advant

advanced contactless smart card system

LEGIC®

advant · innovation in ID technology
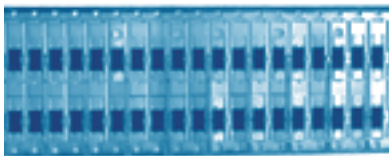
✓ **Wide choice of top security**

Wafer 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 the same 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 standardised application interface.

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

MCC2 module delivery form

LEGIC advant transponder chip	ATC128-MV	ATC256-MV	ATC1024-MV	ATC512-MP	ATC2048-MP	ATC4096-MP
RF standard	ISO15693	ISO15693	ISO15693	ISO14443	ISO14443	ISO14443
Memory size	128 byte	256 byte	1024 byte	512 byte	2048 byte	4096 byte
Typical use	1 - 2 applications: basic access, leisure/re-creation, ticketing	multi-application	multi-application incl. biometrics	multi-application	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

advanced contactless smart card system

LEGIC®

advant innovation in ID technology

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 3680 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 (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.
- **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	ATC512-MP	ATC2048-MP	ATC4096-MP
ISO standard		ISO/IEC 15693			ISO/IEC 14443 A	
Memory size*	128 byte	256 byte	1024 byte	512 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 encryption (per application)			3DES, DES, LEGIC encryption			
Data storage encryption (per application)						
Cryptographic authentication (per application)	96 bit			64 bit		112 bit
Max. number of applications	8	16	59	34	123	127
Memory segmentation			dynamic			
Application segment size	16 - 128 byte	16 - 256 byte	16 - 944 byte	16 - 544 byte	16 - 1968 byte	16 - 3680 byte
Data retention			10 years			
EEPROM cycles			100,000			
Baud rates		up to 26.48 kbps			106 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.

Content is subject to change without prior notice.