

## Sommario

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# DEVICE QMOS

## 1. Parameters list

### 1.1 osmode

|                          |                        |
|--------------------------|------------------------|
| <b>Short description</b> | Operative system state |
| <b>Dimension</b>         | Byte                   |
| <b>Default value</b>     | -                      |
| <b>Access type</b>       | Read                   |
| <b>Unit measure</b>      | -                      |
| <b>Valid range</b>       | 0÷5                    |
| <b>Parameter ID</b>      | -                      |
| <b>Write conditions</b>  | -                      |

**Description:**

Reflects the operative system state. Where:

- 0 = OSINI (Initialization)
  - 1 = OSRES (Reset)
  - 2 = OSRDY (Ready)
  - 3 = OSRUN (Run)
  - 4 = OSSTP (Stop)
  - 5 = OSERR (Error)
-

## 1.2 oserr

|                          |                             |
|--------------------------|-----------------------------|
| <b>Short description</b> | Operative system error code |
| <b>Dimension</b>         | Byte                        |
| <b>Default value</b>     | -                           |
| <b>Access type</b>       | Read                        |
| <b>Unit measure</b>      | -                           |
| <b>Valid range</b>       | 0÷10                        |
| <b>Parameter ID</b>      | -                           |
| <b>Write conditions</b>  | -                           |

**Description:**

Reflects the operative system error code. Where:

- 1 = OSBUSER (Bus Error)
  - 2 = OSCKSER (Checksum Error)
  - 3 = OSIDXOB (Index Out of Bound)
  - 4 = OSPRGOR (Program Over Range)
  - 5 = OSSTPOR (Step Over Range)
  - 6 = OSDVZER (Division By Zero)
  - 7 = OSSTXER (Syntax Error)
  - 8 = OSWDGER (WatchDog Error)
  - 9 = OSSTKER (Stack Error)
  - 10 = OSFLHER (Flash error)
-

### 1.3 osflags

|                          |                        |
|--------------------------|------------------------|
| <b>Short description</b> | Operative system flags |
| <b>Dimension</b>         | Byte                   |
| <b>Default value</b>     | -                      |
| <b>Access type</b>       | Read                   |
| <b>Unit measure</b>      | -                      |
| <b>Valid range</b>       | -                      |
| <b>Parameter ID</b>      | -                      |
| <b>Write conditions</b>  | -                      |

**Description:**

Reflects the operative system internal flags. Where:

bit 0 (LSB) TSKWDER (Task Watchdog Error)  
bit 1 BATTERY (wrong battery)  
bit 2 BKDIS (backup disabled)  
bit 3 TTASKLOST (timed task list)  
bit 4 BKNEW (new backup procedure)  
bit 5 BKPRESENT (backup present)  
bit 6 BKVALID (backup valid)  
bit 7 (MSB) empty

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| Name                              | D | R | A   | Description                                                                |
|-----------------------------------|---|---|-----|----------------------------------------------------------------------------|
| systemeh                          | L | - | R   | Shown the system timer LONG_H that has resolution 1 msec.                  |
| systemel                          | L | - | R   | Shown the system timer LONG_L that has resolution 1 msec.                  |
| taskmedtime                       | L | - | R   | Indicates the average time of your program's execution (tenths of a msec.) |
| taskmaxtime                       | L | - | R   | Indicates the maximum execution time of the program (tenths of a msec.)    |
| taskmintime                       | L | - | R   | Indicates the minimum execution time of the program (tenths of a msec.)    |
| sizeapp                           | L | - | R   | Indicates the size of the QCL application (bytes) stored in flash          |
| sizeret                           | L | - | R   | Indicates the size of the retentive memory used (bytes)                    |
| memfree                           | L | - | R   | Indicates the amount of volatile memory (bytes) still available            |
| sys001<br>...<br>sys016           | L | - | R-W | System variables                                                           |
| frwname01<br>...<br>frwname09     | B | - | R   | Bootloader: firmware identification string                                 |
| frwversion                        | B | - | R   | Bootloader: firmware version                                               |
| frwmajrel                         | B | - | R   | Bootloader: firmware major release                                         |
| frwminrel                         | B | - | R   | Bootloader: firmware minor release                                         |
| frwhwid                           | L | - | R   | Bootloader: firmware hardware ID                                           |
| frwcks                            | L | - | R   | Bootloader: firmware checksum                                              |
| frwuvalue01<br>...<br>frwuvalue10 | L | - | R   | Bootloader: user value                                                     |
| fwxversion                        | B | - | R   | Support external controller firmware version                               |
| fwxmajrel                         | B | - | R   | External controller firmware support major release                         |
| fwxminrel                         | B | - | R   | External controller firmware support minor release                         |
| temperature                       | B | - | R   | Internal temperature expressed in °C                                       |
| par01                             | L | - | R-W | Parameter for future use                                                   |
| par02                             | L | - | R-W | Parameter for future use                                                   |
| par03                             | L | - | R-W | Parameter for future use                                                   |
| par04                             | L | - | R-W | Parameter for future use                                                   |
| par05                             | L | - | R-W | Parameter for future use                                                   |

## 1.4 States table

| Name      | D | R | A | Descriptionm                           |
|-----------|---|---|---|----------------------------------------|
| st_backup | F | - | - | Indicates that there is a valid backup |
| st_01     | F | - | - | State for future use                   |
| st_02     | F | - | - | State for future use                   |
| st_03     | F | - | - | State for future use                   |
| st_04     | F | - | - | State for future use                   |
| st_05     | F | - | - | State for future use                   |

## 1.5 Commands table

| Name    | D | R | A | Description                                          |
|---------|---|---|---|------------------------------------------------------|
| RESTART | F | - | W | Restart of the system.                               |
| BACKUP  | F | - | W | Start the backup procedure (if present)              |
| RESTORE | F | - | W | Start the application restore procedure (if present) |
| CMD01   | F | - | W | Command for future use                               |
| CMD02   | F | - | W | Command for future use                               |
| CMD03   | F | - | W | Command for future use                               |
| CMD04   | F | - | W | Command for future use                               |
| CMD05   | F | - | W | Command for future use                               |

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