DATASHEET

CmStick/DMI

Article-No:

1011-03-67x

RoHS compliant
WEEE-Reg-No:
DE 90465365

Description

Longtime availability of data and robustness in rugged environments are some of the most important requirements in industrial applications. Standard MLC flash memory cannot fulfill these requirements anymore, so we extended our CmStick/D product family with the pSLC (pseudo SLC) functionality. We've optimized our firmware algorithms for high read access and long data retention applications at high temperatures. This USB device comes in a noble and robust metal case. It contains a smart card chip with a secure memory of about 328 kbyte, which is available for storing thousands of licenses; the additional flash memory, coming in different capacities, can be configured as a removable disk or a private, encrypted disk or a CD-ROM partition or a secure, encrypted disk with CodeMeter API read and write control. Combinations of the different disks are also possible. 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.
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).
CodeMoving enables the execution of encrypted code directly inside the CmDongle, fully isolated from the host system. This protects sensitive code from analysis or tampering.
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 and other patents.

- Interface: USB C-type connector, SuperSpeed USB - USB 3.2 compatible
- Communication protocol: MSD or Composite Device (MSD/HID) or HID only, Composite default.
- Flash memory configuration:
  - removable disk
  - private, encrypted disk
  - CD-ROM partition
  - secure, encrypted disk
- 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.
- pSLC flash memory:
  - Data retention: > 1 year at 2.5 TBW (terabyte written) at 85 °C
  - Data retention: > 3 years at 250 GBW (gigabyte written) at 85 °C
  - Performance: up to 70 MB write, up to 190 MB read
  - Endurance: 20,000 P/E Cycles (Flash Cell Level)
- Power supply: 5V bus-powered, < 130/180 mA @ USB 2.0 / USB 3.2 Gen.1
- Operating and storage temperature: -40° C ... +70° C, non-condensing
- MTBF (Mean Time Between Failures): > 3 million hours
- Case / Dimensions: 32.45 mm x 12.10 mm x 4.5 mm (without USB cap)
- Weight: 4,0 g (3,7 g without USB cap)
- Warranty: 36 months

Certificates

The CmStick/DMI is tested and qualified in accordance with the following standards:

CE-Conformity | European Certificates

CmStick/DMI is fully compliant with all applicable European regulations.

- 2014/30/EU EMC Directive: Report Bureau Veritas File CECFPE-WTW-P22020697A R1, 2025-02-07
  - EN55032:2015+A11:2020 / CISPR 32: 2015+Cor 1:2016, Class B
  - EN55035:2017+A11:2020, IEC/CISPR 35:2016
- 2014/35/EU Low Voltage Directive: CB Report UL File E211202-A6001-CB-1, 2025-08-22
  - EN IEC 62368-1:2020+A11:2020
- EU Directive 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), 1272/2013/EU (PAH-REACH Annex XVII), and 1272/2013/EU (DINP-REACH Annex XVII).

International Certificates

- 47 CFR FCC, Part 15, Subpart B, class B: Report Bureau Veritas File FDCFPE-WTW-P22020697A R1, 2025-02-07
- ICES-003:2020 Issue 7, Class B: Report Bureau Veritas File CICFPE-WTW-P22020697A R1
- VCCI 32-1 Class B g2 ITE: Acceptance No. 2024081018
  - VCCI-CISPR 32: 2016, Class B
- KCC: R-R-XWK-CmStick, 2025-01-20: Report Bureau Veritas File KCCFPE-WAY-P24120012, 2025-01-20
- SJ/T 11364-2024 (China RoHS2)
- BSMI CNS15936: D43250 RoHS, 2025-02-07
- ACMA (RCM): RCM2025021412-K, 2025-02-14
- EAC TP 037/2016: ЕАЭС N RU Д-DE. PA01.B25142/20

D43250
RoHS

Other Certificates

- VDE License No. 129382
- C-UL-US listed I.T.E. Accessory 10 WB, E-File 211202, AZOT / AZOT7, 2025-08-22: Report UL E211202-A6001-UL

Ordering Information

- P/N 1011-03-677: CmStick/DMI 8 GB pseudo SLC

Variants with different memory capacities, custom cases or laser engravings available on demand.

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.

WIBU-SYSTEMS AG
Zimmerstrasse 5
76137 Karlsruhe
Germany
Tel: +49-721-93172-0
info@wibu.com
www.wibu.com

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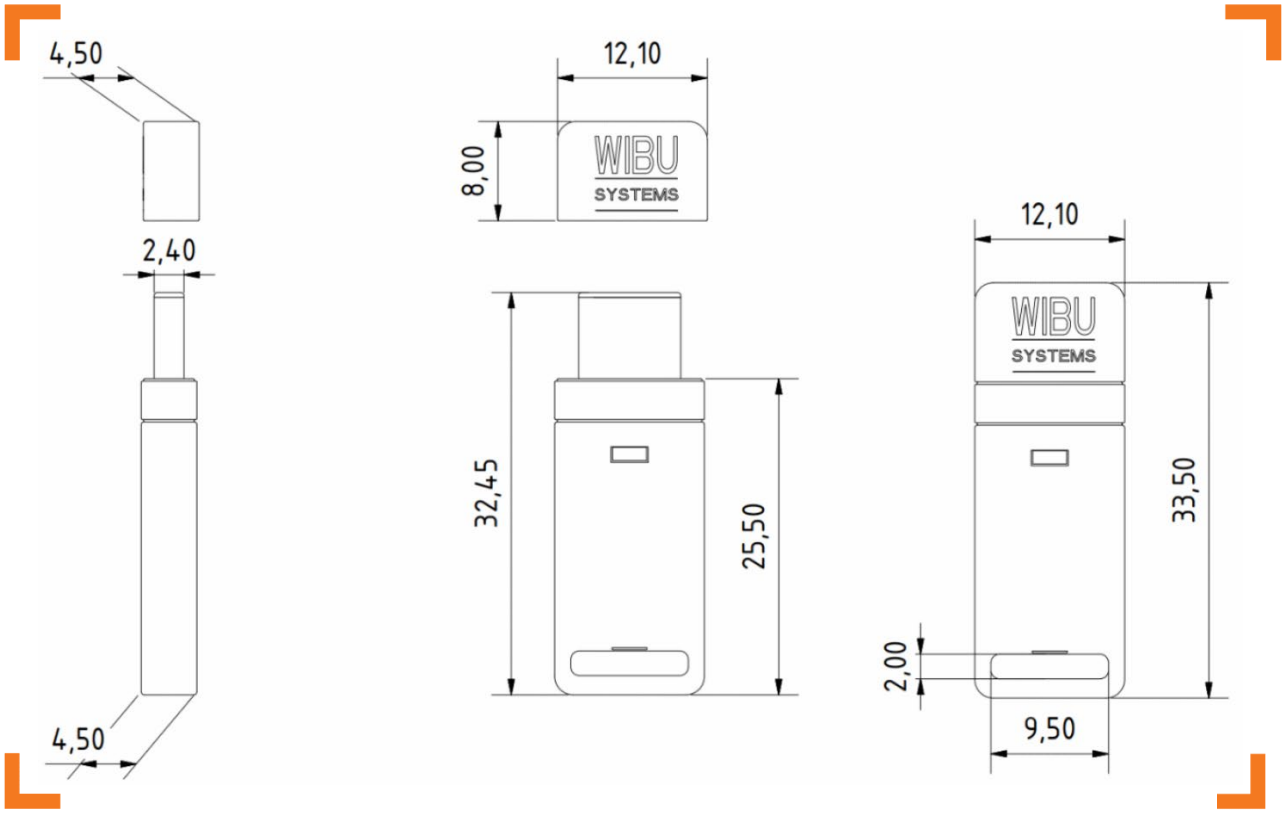
Technical Drawing



All dimensions in millimeters.

Subject to change without notice.

WIBU-SYSTEMS AG
Zimmerstrasse 5
76137 Karlsruhe
Germany
Tel: +49-721-93172-0
info@wibu.com
www.wibu.com