Virbox EL 5 Acme RRTC

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

Product Description

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

For EL5 Acme, there is virtual clock functions provided to software vendor to control software expire 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 Acme 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 due to 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 are supported and secure functions for EL5 Acme RRTC are compatible with or same as to those of normal EL5 Acme. For details of technical feature of Virbox EL5 Acme RRTC, please refer to datasheet of Virbox EL5 Acme.

Highlight of Elite 5 Acme RRTC:

- Built in real-time clock chipset and rechargeable battery inside of EL5 Dongle, the EL5 Dongle time works independently with computer system time even in offline environment, prevent tampering with long battery life and battery power endurance;
- Built in rechargeable battery with and support long time work in power off state (max. work time up to 8 months per rechargeable 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 failures, there will be errors and deviations in the time of the EL5 RRTC, and the Acme 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;
- Supports work in a variety of harsh environments, resists violent vibration, resists falling, resists over-voltage and over-current, and has good anti-interference performance and prevents the hurt and damage to chipset caused by electrical surges; Applicable for all kinds of environment;

Security Functionality available as follows:

Dedicated and Unique designed 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 with 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 prevent cracker to create fake license;
Code Fragmentation Execution & Code Transplantation 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 protection the software and issue license only

Elite 5 Acme RRTC supports multi license mode & license remote renewal/update.

Elite 5 Acme RRTC can be used standalone or can be used to connect to Virbox LM (Virbox Developer Center) to provide advance protection and license functionality to software vendor.

EL5 Acme RRTC is Smart Dongle designed and support to be used in different kinds of harsh environment, the principal to design for IE5 Acme includes:
All component for EL 5 Acme RRTC version has been adopted IE level component, support working environment from -20 °C~60 °C;
Special designed case to shield the chipset to resistant electric magnetic interference; Over Voltage and Voltage Turbulence protection to hardware;

Elite 5 Acme is top level Security tool to protect your software & IP and are widely used and well proofed to protect software copyright in different industry.

Technical Specifications

	EL5 Acme RRTC
Smart Chipset	ARM SC300, 32 bits Processor
Execution Speeds	50MIPS/10DMIPS
I/O	360Kb/s
RAM	10Kb/s
Flash Memory	256Kb
OS	Sense COS
No. of Licenses stored	3000
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	Zinc 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):
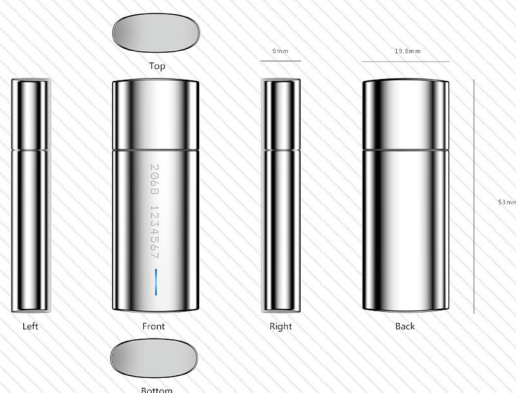
Certificates

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