

# **UrKey**

## ***White Paper***

***Version 1.0***

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## USB-based Dongle for Data Security

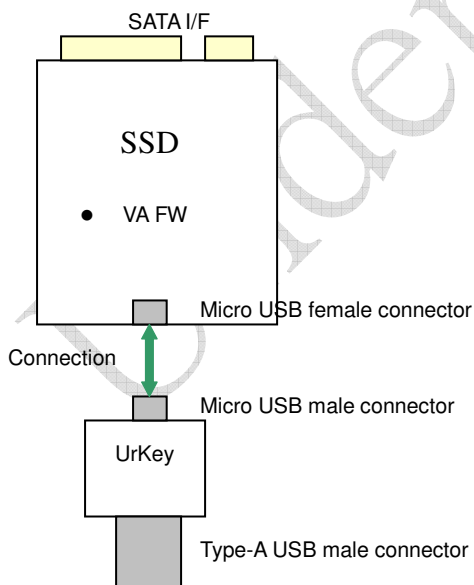
Apacer UrKey is a USB-based dongle for data security. It acts as a token for activating or triggering security functions. Basically, the USB dongle, also known as UrKey, is pre-programmed with a designated Apacer VA (Value-added) security features among Erase, Destroy, or Protect, depending on requests.

When the UrKey is connected with its pairing SSD, the SSD VA firmware will attempt to detect the USB device. The firmware will first check the identification of the UrKey. If the identification in the dongle matches with the one of the SSD, the firmware will continue to read the security code and execute the security feature based on the pre-loaded identification.

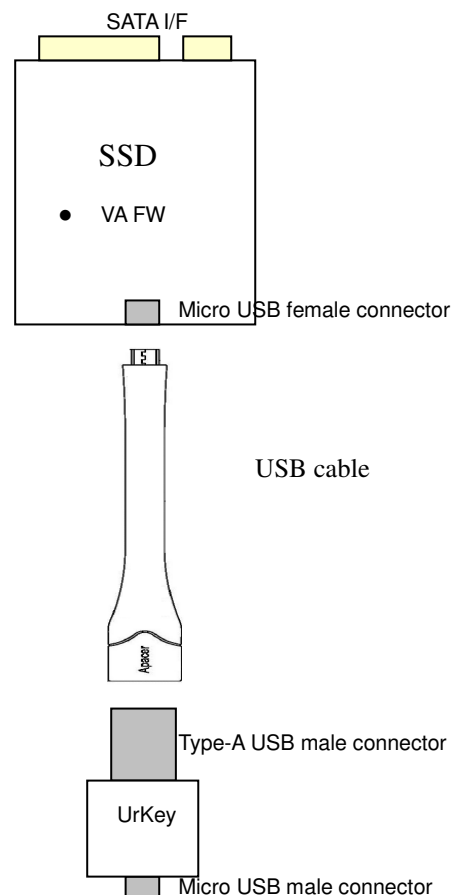
Notably, each UrKey is unique to its pairing SSD due to the identification recognition process. In other words, the identifications between the UrKey and the SSD have to match in order to trigger the security feature. If the UrKey is connected with another SSD, the drive firmware would not be able to recognize the identification and thus no function will be triggered.

In terms of the hardware design, the UrKey is made as dual USB device so that connections can be established through micro USB or USB type-A depending on applications. Notably, since the pairing SSD is built with a micro USB port, connection through USB type-A will require a micro USB-to-USB cable.

### Hardware connection via micro USB



### Hardware connection via USB OTG cable



Note: VA (Value-added) indicates Apacer security features.

Operation wise, the UrKey can activate Erase, Destroy or Protect depending on customized requests. However, the methods to trigger may vary. For instance, to trigger Erase or Destroy, simply insert the UrKey and the corresponding feature will be executed automatically. The process will be performed continuously until it is completed, even if the UrKey is removed. In contrast, Write Protect is enabled when UrKey is unplugged. To use the SSD in normal status, plug the UrKey.

	Erase & Destroy
Insertion	Activate

	Write Protect	Read	Write
Insertion	Disable	√	√
Removal	Enable	√	X

## Revision History

Revision	Date	Description	Remark
0.1	04/24/2014	Preliminary	
0.2	04/28/2014	Revised the wording regarding the operational respect	
0.3	05/07/2014	Removed the first paragraph Revised the tables	
1.0	05/13/2014	Official release	