

# CmCard/SD



Article-No:  
1040-02-xxx

## Description

The CmCard/SD is the heart of the CodeMeter Digital Rights Management system in a Secure Digital (SD) Memory Card. It contains a SmartCard chip including a secure memory of about 384 kbyte available for storing thousands of licenses plus additional different sizes of flash memory which can be used as a removable drive. The basic idea of the revolutionary CodeMeter concept is that licenses can be stored for many products even from many different vendors at the same time.

License Options are: Text (description of an entry), Unit Counter (number of runs or actually run time of a license), Activation Time (the license is valid from), Expiration Time (the license is valid until), Usage Period (starts at first time), Feature Map (up to 32 modules or versions), License Quantity (concurrent use / floating network licenses), Protected Data / Extended Protected Data (128x256 bytes read-only data), Hidden Data (128x256 bytes only readable with password; usable as secret/private key), Secret Data (128x256 bytes non-readable, only usable as secret/private key), User Data (unsecured 256 bytes), Customer Owned License Information (256 bytes).

Algorithms: 128 bit AES, SHA-256, 1024 bit RSA, 224 bit ECC.

The used SmartCard chip contains a random number generator according to FIPS140-1 and fulfills EAL 4+ (Common Criteria certified).

## Technical Specifications

- **Interface:** SD Card, SDA 2.0
- **CodeMeter license memory:**
  - Data retention: >10 years at room temperature
  - Endurance: >10 million license updates, depending on the license type
- **Flash memory:**
  - Data retention: >10 years at room temperature
  - Endurance: 2 million program/erase cycles typical
- **Power supply:** 2.7 - 3.6 V bus-powered, typ. 25 mA
- **Temperature:** -25... +85 degree C, non-condensing
- **Case / Dimensions:** 32 mm x 24 mm x 2.1 mm
- **Weight:** 2 g
- **Performance:** Read seq. up to 24 MB/s,  
Write seq. up to 23 MB/s

## Certificates

The CodeMeter technology is covered by US 7.145.297 and other patents. The CmCard/SD is tested and qualified with the following standards:

### ■ CE-Conformity | European Certificates

Radiated emissions 150 kHz...6 GHz:

- EN 55022:2006 + A1:2007
- IEC/CISPR 22:2005, modified + A1:2005 limits for Class B equipment

Immunity: Radiated RF electromagnetic field, electrostatic discharge, injected currents (RF) unsymmetrical and fast transients (burst) unsymmetrical:

- EN 55024:1998 + A1:2001 + A2:2003
- IEC/CISPR 24:1997, modified + A1:2001 + A2:2002

The detailed test report from VDE Testing and Certification Institute, File 2387800-3250-0002/120746, 2009-09-08 is available on request.

### ■ International Certificates

FCC Part 15, Subpart B, File 09047-AU01+E01

VCCI 2003-04 (Japan)

KCC 4EX9-OJQ7-G2X9-LDUE, XWK-104X-002-xxx (A)  
(South Korea) July 2010

### ■ Other Certificates

VDE / GS : VDE -Reg-No. 129382

C-UL-US listed I.T.E. Accessory 10 WB, E-File 211202

The encryption device is only for use with UL Listed PCs (low power system). Meets UL 60950-1 and CSA C22.2 No. 60950-1 Safety of Information Technology Equipment.

All CmCard/SD are fully compliant according to EC Directives 2002/95/EC (RoHS) and 2002/96/EC (WEEE).

## Ordering Information

P/N 1040-02-104: CmCard/SD 1GB bulk

P/N 1040-02-105: CmCard/SD 2GB bulk

P/N 1040-02-106: CmCard/SD 4GB bulk



방송통신위원회



RoHS compliant  
WEEE-Reg-No:  
DE 90465365

All dimensions in millimeter.  
Subject to change without  
notice.



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