

CmCard/microSD

Description

The CmCard/microSD represents the heart of the CodeMeter Digital Rights Management system in a Secure Digital (SD) Memory Card form factor. It contains a smart card chip with a secure memory of about 328 kByte available for storing thousands of licenses; the additional flash memory can also be configured as a secure, encrypted disk with CodeMeter API read and write control.

The basic idea of the revolutionary CodeMeter concept is that licenses can be stored for many products at the same time, with full multi-vendor capabilities.

The minimum set of License Options includes: Text (description of an entry), Unit Counter (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). Encryption algorithms used in firmware 4.52 with serial number 3-3440000 or higher: 128 and 256-bit AES, SHA-256, 1024, 2048 and 4096-bit RSA, 224-bit ECC. The integrated smart card chip fulfills the evaluation level EAL 5+ (Common Criteria certified) and contains a random number generator.

Technical Specifications

The CodeMeter technology is covered by US 7.145.297 patent and others.

- Interface: SD Card, SD 3.01 to 7.1 (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 each license
- Flash memory:
 - 16 GByte pSLC flash memory, high performance S9 flash controller
 - Data retention: >10 years at room temperature
 - Endurance: 482 TBW (hyMap) based on JEDEC model
- Performance: up to 93 MB/s read, up to 76 MB/s write
- Power supply: 2.7 - 3.6 V bus-powered, typ. 20 mA CodeMeter; up to 100mA Disk write
- Operating and storage temperature: -40° C ... + 85° C, non-condensing
- MTBF (Mean Time Between Failures): > 3 million hours
- Case / Dimensions: 11 mm x 15 mm x 0.7 mm
- Weight: 0.5 g
- Warranty: 36 months



Certificates

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

CE-Conformity | European Certificates

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

- 2014/30/EU EMC Directive:
 - EN55032:2015+A11:2020, IEC/CISPR 32:2015+Cor 1:2016, Class B
 - EN55035:2017+A11:2020, IEC/CISPR35:2016
- 2014/35/EU Low Voltage Directive: CB Report UL File E211202-A6001-CB-1, 2025-08-22
 - EN IEC 62368-1:2020+A11:2020
- All CmCard/microSD's also comply with EU Directives:
 - 2011/65/EU (RoHS)
 - 2015/863/EU (RoHS amendment), 2017/2102/EU (RoHS amendment)
 - 2012/19/EU (WEEE)
 - 1907/2006/EC (REACH)
 - 207/2011/EU (PFOS -REACH Annex XVII).
 - EU 2019/1021 (POP Regulation)

International Certificates

- FCC 47 CFR, Part 15, Subpart B (2018)
- SJ/T 11364-2024

Other Certificates

- C-UL-US listed I.T.E. Accessory 10 WB, E-File 211202, AZOT / AZOT7, 2025-08-22: Report UL E211202-A6001-UL

This encryption device is only for use with UL Listed PCs. It meets UL 62368-1, 3rd Ed and CAN/CSA C22.2 No. 62368-1:19, 3rd Ed Safety of Audio/video, Information and Communication Technology Equipment standards.

Ordering Information

- P/N 1041-03-708: CmCard/microSD 16 GB pSLC bulk

Variants with different memory capacities are available on demand.

RoHS compliant
 WEEE-Reg-No:
 DE 12439643

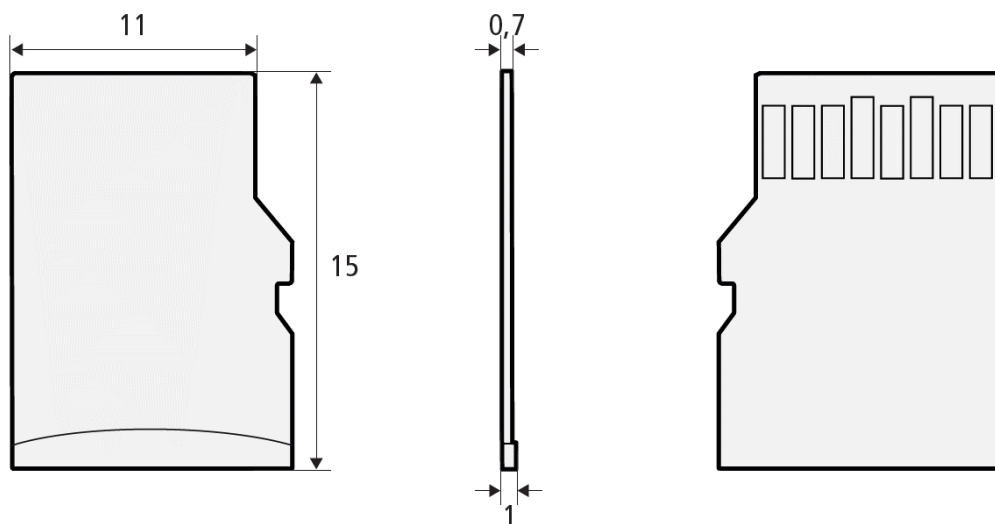


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Article-No:

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Technical Drawing



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

All dimensions in millimeters.

Subject to change without notice.

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