advant

advanced contactless smart card system
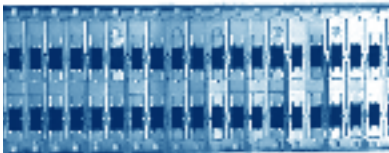
LEGIC ®
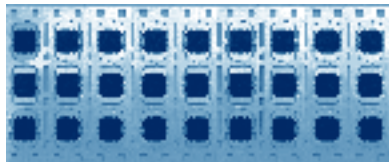
advant   innovation in ID technology

✓ **Wide choice of top security**

Wafer delivery form

MCC2 module delivery form

MOA4 module delivery form

LEGIC advant® Crypto Transponder Chips

The LEGIC advant transponder series offers a wide selection of crypto memory transponder chips for contactless ISO14443 A and ISO15693 applications.

All transponder types provide powerful security and application management. A wide choice of memory sizes and ISO standards is available for basic single applications up to comprehensive all-in-one-card solutions. All transponders have a common application interface.

The transponder chips use LEGIC's unmatched Master Token System Control™ for easy multi-application, security system control and data protection.

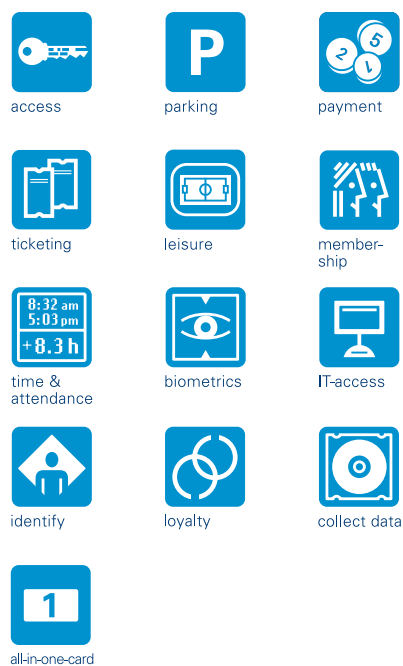| LEGIC advant transponder chip	ATC128-MV	ATC256-MV	ATC1024-MV	ATC2048-MP	ATC4096-MP
RF standard	ISO15693	ISO15693	ISO15693	ISO14443	ISO14443
Memory size	128 byte	256 byte	1024 byte	2048 byte	4096 byte
Typical use	1 - 2 applications: basic access, leisure/re-creation, ticketing	multi-application	multi-application incl. biometrics	full-scale multi-application incl. biometrics	full-scale multi-application incl. biometrics

Standards

ISO

LEGIC RF standard

13.56 MHz
contactless technology

LEGIC advant · fully scalable – fully flexible

advant

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Features

- **Contactless Interfaces:** 13.56 MHz, ISO14443 A or ISO15693 compliant
- **Memory:** memory sizes from 128 bytes up to 4096 bytes. Segments and read/write privileges can be dynamically defined from 16 up to 4096 bytes per application
- **Multi-Application:** easy plug & play multi-application for up to 127 applications
- **Security:**
  - System security & control and key management based on physical tokens (LEGIC Master-Token System Control). Physical token based security avoids insecure passwords and directly translates into true system control for the system owner.
  - Encrypted data transfer and encrypted data storage can be defined per application (AES 128/256 bit, 3DES, DES, LEGIC encryption).
  - All LEGIC transponder chips contain a unique transponder ID (UID) and come with LEGIC SafeID feature (authenticated UID) for enhanced trust.
  - EAL4+ CC certified hardware (ATC4096)
- **Cross-type API:** a common API for all LEGIC advant transponder types is provided for easy and time efficient design-in

LEGIC advant – for single or multiapplications

access parking payment

ticketing leisure member-ship

time & attendance biometrics IT-access

identify loyalty collect data

all-in-one-card

Specifications

	ATC128-MV	ATC256-MV	ATC1024-MV	ATC2048-MP	ATC4096-MP
ISO standard		ISO/IEC 15693		ISO/IEC 14443 A	
Memory size*	128 byte	256 byte	1024 byte	2048 byte	4096 byte
UID		8 byte		4 byte	7 byte
SafeID			yes		
Range**		up to 70 cm		up to 10 cm	
Key management (per app.)			MTSC		
Data transfer / storage encryption (per application)		3DES, DES, LEGIC encryption			AES, 3DES, DES, LEGIC encryption
Cryptographic authentication (per application)		96 bit		64 bit	112 bit
Max. number of applications	8	16	59	123	127
Memory segmentation			dynamic		
Application segment size	16 - 128 byte	16 - 256 byte	16 - 944 byte	16 - 1968 byte	16 - 4096 byte
Data retention			10 years		
EEPROM cycles			100,000		500,000
Baud rates		up to 26.48 kbps		106 kbps	up to 847 kbps***
Delivery form		wafer		MCC2 module	MOA4 module

*   Memory size indications are nominal values. The effective max. number of applications is depending on the memory requirements of applied applications.
** Max. reading range depends on used RF standard, the requirements of national spectrum management authorities, reader application, antenna, transponder and surroundings.
***Actual rate depending on used reader module.

Content is subject to change without prior notice.