data transmission security and speed (up to 848 kbps baud rate)

Storage options
Choice of 2K, 4K and 8K bytes (16K, 32K and 64K bits)

Warranty
Limited lifetime

aptiQ™ Smart Card Specifications			
	ISO Glossy White	Clamshell	PVC Patch
			
Dimensions	Inches: 3.37 x 2.125 x 0.033 mm: 85.6 x 54 x 0.84	Inches: 3.37 x 2.125 x 0.075 mm: 85.6 x 54 x 1.9	Inches: 3.37 x 2.125 x 0.033 mm: 85.6 x 54 x 0.84
Weight	0.212 oz. (6 g)	0.317 oz. (9 g)	0.045 oz. (1.33 g)
Read range*	Up to 2.5 to 6 inches	Up to 2.5 to 6 inches	Up to 2 inches
Frequency	13.56 MHz	13.56 MHz	13.56 MHz
Operating temperature	-50° to 160°F (-45° to 70°C)	-50° to 160°F (-45° to 70°C)	-50° to 160°F (-45° to 70°C)
Material	PVC	Hard shell: ABS Cover label: PVC	PVC/adhesive backing
ISO Standard	ISO Standard 14443	ISO Standard 14443	ISO Standard 14443
Baud rate (data transfer)	848 kbps	848 kbps	848 kbps
Memory options	2K, 4K and 8K bytes (16K, 32K and 64K bits)	2K, 4K and 8K bytes (16K, 32K and 64K bits)	2K, 4K and 8K bytes (16K, 32K and 64K bits)
Encryption	AES 128-bit diversified keys	AES 128-bit diversified keys	AES 128-bit diversified keys
Smart card chip	MIFARE DESFire™ EV1	MIFARE DESFire™ EV1	MIFARE DESFire™ EV1
Certifications	GSC-IS**	GSC-IS**	GSC-IS**
Part numbers†	8520 (2K bytes)	8420 (2K bytes)	8720 (2K bytes)
	8540 (4K bytes)	8440 (4K bytes)	8740 (4K bytes)
	8580 (8K bytes)	8480 (8K bytes)	8780 (8K bytes)

* Factors affecting read range include installation conditions such as voltage, location of power supply and mounting material.

** Government Smart Card Interoperability Specifications.

† Contact a Schlage representative for additional configurations and part numbers.



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