

CodeMeter ASIC



Article-No:

1 5 0 4 - 0 3

Description

CodeMeter ASIC represents the heart of the CodeMeter Digital Rights Management system. It contains a smart card chip with 1 MByte secure memory, including a minimum of 328 kByte available for storing CodeMeter licenses.

Encryption algorithms used in firmware 4.22 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 contains a FIPS 140-1 compliant random number generator and also complies with the evaluation level EAL 5+, including the crypto-library.

Technical Specifications

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

- Interface: USB and SPI
- Full CodeMeter functionality
- 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
- Power supply: 3.3V VCC, 10mA @idle / 21mA @max
- Temperature: -40 °C...+105 °C operating, non-condensing
- MTBF (Mean Time Between Failures): > 3 Million hours
- Dimensions: VQFN-32 package, 5 mm x 5 mm x 0.9 mm

RoHS compliant
WEEE-Reg-No:
DE 90465365



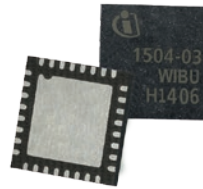
PIN Definition and Function

PIN Definition and Function	Package VQFN-32
VSS (GND)	17
MS Mode Select (GND = SPI, VCC = USB)	19
DM (USB-, leave open if not used)	20
DP (USB+, leave open if not used)	5
Reserved (PIN must be left open)	6
RST (control input, reset signal, active low)	7
VCC (supply voltage)	8
GPIO 0, SPI_MOSI (input, slave receive)	10
GPIO 1, SPI_MISO (output, slave transmit)	11
GPIO 2, SPI_SCK (serial clock, idle high)	12
GPIO 3, SPI_CS (chip select, active low)	13

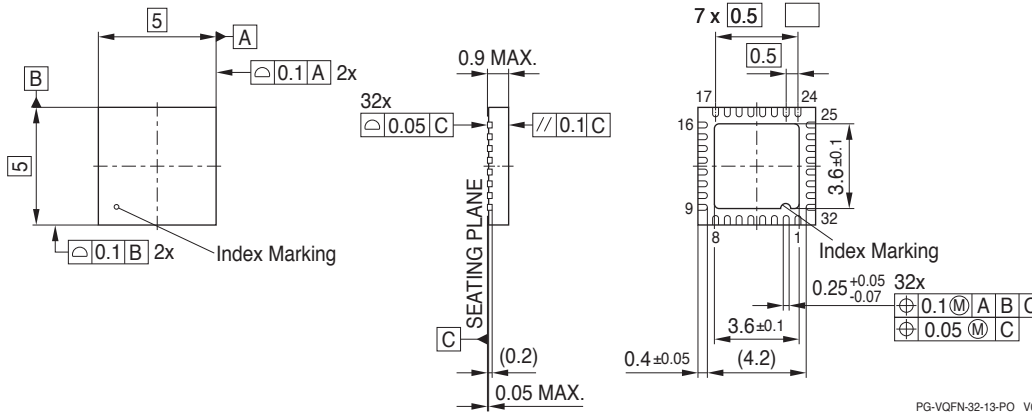
All dimensions in millimeter. Subject to change without notice.

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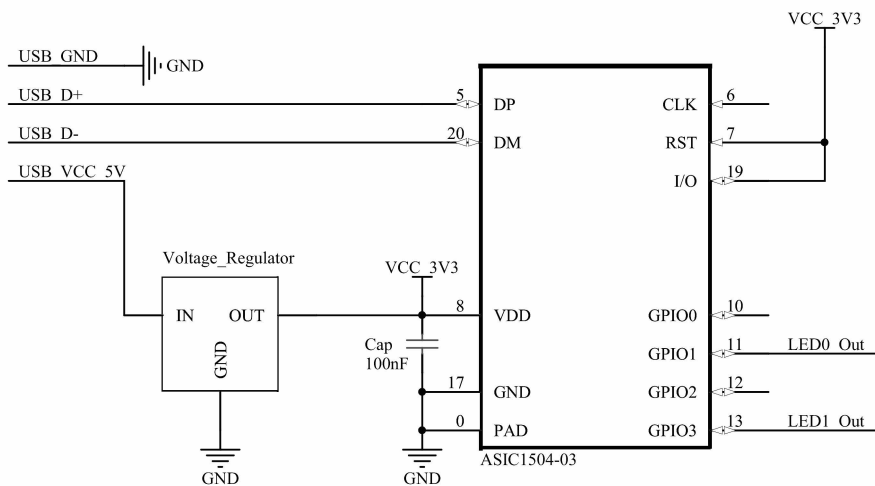


Technical Drawing



Schematic

Only for reference and evaluation with USB interface. All other PINs (including CLK and RST) must be left open.
GPIO1/GPIO3 are used for LEDs (push-pull, total driver-strength max. 4mA, eg. 2mA per LED). Leave open if not used.



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