

# CmCard/SD

## **Description**

The CmCard/SD is the heart of the CodeMeter Digital Rights Management system in a Secure Digital (SD) Memory Card. It contains a smart card chip including a secure memory of about 328 kByte available for storing thousands of licenses. 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 include: Text (description of an entry). Unit Counter (i.e. number of runs or actually run time of a license), Activation Time (time the license is valid from), Expiration Time (time the license is valid until). Usage Period (starts at first use), Maintenance Period (according to release date), 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 (256 bytes, unsecured), Customer Owned License Information (256 bytes).

Used algorithms: 128-bit AES, SHA-256, 2048-bit RSA, 224-bit ECC.

The smart card chip used contains a random number generator and fulfills EAL 5+ (Common Criteria certified).

# **Technical Specifications**

The CodeMeter technology is covered by US 7.145.297 and other patents.

- Interface: SD Card, SD 2.0, SD 3.0 (UHS-I)
- CodeMeter License memory:
  - Data retention: 10 years at room temperature
  - Data endurance:
    - Unit Counter: up to 500 million decrements
    - Other license parameter: up to 10 million updates to one license
- Flash memory: 4GByte SLC flash memory, high performance S8 flash controller
  - Data retention: >10 years at room temperature
  - **Endurance:** 
    - 1.8 TBW (BBM)
    - 16.1 TBW (hyMap) based on JEDEC model
  - Performance: Read seg. up to 75MB/s, Write seq. up to 35 MB/s
- Power supply: 2.7 3.6 V bus-powered, typ. 25
- Temperature: -40° C ... + 85° C, non-condensing
- MTBF (Mean Time Between Failures): > 3
- Case / Dimensions: 32 mm x 24 mm x 2.1 mm
- Weight: 2 g



Article-No: 1040-03-106

#### **Certificates**

The CmCard/SD is tested and qualified with the following standards.

#### 53 **CE-Conformity | European Certificates**

CmCard/SD's are fully compliant with all applicable European regulations.

- 2014/30/EU EMC:
  - EN55022:2010, IEC/CISPR 22:2008
  - EN55024:2010, IEC/CISPR 24:2010
  - EN 55032:2012, AS/NZS CISPR22:2009 +
- All CmCard/SD's also comply with EU Directives 2011/65/EU (RoHS), 2015/863/EU (RoHS amendment), 2012/19/EU (WEEE), 1907/2006/EC (REACH), 207/2011/EU (PFOS -REACH Annex XVII)

## **International Certificates**

- FCC 47 CFR, Part 15, Subpart B (2013)
- VCCI Class B ITE
- KCC. MSIP-REM-XWK-1040-03-1XY (South Korea, 2016-02-24)

# **Other Certificates**

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.

#### **Ordering Information**

P/N 1040-03-106: CmCard/SD 4GB bulk Other storage capacities on request.



RoHS compliant

WEEE-Reg-No: DE 90465365











방송통신위원회



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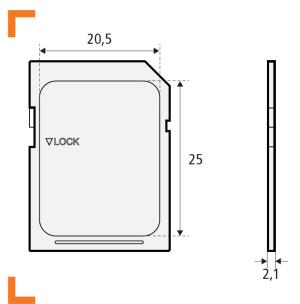
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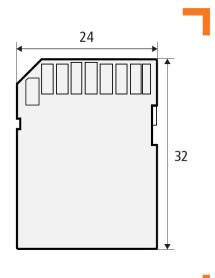


# Technical Drawing

Article-No:

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The SD logo is a trademark of SD-3C, LLC.

All dimensions in millimeters.

Subject to change without notice.

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