

CTC4096-MP410 and CTC4096-MM410

## Flexible migration and scalable security



- ✓ Full MTSC compatibility
- ✓ Communicate via ISO 14443 A, ISO 15693 or LEGIC RF standard
- ✓ Behave like a LEGIC advant IC

## Ingenious smartcard IC with three RF standards

LEGICs CTC smartcard ICs are the perfect choice for migration to LEGIC advant. Combined on a CTC, three RF standards can communicate with the reader IC and are protected against attacks by means of modern encryption algorithms.

### Flexible migration

LEGICs CTC (Cross-Standard Transponder Chip) is the solution for a flexible migration to LEGIC advant. The CTC platform enables users to move between installations with different RF standards.

This means that, depending on security requirements, individual areas can be selectively designed and implemented with prime, 4000 or 6000 series reader ICs.

### Investment security & sustainability

The CTC comes with pre-configured, confidential key material as a standard and uses modern encryption algorithms. At the same time, there is a prime memory on the chip: a LEGIC reader IC can also access the prime memory via the advant interface.

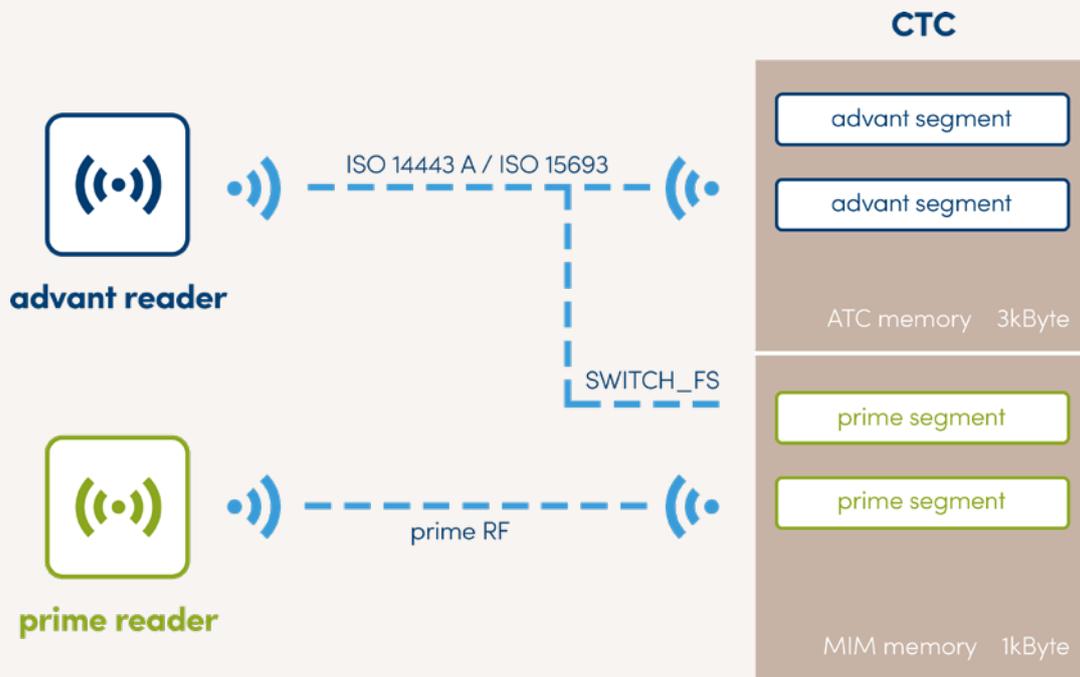
### Advant functionality

Users often use the chip as a migration solution. However, the CTC be-

haves like a normal LEGIC advant IC and can therefore be used equally: Structure, authentication algorithm and use cases are identical.

### Simplified card design

The CTC is a single smartcard IC for different RF standards on one identification medium. For ID media manufacturers, this means a simplified card design with only one antenna and lower costs.



### The route from prime to advant

The CTC platform creates individual and flexible migration scenarios for today's users of prime applications. Instead of having to replace the entire installation in one step, with the CTC platform, the smartcard IC can be switched over to advant and the readers of individual areas to 4000 or 6000 series step by step. Once the full migration to advant has been completed, if desired the LEGIC RF standard interface can be indefinitely disconnected.

#### CTC4096-MP410

The multi-RF smartcard IC with 4k byte memory communicates via ISO 14443 A and the LEGIC RF standard. It enables a flexible migration to LEGIC advant.

#### CTC4096-MM410

The first smartcard IC on 13,56 MHz with three RF standards for all types of multi-application. The reading distance is up to 25 cm and up to 127 applications can be realized on one chip (4k byte memory).

### Technical data

	CTC4096-MP410	CTC4096-MM410
RF standard	ISO 14443 A, LEGIC RF standard	ISO 14443 A, ISO 15693, LEGIC RF standard
Memory size (Byte)	1002/2984	1002/2984
UID (Byte) ***	4/7	4/7
Safe ID	Yes	Yes
Range **	Up to 25 cm	Up to 25 cm
Key management (per application)	Master-Token System-Control	Master-Token System-Control
Data transfer encryption	AES (128 Bit)	AES (128 Bit), Grain 128a
Data storage encryption (per application)	AES (128/256 Bit), 3DES, DES, LEGIC encryption	AES (128/256 Bit), 3DES, DES, LEGIC encryption
Max. number of applications *	127	127
Memory segmentation	Dynamic	Dynamic
Application segment size	Variable	Variable
Data retention (min.)	20 years	20 years
EEPROM cycles (min.)	100,000	100,000
Baud rate (kbit/s)	Up to 424 ****	Up to 424 ****
Delivery form	Wafer	Wafer

\* Memory size indications are nominal values. The actual max. number of applications depends on the memory requirements of applied applications

\*\* The max. reading range depends on the RF standard used, the requirements of national spectrum management authorities, reader application, antenna and transponder surroundings

\*\*\* Regardless of the platform used

\*\*\*\* Depends on the RF standard