ST17H26 System Sleep Functions

Enter Low power Consumption function:

int cpu_sleep_wakeup (int deepsleep, int wakeup_src, u32 wakeup_tick);

Description: This function is used to enter the system Low-power state and set the wake up source.
Once this function is called, the system goes into a low-power state.
Parameter: Deep Sleep: 0->reps : enter suspend mode; 1-> reps : enter Deep Sleep mode.
WAKEUP_SRC:: Indicates the wake up source.
The values can be selected as follows:
PM_WAKEUP_CORE ,//indicates the Digital sector is partially awakened.(e.g. Gpio) for suspend mode
PM_WAKEUP_TIMER ,//Indicates a timer wake-up, for suspend mode and Deep Sleep
PM_WAKEUP_PAD ,//For Gpio Awakening in Deep Sleep mode.
Wakeup_tick:: Time setting for timer wake-up,.The time is a future time spot not a period.
e.g.:
A. cpu_sleep_wakeup (0, pm_wakeup_timer, next_wakeup_tick)
After call the above function, the system will enter a suspend mode state.
You can wake up with a timer, wake up at the next_wakeup_tick.
Note: The next_wakeup_tick must be a future time (a spot time after the current system time).
B. cpu_sleep_wakeup (0, pm_wakeup_core, next_wakeup_tick)
After call the above function, the system enter the Suspend mode state. This state can only be awakened by changing the external GPIO state.
Note: Even if this the next_wakeup_tick value is not 0 and is not awakened by a timer.
If you use IO wakeup,you need to setup other configurations with IO ports
C. cpu_sleep_wakeup (1, pm_wakeup_timer, next_wakeup_tick)
After call the above function, the system enters the DeepSleep mode state.
This state can be awakened by a timer, with the suspend timer wakeup mechanism.
D. cpu_sleep_wakeup (1, pm_wakeup_pad, next_wakeup_tick)
After call the above function, the system enters the DeepSleep mode state. This state can be only awakened by GPIO .
If you use IO wakeup, you need to setup other configurations with IO ports.
E. cpu_sleep_wakeup (1, pm_wakeup_pad |pm_wakeup_timer,next_wakeup_tick)
After call the above function, , the system enters a deepsleep mode state.which
Can be awakened either by GPIO or by a timer.