



PREAUS – Datasheet

PREAUS features

- Strong full-device encryption of **any USB storage** device of **any capacity** with **any file system** on **any platform** for fully secure data storage
- Easy to use **real-time hardware AES crypto USB dongle device** for securing any USB storage
- **No special setup required** on the user's computer
- **No training required** even for users with minimal computer use experience
- **Compact ultra-portable design** for **anytime-anywhere use** as a personal data security device
- Each **PREAUS** device instance is protected by a unique hardwired Authentication Code
- Each **PREAUS** encrypted USB storage device is protected by a user-specified Pass Phrase
- **Protected** storage mode enables secure sharing of encrypted data on a USB storage with another authorized **PREAUS** user
- **Private** storage mode secures data for exclusive access using the same physical **PREAUS** device
- **Unicode onscreen virtual keyboard** for easy-to-remember Authentication Code and **Pass Phrase in international and Indian languages**

PREAUS usage

- Fully secure data storage on any USB mass storage device of any capacity – strong protection of data against loss, theft, or unauthorized access of USB storage media
- Safe and fully secure data sharing with specific authorized users through portable USB drives
- No loss of data security from loss of a **PREAUS** device – protected by Authentication Code and locked after 3 consecutive failed authentication attempts. Replacement order for a lost **PREAUS** device guaranteed for **PREAUS** users registered with **Morphing Machines**

PREAUS specifications

- Global industry standard strong AES encryption
- Dynamically selectable **AES 128-bit, 192-bit, and 256-bit encryption key** strengths
- **Protected** storage mode encryption key computed from the user-specified Pass Phrase for a specific USB storage device
- **Private** storage mode encryption key computed from the **PREAUS** Authentication Code combined with the user-specified Pass Phrase for a specific USB storage device
- Encryption key strength and storage mode settings auto-remembered for next use
- In-line encryption/decryption in real-time at auto-detected USB speed **up to USB 3.0 SuperSpeed**
- Works automatically on any computer running GNU/Linux, Mac, Windows, and other operating systems supporting USB
- **Up to 3 layers of security** – physical possession of a **PREAUS** device, unique Authentication Code for the **PREAUS** device, and Pass Phrase set for the specific storage device – all required to access encrypted data on the storage device
- Multiple port configurations available with 1–16 USB ports for connecting USB storage devices



PREAUS 4 (**PREAUS** dongle with 4 USB ports for connecting USB storage devices)

Artistic impression only. Actual product design may differ from image shown above.

Information on **Morphing Machines** and its technologies is overleaf. More information on **Morphing Machines** technology, IPs, products, solutions, and services is available at <http://morphing.in>



Related Offerings

PREAUS – the future

- **PREAUS** – Base product in the **Morphing Machines** data security solutions portfolio
- The **Morphing Machines** data security portfolio also includes the following solutions
- **PREAUS-I** – Encrypts internal SATA hard disks on a computer for end-to-end system security
- **PREAUS-B** – Supplements 3-layer **PREAUS** security model with additional security layers using biometrics of the owner
- **PREAUS-P** – Provides *secure hot-line for on-line communication* between two predetermined parties using a set of specially paired **PREAUS** devices

Related solutions and services

- Customized tablet computers and smart phones with on-board storage secured by a **PREAUS** core
- Large scale encrypted external storage arrays for data centers protected by **PREAUS** technology
- **Morphing Machines** offers other custom security solutions based upon the **PREAUS** core product to address the specific needs of select customers
- Consulting services are offered to customers in collaboration with our selected partner companies on designing and implementing high security for big data applications using **Morphing Machines** hardware accelerated real-time strong encryption technology

About Morphing Machines

- **Morphing Machines Pvt Ltd** is a closely held fabless semiconductor company launched from the Technology Entrepreneurship Initiative of the **Indian Institute of Science** at Bangalore, India
- Emerging as one of India's most exciting cutting-edge IP focused technology start-up companies, **Morphing Machines** featured as one of the four global start-up semiconductor companies in the **Cool Vendors 2011** report of **Gartner Research**
- Founded by a group of distinguished IIT and IISc alumni with decades of rich experience at world-leading semiconductor, computer, communication, and software technology corporations
- Working in close collaboration with research groups at the **Indian Institute of Science** at Bangalore, **Morphing Machines** has created an exciting portfolio of **reconfigurable silicon cores**

Technologies and Key IPs

- **REDEFINE** – Platform for design and realization of runtime reconfigurable **Massively Parallel Processor** and **Heterogeneous Multicore Processor** hardware accelerators and SoCs supported by the parallelizing **REDEFINE C Compiler**
- Breakthrough solutions in multi-protocol **cryptography**, **numerical computation**, and other domains
- **REDEFINE XNOC** – Scalable high-performance deadlock-free **Network-on-Chip** framework with reconfigurable topologies and multiple interfaces for rapid realization of complex SoCs
- **MM RAES**, **MM RECC**, **MM SHARC** – Optimized IPs for strong AES encryption / decryption, elliptic curve cryptography, and secure hash functions
- **MM FPUX** – High-performance floating-point unit IP supporting multiple precisions and special functions

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