

# Security Mate

Mini-PCI Security Card for PC-based gaming platform



## Overview

With the increasing amount of PC-based embedded systems on the gaming market, embedded hardware and embedded software represent an important economical factor. From this point of view it is necessary to protect the system from unlicensed copying or distribution. Another aspect is the need to protect the embedded systems from unauthorized development and reverse engineering in terms of quality assurance.

A hacker can attack in several ways but most likely focuses on the embedded security device. Depending on the demanded level of security and the costs restraints, several methods exist for fulfilling the following requirements:

- Programmable
- Read protection of the content
- Implementation of algorithms
- Implementation of additional functions (e.g. watchdog, sensor interface, boot-up logic)
- Copy management / prevention

In general all these requirements are met by low cost single chip microcontrollers or programmable logic devices (FPGA, CPLD)

The Security Mate is a Mini-PCI card to provide the Battery backup SRAM, EEPROM, TPM and FPGA security features for PC-base gaming platform; it's easy to incorporate with the main board by plugging in Security Mate, there is ready driver in Windows XP, XP embedded, and Linux OS system with example programs to access the NVRAM, EEPROM and TPM easier.



## Specification Highlight

ITEM	CONTENT
FPGA	Lattice MachXO-1200
NVRAM	2 BANKS of 256KB / 512KB / 1MB
EEPROM	64 Byte
Battery	3V Li-Battery with battery fail detection
Unique Serial ID	48 bits
Custom Unique ID	32 bits
Security	TPM (option)
Dimension	TBD
Power Supply	3.3V DC
Supported OS	Windows XP/XPe/CE and Linux
Power LED indicator	x 1
Rest button	x 1

## Ordering Information

ITEM	CONTENT
PMIO-3400-256	Mini-PCI Security Card, 256 KB x 2
PMIO-3400-512	Mini-PCI Security Card, 512 KB x 2
PMIO-3400-1000	Mini-PCI Security Card, 1 MB x 2

## About GZ TECH

We are member of Microsoft Embedded Partner, has more than 150 years' combined engineering experiences in Industrial and Gaming Solutions, especially X86 and ARM series processors with Windows XP/XPe/CE, and Linux support. Our focus is to provide complete system level solutions for the customers to develop reliable and cost effective embedded products such as Industrial controller, HMI, POS, Kiosk, Gaming, Medical and Advertisement solutions.



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