

27 System Timer (STM)

This chapter describes the System Timer (STM). The STM is designed for global system timing applications requiring both high precision and long period.

27.1 Feature List

The STM has the following features:

- Free-running 64-bit counter
- All 64 bits can be read synchronously
- Different 32-bit portions of the 64-bit counter can be read synchronously
- Flexible service request generation based on compare match with partial STM content
- Counting starts automatically after an Application Reset
- STM registers are reset by an Application Reset if bit ARSTDIS.STMxDIS is cleared. If bit ARSTDIS.STMxDIS is set, the STM registers are not reset by application reset, and are reset by system reset instead.

Special STM register semantics provide synchronous views of the entire 64-bit counter, or 32-bit subsets at different levels of resolution.