Virbox Elite 5 RRTC

Powerful smart dongle with Rechargeable Real Time Clock inside to prevent and against clock tamper behavior to time based or subscription based licensed software. Rechargeable battery and clock integrated into the dongle to keep the dongle clock operate independently from computer system clock.

Product Description

The Virbox EL 5 RRTC is designed to prevent and against the clock tamper behavior to the time based licensed software or equipment which is used to setup usage limitation by time and protect software vendor's benefit.

For Virbox EL5, there is virtual clock functions provided to software vendor to control software expiration date and time defined in the time based license. The time of Virtual Clock will be synchronized with Virbox LM in online environment, and synchronized with local computer system time in offline environment..

In some circumstance, Virtual Clock function integrated in the Virbox EL5 is not enough to strictly control the time accuracy of licensed software. Software users may tamper the time of licensed software by changing the computer system time to extend the time to use the software or hardware equipment. Software vendor or hardware equipment vendor have to use independent real-time clock dongle to set the limitation to software users to prevent potential revenue loss or for other special purpose. Such as to collection final payment, overdue to large value of equipment contract, equipment leasing contract , or Examination which need to strictly set up the start time and end time by use of RRTC dongle to set the time limitation to licensed software or hardware equipment, and can successfully prevent potential time tamper behavior and prevent potential loss happening.

Except real-time clock related features and specification, the rest of technical features, specifications, license modes and secure functions for Virbox El5 RRTC are compatible with or same as to normal Virbox El5. For details of technical feature of Virbox EL5 RRTC, please refer to the datasheet of Virbox EL5.

Highlight of Elite 5 RRTC:

- Built in real-time clock chipset and rechargeable battery inside of EL5 RRTC Dongle, the EL5 RRTC Dongle time works independently from computer system time even in offline environment, prevent tampering with long battery life and battery power endurance;
- Built in rechargeable battery and support long time work in power off state (max. work time up to 8 months per rechargeable (charging) to battery);
- High Time Accuracy: ± 0.4s/day, ±150s/year, clock chip supports temperature compensation, to maintain time accuracy;
- Clock Calibration: The user can calibrate the clock using the Virbox User License Tool;
- Clock Switching: In case of multiple power failure, there will be errors and deviations in the time of the EL5 RRTC, and the RRTC will switch and start the Virtual clock to control the time limitation to licensed software;
- Support remote upgrade of licenses, re-issue licenses to software users to extend software licenses.

Security Functionality available as follows:

- Dedicated and Unique SDK for each software developer;

- Software protected by top security enveloper tool(Virbox Protector): VM inside and multi encryption technology integrated, with easy to use and effortless feature;

- Pro Active Detection & Defense Technology to protect software in whole lifecycle: Anti-Hacker Engine(Support Virbox License Service); Anti-Debug, Anti-Hook, Anti-Reverse Engineering, Anti-Emulation to prevent different hacker attack behavior;

- Secured Communication Tunnel between dongle, API & applications which would prevent cracker to create fake license;

- Code Fragmentation Execution & Code Port to enhance software encryption level and also will save workload;

- Master Lock with PIN verification function available for each developer to ensure the authorized person can protect the software and issue license only. Elite 5 RRTC supports multi license mode & license remote renewal/update.

Elite 5 RRTC can be used standalone or can be used to connect to Virbox LM (Virbox Developer Center) to provide advanced protection and license functionality to software vendor.
Elite 5 RRTC is top level Security tool to protect your software & IP and widely used and well proofed to protect software copyright and IP in different industry.

Technical Specifications

	EL5 RRTC
Smart Chipset	ARM SC300, 32 bit Processor
Execution Speeds	50MIPS/10DMIPS
I/O	360Kb/s
RAM	10Kb/s
Flash Memory	256Kb/512Kb
OS	Sense COS
No. of Licenses stored	3000/6000
Writing cycles	16.5M
Data retention	10 Years (25 °C)
Interface	USB 2.0 high speed rate
Security Level	CC EAL5+
Encryption algorithms	RSA 1024/2048 ECC 192/256/384 AES 128/192/256 DES/TDES SHA 1/256
OS Supported	Windows XP or above Linux, Mac
Program Language	C/C++, Delphi, C#, Java, VB, .net, ..., etc.,,
Case Material	Aeronautical Aluminum - Magnesium Alloy
Power Consumption	Max. 110 mw
Power Supply	4.5V~5.5V
Max Power Output	<20V
Working temperature	-20 °C~60 °C
Store Temperature	-20 °C~60 °C
Clock inside Time Accuracy	+/-0.432 s/day;+/-2.5 Min/Year
Rechargeable Battery Power Endurance	8-10 Months
Battery Life Time	>5 Years
Battery Rechargeable Times	>500 times

Case Dimensioning(All dimensions in millimeter):
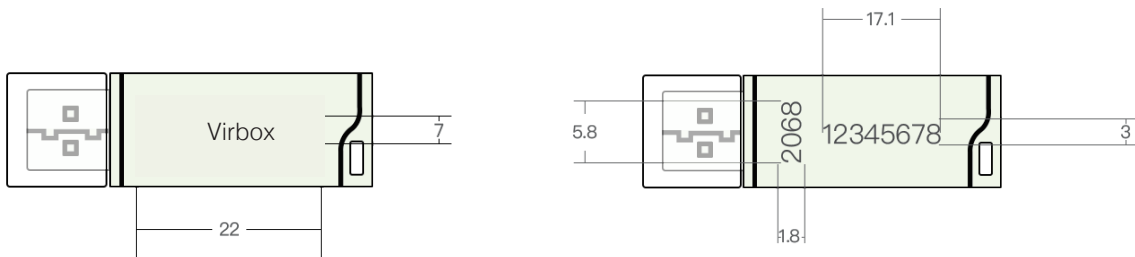
Unit:mm

Certificates

The Elite 5 RRTC is tested and compliant with following Standards
CE, Test Report No.: SHEM180700575901, latest update: 2018-08-23;
FCC, Test Report No.: SHEM180700575601, latest update: 2018-08-23
RoHS, Verification Report No.: TSNEC1801257402, latest update: 2018-08-14
WEEE, Report No., TSNEC1801257602, latest update: 2018-08-09
SVHC, Test Report No.: No. TSNEC1801256802; latest update: 2018-07-12 (Dongle)
SVHC, Test Report No.: No. TSNEC1801215802; latest update: 2018-09-03 (Battery)