

# HMS38T2564

*32bit CPU, 64Kbyte EEPROM, 256Kbyte ROM, 8Kbyte RAM*

## Features

- CPU
  - ARM SC100 32 bit pipelined RISC processor
  - ARM 32 bit / Thumb 16 bit instruction set
- Integrated On-Chip Memory
  - 256Kbyte ROM
  - 64Kbyte EEPROM
  - 8Kbyte SRAM
- EEPROM Operation
  - High reliable CMOS EEPROM technology
  - Page mode for erase or programming up to 1~64 bytes
  - Protected one time programmable block (64 bytes)
  - 300,000 write/erase endurance cycles
  - 10 years data retention (min.)
- Peripherals
  - UART supporting ISO standard protocols T=0 and T=1
  - Two 16 bit timers
  - True random number generator
  - CRC module
  - Interrupt controller for I/O interface and peripherals
- Security
  - Hardware memory management and protection unit
  - ROM code not visible due to implantation
  - High/Low voltage detector
  - High/Low frequency detector
  - Metal shield detector
  - Glitch sensor
  - Hardware encryption of memories

- Crypto Engine
  - DES/TDES in hardware
- Reset
  - Power-on reset and external reset (RST)
- Low Power Sleep Mode, Power Saving Idle Mode
- PAD Configuration according to ISO/IEC 7816 and Package
  - VCC, GND, CLK, RST and I/O
  - 8 pin COB (conforms to ISO standard 7816)
- Operating Characteristics
  - Operating voltage : 2.7V ~ 5.5V
  - Operating frequency : 1MHz ~ 5MHz
  - Operating temperature : -25 °C ~ 85 °C

## Block Diagram

