# ALi PMU Module

## Enums

List of Enums

| **Enum** | **Description** |
| --- | --- |
| [enum MCU\_SHOW\_PANNEL](file:///C:\Users\Icy.Liu\AppData\Local\Temp\notes00FD10\PMU%20API编程指南.docx#_MCU_SHOW_PANNEL) | Define the display status on panel when in standby mode |

#### MCU\_SHOW\_PANNEL

Definition

|  |
| --- |
| Define the display status on panel when in standby mode. |

Enum Value

|  |
| --- |
| enum MCU\_SHOW\_PANNEL  {  MCU\_SHOW\_NOTHING = 0,  MCU\_SHOW\_OFF,  MCU\_SHOW\_TIME  }; |

## Constants

List of Constants

| **Constant** | **Description** |
| --- | --- |
| [*ALI\_PMU\_MCU\_READ\_TIME*](file:///C:\Users\Icy.Liu\AppData\Local\Temp\notes00FD10\PMU%20API编程指南.docx#_ALI_PMU_MCU_READ_TIME) | *ioctl* command word, the wake-up time that CPU received from MCU |
| *[ALI\_PMU\_MCU\_ENTER\_STANDBY](file:///C:\\Users\\Icy.Liu\\AppData\\Local\\Temp\\notes00FD10\\PMU%20API编程指南.docx" \l "_ALI_PMU_MCU_ENTER_STANDBY)* | *ioctl* command word, make the system into standby mode |
| [*ALI\_PMU\_MCU\_SET\_TIME*](file:///C:\Users\Icy.Liu\AppData\Local\Temp\notes00FD10\PMU%20API编程指南.docx#_ALI_PMU_MCU_SET_TIME) | *ioctl* command word, set current time to MCU |
| [*ALI\_PMU\_MCU\_WAKEUP\_TIME*](file:///C:\Users\Icy.Liu\AppData\Local\Temp\notes00FD10\PMU%20API编程指南.docx#_ALI_PMU_MCU_WAKEUP_TIME) | *ioctl* command word, set wake-up time |
| [*ALI\_PMU\_GET\_SET\_LOGADDR*](file:///C:\Users\Icy.Liu\AppData\Local\Temp\notes00FD10\PMU%20API编程指南.docx#_ALI_PMU_GET_SET_LOGADDR) | *ioctl* command word, set CEC logic address |
| [*ALI\_PMU\_SHOW\_TIME\_EN*](#_ALI_PMU_SHOW_TIME_EN) | *ioctl* command word, set display status on panel when in standby mode |
| [*ALI\_PMU\_IR\_PROTOL\_NEC*](#_ALI_PMU_IR_PROTOL_NEC) | *ioctl* command word, set remote control key value of NEC protocol |

#### ALI\_PMU\_MCU\_READ\_TIME

Description

|  |
| --- |
| *ioctl* command word, the wake-up time that CPU received from MCU 。 |

Definition

|  |
| --- |
| #define ALI\_PMU\_MCU\_READ\_TIME 20 |

#### ALI\_PMU\_MCU\_ENTER\_STANDBY

Description

|  |
| --- |
| *ioctl* command word, make the system into standby mode. |

Definition

|  |
| --- |
| #define ALI\_PMU\_MCU\_ENTER\_STANDBY 18 |

#### ALI\_PMU\_MCU\_SET\_TIME

Description

|  |
| --- |
| *ioctl* command word, set current time to MCU. |

Definition

|  |
| --- |
| #define ALI\_PMU\_MCU\_SET\_TIME 19 |

#### ALI\_PMU\_MCU\_WAKEUP\_TIME

Description

|  |
| --- |
| *ioctl* command word, set wake-up time. |

Definition

|  |
| --- |
| #define ALI\_PMU\_MCU\_WAKEUP\_TIME 11 |

#### ALI\_PMU\_GET\_SET\_LOGADDR

Description

|  |
| --- |
| *ioctl* command word, set CEC logic address. |

Definition

|  |
| --- |
| #define ALI\_PMU\_GET\_SET\_LOGADDR 26 |

#### ALI\_PMU\_SHOW\_TIME\_EN

Description

|  |
| --- |
| *ioctl* command word, set display status on panel when in standby mode. |

Definition

|  |
| --- |
| #define ALI\_PMU\_SHOW\_TIME\_EN 23 |

#### ALI\_PMU\_IR\_PROTOL\_NEC

Description

|  |
| --- |
| *ioctl* command word, set remote control key value of NEC protocol. |

Definition

|  |
| --- |
| #define ALI\_PMU\_IR\_PROTOL\_NEC 1 |

## Structures

List of Structures

| **Structure** | **Description** |
| --- | --- |
| [*struct rtc\_time\_pmu*](#_rtc_time_pmu) | Define current time that PMU enters into standby |
| [*struct min\_alarm*](#_min_alarm) | Define description information of PMU wake-up time |
| [*struct min\_alarm\_num*](#_min_alarm_num) | Define description information of PMU wake-up time and specify which RTC to be used. |

#### rtc\_time\_pmu

Description

|  |
| --- |
| Define current time that PMU enters into standby. |

Definition

|  |
| --- |
| struct rtc\_time\_pmu  {  unsigned int year;  unsigned char month;  unsigned char day;  unsigned char hour;  unsigned char min;  unsigned char sec;  }; |

Parameters

|  |  |
| --- | --- |
| year | The current time entering into standby: year |
| month | The current time entering into standby: month |
| day | The current time entering into standby: date |
| hour | The current time entering into standby: hour |
| min | The current time entering into standby: minute |
| sec | The current time entering into standby: second |

#### min\_alarm

Description

|  |
| --- |
| Define description information of PMU wake-up time. |

Definition

|  |
| --- |
| struct min\_alarm  {  unsigned char en\_month;  unsigned char en\_date;  unsigned char en\_sun;  unsigned char en\_mon;  unsigned char en\_tue;  unsigned char en\_wed;  unsigned char en\_thr;  unsigned char en\_fri;  unsigned char en\_sat;  unsigned char month;  unsigned char date;  unsigned char hour;  unsigned char min;    }; |

Elements

|  |  |
| --- | --- |
| en\_month | Set wake-up time: month |
| en\_date | Set wake-up time: date |
| en\_sun | Set wake-up time: Sunday |
| en\_mon | Set wake-up time: Monday |
| en\_tue | Set wake-up time: Tuesday |
| en\_wed | Set wake-up time: Wednesday |
| en\_thr | Set wake-up time: Thursday |
| en\_fri | Set wake-up time: Friday |
| en\_sat | Set wake-up time: Saturday |
| month | Set wake-up time: Month |
| date | Set wake-up time: date |
| hour | Set wake-up time: hour |
| min | Set wake-up time: minute |

#### min\_alarm\_num

Description

|  |
| --- |
| Define description information of PMU wake-up time and specify which rtc to be used. |

Definition

|  |
| --- |
| struct min\_alarm\_num  {  struct min\_alarm min\_alm;  unsigned char num; //rtc alarm number,from 0~7  }; |

Elements

|  |  |
| --- | --- |
| min\_alm | Wake-up time structure |
| num | Rtc serial number |

## Functions

List of Functions

| **Function** | **Description** |
| --- | --- |
| [*ali\_pmu\_open ()*](#_ali_pmu_open_()) | Open PMU device |
| [*ali\_pmu\_close（）*](#_ali_pmu_close_()) | Close PMU device |
| [*ali\_pmu\_ioctl()*](#_ali_pmu_ioctl()) | Control PMU device |

#### ali\_pmu\_open ()

Description

|  |
| --- |
| Open PMU device. |

Definition

|  |
| --- |
| static int ali\_pmu\_open(struct inode \*inode, struct file \*file) |

Parameters

|  |  |
| --- | --- |
| Inode | PMU device node index |
| File | PMU device file handle |

Return Value

|  |  |
| --- | --- |
| 0 | Success |
| -1 | Failure |

#### ali\_pmu\_close ()

Description

|  |
| --- |
| Close PMU device. |

Definition

|  |
| --- |
| static int ali\_pmu\_close(struct inode \*inode, struct file \*file) |

Parameters

|  |  |
| --- | --- |
| Inode | PMU device node index |
| File | PMU device file handle |

Return Value

|  |  |
| --- | --- |
| 0 | Success |
| -1 | Failure |

#### ali\_pmu\_ioctl()

Description

|  |
| --- |
| Control PMU device. |

Definition

|  |
| --- |
| static int ali\_pmu\_ioctl( struct file \* file, unsigned int cmd, unsigned long param) |

Parameters

|  |  |
| --- | --- |
| File | PMU device file handle |
| cmd | ioctl command word |
| param | ioctl command word parameter |

Return Value

|  |  |
| --- | --- |
| 0 | Success |
| -1 | Failure |

#### ali\_pmu\_init ()

Description

|  |
| --- |
| ali\_pmu\_init. |

Definition

|  |
| --- |
| static int \_\_devinit ali\_pmu\_init(void) |

Parameters

None

Return Value

None

#### pmu\_mcu\_enter\_stby\_timer\_set\_value ()

Description

|  |
| --- |
| Set current system time to MCU. |

Definition

|  |
| --- |
| void pmu\_mcu\_enter\_stby\_timer\_set\_value(struct rtc\_time\_pmu \*base\_time) |

Parameters

|  |  |
| --- | --- |
| base\_time | Current system time |

Return Value

None

#### pmu\_mcu\_wakeup\_timer\_set\_min\_alarm ()

Description

|  |
| --- |
| Set mcu wakeup time. |

Definition

|  |
| --- |
| void pmu\_mcu\_wakeup\_timer\_set\_min\_alarm(struct min\_alarm \*alarm, unsigned char num) |

Parameters

|  |  |
| --- | --- |
| alarm | mcu wakeup time |
| num | no use at present |

Return Value

None

#### pmu\_mcu\_wakeup\_ir\_power\_key ()

Description

|  |
| --- |
| Set ir key for wakeup. |

Definition

|  |
| --- |
| static void pmu\_mcu\_wakeup\_ir\_power\_key(unsigned long \*pmu\_ir\_key) |

Parameters

|  |  |
| --- | --- |
| pmu\_ir\_key | IR key for mcu wakeup |

Return Value

None

#### pmu\_enter\_standby ()

Description

|  |
| --- |
| Enetr standby commond. |

Definition

|  |
| --- |
| void pmu\_enter\_standby(void) |

Parameters

None

Return Value

None