C166S-V2 CPU Architecture
Flash Module

- **128 KByte embedded Flash module**
  - Any use for instruction code or constant data
  - 64 bit read interface

- **Single voltage Flash (no external VPP required)**

- **Integrated Hardware Error Correction Code**
  - detection and correction of single bit errors during read access
  - detection of double bit errors

- **Programming time: typical 2 ms per page (128 byte)**

- **Fast erase per sector: typical 200 ms**

- **100 programming/erase cycles per sector or wordline**

- **Full automotive temperature range -40°C - 125°C**

- **Data retention 15 years**

XC166 architecture

C166S-V2 CPU Architecture
Flash Module

- **Sector architecture**
  - Four 8K (also organised as two physical 16K sectors), one 32K and one 64 Kbyte sector
  - Each sector separately erasable
  - Each physical sector separately lockable for protection against erase and programming
  - One additional configuration sector of 2 Kbyte
- **Optional read protection for whole Flash**
- **Comfortable password checking for temporary disable of write or read protection**

XC166 architecture

C166S-V2 CPU Architecture
Flash Module

- **Operational control per command sequences for protection against unintended operation**

    - comfortable User Interface

    - command sequences according to JEDEC standard

    - Write state machine for automatic programming and erase

    - Efficient programming operation with 64 word pages to be written in one step

- **Support of in-system and in-operation programming and erase**

- **Global and sector status information**

XC166 architecture