

| Access | Description          | Hardware behavior   |
|--------|----------------------|---|
| R      | Read only            | Field can only be read. A write will be ignored.  |
| W      | Write only           | Field can only be written. A read will return an undefined value.   |
| RW     | Read/write           | Field can be read and written multiple times.   |
| W1     | Write once           | Field can only be written once per reset. Any subsequent write will be ignored. A read will return an undefined value.            |
| RW1    | Read/write once      | Field can be read multiple times, but only written once per reset. Any subsequent write will be ignored.                          |
| W0C    | Write 0 to clear     | Field can be read multiple times. A zero clears (set to zero) the corresponding bit in the register. Bits set to one are ignored. |
| W1C    | Write 1 to clear     | Field can be read multiple times. A one clears (set to zero) the corresponding bit in the register. Bits set to zero are ignored. |
| W1S    | Write 1 to set       | Field can be read multiple times. A one sets the corresponding bit in the register. Bits set to zero are ignored.                 |
| RME    | Read Modify External | When read, a side effect occurs.  |

Table 5: Register field permission schemes

## 2.5 Registers

### Register overview

| Register | Offset | TZ | Description                                       |
|----------|--------|----|---|
| DUMMY    | 0x514  |    | Example of a register controlling a dummy feature |

#### 2.5.1 DUMMY

Address offset: 0x514

Example of a register controlling a dummy feature

| Bit number       |     |        | 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------|-----|--------|---|--------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| ID               |     |        | J I H G F E D D D C C C B A A   |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reset 0x00050002 |     |        | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0                     |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ID               | R/W | Field  | Value ID  | Value  | Description   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A                | RW  | FIELD0 |   |        | Example of a read-write field with several enumerated values    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | Disabled  | 0      | The example feature is disabled                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | NormalMode  | 1      | The example feature is enabled in normal mode                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | ExtendedMode  | 2      | The example feature is enabled along with extra functionality   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B                | RW  | FIELD1 |   |        | Example of a deprecated read-write field                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        |   |        | This field is deprecated.                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | Disabled  | 0      | The override feature is disabled                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | Enabled   | 1      | The override feature is enabled                                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C                | RW  | FIELD2 |   |        | Example of a read-write field with a valid range of values      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | ValidRange  | [2..7] | Example of allowed values for this field                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D                | RW  | FIELD3 |   |        | Example of a read-write field with no restriction on the values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E                | R   | FIELD4 |   |        | Example of a read-only field                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F                | W   | FIELD5 |   |        | Example of a write-only field                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G                | RW  | FIELD6 |   |        | Example of a write-one-to-clear field                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | W1C   |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H                | RW  | FIELD7 |   |        | Example of a write-zero-to-clear field                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                  |     |        | W0C   |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |