

# Elite EL RTCC



## **Re-Chargeable Real-Time Clock Dongle**

Elite EL RTCC is a hybrid of Elite EL STD and real-time clock. Its time calculation is driven by an internal clock which is battery-driven and sustainable for at least 3 years. Its unique design tackles license misuse by computer clock adjustment. It is an ideal dongle solution for license rental and trial management. An added attribute of the EL RTCC is that its battery can be repeatedly charged/discharged. When not connected to a host computer, the EL RTCC runs on its internal battery, but once connected, it runs on a charge from the host, while at the same time recharging its internal battery. Elite EL RTCC is the state of the art in advanced dongle technology today.



## **Ultimate Protection**

The ultimate in dongle protection, based on an excellent chip (EAL 5+), Elite EL RTCC is ideally suited to demands of the highest level of dongle security for protecting high end products from piracy. The Elite EL RTCC is designed and manufactured to explicit manufacturing norms (ISO/IEC 10373, ISO/IEC 15408), formulated in accordance with international criteria EAL (Evaluation Assurance Level), and ranked in the international 1-7 grading system for scientific evaluation of chip security.



## **Chip Power**

The EL RTCC employs internal LDO power-supply management, so when connected with a host computer, the internal power-supply management automatically switches to external power-supply, which charges the battery simultaneously. Insufficient battery power is alerted by a LED light indicator on the dongle.



## **Best Chip Security**

EAL 5+ is at the upper limit of current technical advancement in smart chip security. Elite EL RTCC is equipped with the most advanced 16-bit smart card chip making it a state of the art EAL 5+ implementation for the global hi-tech sector. EAL 5+ means that the Elite EL provides outstanding effectiveness in resistance of major attacks such as Electronic Attack (SPA and DPA), Probe Attack (SiShell), Chip Dissection and Debug Port.



### **Code-Port Solutions**

Code Port is an evolutionary technique for transferring key codes from protected software to a dongle under secure communication. When a corresponding dongle is plugged, the protected application calls specific API functions to run key codes and data stored in the dongle and return legal results, so as to complete the full operation of the protected application. As the codes and data stored in the dongle do not have copies at the PC end, malicious crackers are unable to retrieve algorithms or data by physical interception.



### **Handy Remote Update**

Dongles can be updated remotely without the need for callback. The updating process is reliable and secure, therefore hugely improving work efficiency and saving greatly on management and logistics costs.



### **Smart Technology**

As distinguished from conventional chip technology, the Elite EL smart card chip contains a high performance cryptographic algorithm accelerator or coprocessor. A smart card chip of this nature can be viewed as a highly integrated mini PC. Now, let us see how smart it truly is:

- **Automatic self-locking mechanism**

Access to the chip is protected by PIN with the maximum number of re-tries pre-set by software developers. So under a dictionary attack, once the number of re-tries exceeds the pre-set value, the chip triggers a self-locking mechanism and blocks all external running operations.

- **Unique serial number**

A global unique SN that cannot be altered or rewritten is assigned to the smart card chip. This puts an end to piracy and enables effective management of the released chips.

- **Hardware random number generator (White Noise Technology)**

The smart card chip produces a high security random number, enabling the implementation of more secure solutions.

- **Built-in timer**

The timer is a very useful component for software protection that applies to time-limited usage and anti-tracking. The Elite EL has a built-in timer lasting more than 10 hours, considerably longer than similar competitor products.

● **Driverless**

In full compliance with USB-HID device interface specifications, Elite EL RTCC dongle can be used in most operating systems without additional device drivers. This greatly reduces the difficulty of deployment and maintenance.



**Specification**

CPU	16-bit, 16MHz	Smart Card
RAM(bytes)	VM Mode	254+2047
<b>Memory(bytes)</b>	<b>64K</b>	
IO Buffer(bytes)	250	
Working Voltage	DC 5V +/- 5%	
Max Consumption	1000mW	
Working Temperature	0°C~70°C	
Data Retention	10 Years	Typical
Rewritable	100,000 times	Lowest
Connection Type	USB 1.0, USB 2.0	
Encryption Algorithm	RSA, DES, TDES, SHA1	
Connection	Driver or HID	



**Operating System Supported**

Windows 98SE/ME, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Windows Server 2003, Windows Server 2008, WinCE, Linux, MacOS



**Programming Language Supported**

VC++, C++ Builder, BC, VC6, VS2005, VS2008, Delphi6, Delphi7, Delphi2010, VB6, VB2008, PB, AutoCAD, C#, Java and more.