

## Java Card Platform

The **IDCore 10** smartcard benefits from the latest release of Java Card technology standards. This Java Card platform is available from Gemalto as an open, multi-application card and is ideally suited for markets such as Identity or Security/Access. It is a Public Key Java Card (supporting both **RSA and elliptic curves**) that meets the most advanced security requirements of long-term, multi-application programs, including those being deployed by large global organizations. IDCore 10 complies with the latest international standards:

- Java Card 2.2.2 (& 3.0.1 for the elliptic curves algorithms)
- Global Platform 2.1.1 (amendment A)
- ISO 7816

## Key Benefits

**Easy application deployment** thanks to the **Gemalto applets** that can optionally be installed:

- MPCOS applet is fully compatible with the high performance native MPCOS Operating System and can be used for secure data management and e-purse applications.
- OATH OTP applet offers One Time Password services

**Optimized memory** (with MPCOS applet code stored in ROM area) extends multi-application capability, large data capacity and lifetime.

### Real Garbage Collector

Memory can be released to the platform in real-time upon object deletion and made available to the applets.

### Performance

IDCore 10 Virtual machine has been highly optimized to offer maximum software performance without compromising security. Combined with the latest generation of high performance silicon, this provides one of the fastest Java Open Platforms available.

### Part of a full range of product and services

Additional benefits from Gemalto's proven Java Card experience and product offer include support, personalization services and integration to Card Management systems.

### Flexibility and Modularity

The open platform principle and interoperability enable the separation of application development (Applet) from the platform. This also supports aggressive time-to-market for introduction of new applications. Existing third-party applets from most vendors can be loaded and cards that are compatible with existing ones can be generated quickly.

### No compromise on security

The IDCore 10 platform implements the most advanced security countermeasures for enforcing protection of all sensitive data and functions in the card.

# IDCore 10

Product characteristics	
EEPROM Memory	<b>80 KB</b>
Standards	JC2.2.2 (and JC3.0.1 for ECC algos) GP2.1.1 (with SCP01 and SCP02)
Cryptographic algos	Symmetric: 3DES (ECB, CBC), AES (128, 192, 256) Hash: SHA-1, SHA-224, SHA-256, SHA-384, SHA-512. RSA: up to RSA 2048 bits Elliptic curves: P-224, P-256, P-384, P-521 bits On-card asymmetric key pair generation
Communication protocols	T=0, T=1, PPS, with baud rate up to 230 Kbps
Other OS features	PK-based DAP (to control the applets that can be loaded on the card) Delegated Management Support of Extended Length APDU Multiple Logical Channels Real Garbage collector (memory space can be recovered after individual object deletion)
Gemalto applets (optional)	
MPCOS	E-purse & secure data management application
OATH OTP	One Time Password application
Chip characteristics	
Technology	80K EEPROM area Embedded crypto engine for symmetric and asymmetric cryptography
Lifetime	Minimum 500,000 write/erase cycles Data retention minimum 25 years
Certification	CC EAL5+
Security	
<p>The IDCore 10 includes multiple hardware and software countermeasures against various attacks: side channel attacks, invasive attacks, advanced fault attacks and other types of attacks.</p>	