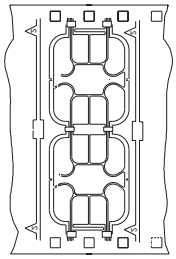
ST19SF08

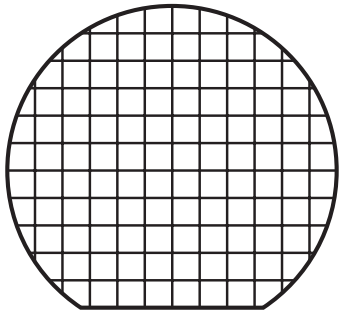
Smartcard MCU With 8 KBytes EEPROM

DATA BRIEFING

- 8 BIT ARCHITECTURE CPU
- 32 KBytes of USER ROM WITH PARTITIONING
- SYSTEM ROM FOR LIBRARIES
- 960 Bytes of RAM WITH PARTITIONING
- 8 KBytes of EEPROM WITH PARTITIONING
  - Highly reliable CMOS EEPROM technology
  - 10 year data retention
  - 100,000 Erase/Write cycle endurance
  - Separate Write and Erase cycles for fast “1” programming
  - 1 to 64 bytes Erase or Program in 1 ms
- SECURITY FIREWALLS FOR MEMORIES
- VERY HIGH SECURITY FEATURES INCLUDING EEPROM FLASH PROGRAM AND RAM FLASH CLEAR
- 8 BIT TIMER
- SERIAL ACCESS, ISO 7816-3 COMPATIBLE
- 3V ± 10% or 5V ± 10% SUPPLY VOLTAGE
- POWER SAVING STANDBY MODE
- UP TO 10 MHz INTERNAL OPERATING FREQUENCY
- CONTACT ASSIGNMENT COMPATIBLE ISO 7816-2
- ESD PROTECTION GREATER THAN 5000V



Micromodule (D4)



Wafer

*CRT: Chinese Remainder Theorem

This is Brief Data from STMicroelectronics. Details are subject to change without notice. For complete data, please contact your nearest Sales Office or SmartCard Products Divison, Rousset, France. Fax: (+33) 4 42 25 87 29

HARDWARE DESCRIPTION

The ST19SF08, a member of the ST19 device family, is a serial access microcontroller especially designed for very large volume and cost competitive secure portable objects.

The ST19SF08 is based on a STMicroelectronics 8 bit CPU core including on-chip memories: 960 Bytes of RAM, 32 KBytes of USER ROM and 8 K Bytes of EEPROM.

RAM, ROM and EEPROM memories can be configured into partitions. Access rules from any memory partition to another partition are setup by the user defined Memory Access Control Logic.

It is manufactured using the highly reliable ST submicron technology.

As all other ST19 family members, it is fully compatible with the ISO standards for Smartcard applications.

SOFTWARE DEVELOPMENT

Software development and firmware (ROM code/ options) generation are completed by the ST16-19 HDS development system.

Figure 1. Block Diagram

