

## 16.6 Application information

To enable an external pin as a wake-up source in low-power modes, follow these steps:

1. If the flag is not 0, write 1 to [PF\[WUF\*n\*\]](#).
2. Configure the PDC*m*[WUPDC*n*] as either an interrupt or DMA request.
3. Configure the PE*m*[WUPE*n*] for rising edge, falling edge, or both edge detection.

When you have configured an external pin to be an active wake-up source in all power modes ([PMC\[WUPMC\*n\*\]](#) = 1), you must not change the corresponding wake-up pin enable (PE*m*[WUPE*n*]) and wake-up pin configuration (PDC*m*[WUPDC*n*]) settings for that pin. To modify the PE*m*[WUPE*n*] or PDC*m*[WUPDC*n*] settings, follow these steps:

1. Write 0 to [PMC\[WUPMC\*n\*\]](#) for that pin.
2. Update the corresponding PE*m*[WUPE*n*] or PDC*m*[WUPDC*n*] settings as needed.
3. Write 1 to [PMC\[WUPMC\*n\*\]](#) for that pin.

## 16.7 Memory map and register definition

This section includes the WUU module memory map and detailed descriptions of all registers.

### 16.7.1 WUU register descriptions

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#### NOTE

You can write to WUU registers only in Supervisor mode. A bus error results from write accesses in User mode.

VSYS warm reset resets all WUU registers.

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#### 16.7.1.1 WUU memory map

WUU0 base address: 4009\_2000h

| Offset | Register   | Width<br>(In bits) | Access | Reset value |
|--------|--|--------------------|--------|-------------|
| 0h     | <a href="#">Version ID (VERID)</a>                         | 32                 | R      | 0100_0001h  |
| 4h     | <a href="#">Parameter (PARAM)</a>                          | 32                 | R      | 2020_2002h  |
| 8h     | <a href="#">Pin Enable 1 (PE1)</a>                         | 32                 | RW     | 0000_0000h  |
| Ch     | <a href="#">Pin Enable 2 (PE2)</a>                         | 32                 | RW     | 0000_0000h  |
| 18h    | <a href="#">Module Interrupt Enable (ME)</a>               | 32                 | RW     | 0000_0000h  |
| 1Ch    | <a href="#">Module DMA/Trigger Enable (DE)</a>             | 32                 | RW     | 0000_0000h  |
| 20h    | <a href="#">Pin Flag (PF)</a>                              | 32                 | RW     | 0000_0000h  |
| 30h    | <a href="#">Pin Filter (FILT)</a>                          | 32                 | RW     | 0000_0000h  |
| 38h    | <a href="#">Pin DMA/Trigger Configuration 1 (PDC1)</a>     | 32                 | RW     | 0000_0000h  |
| 3Ch    | <a href="#">Pin DMA/Trigger Configuration 2 (PDC2)</a>     | 32                 | RW     | 0000_0000h  |
| 48h    | <a href="#">Pin Filter DMA/Trigger Configuration (FDC)</a> | 32                 | RW     | 0000_0000h  |
| 50h    | <a href="#">Pin Mode Configuration (PMC)</a>               | 32                 | RW     | 0000_0000h  |
| 58h    | <a href="#">Pin Filter Mode Configuration (FMC)</a>        | 32                 | RW     | 0000_0000h  |

### 16.7.1.2 Version ID (VERID)

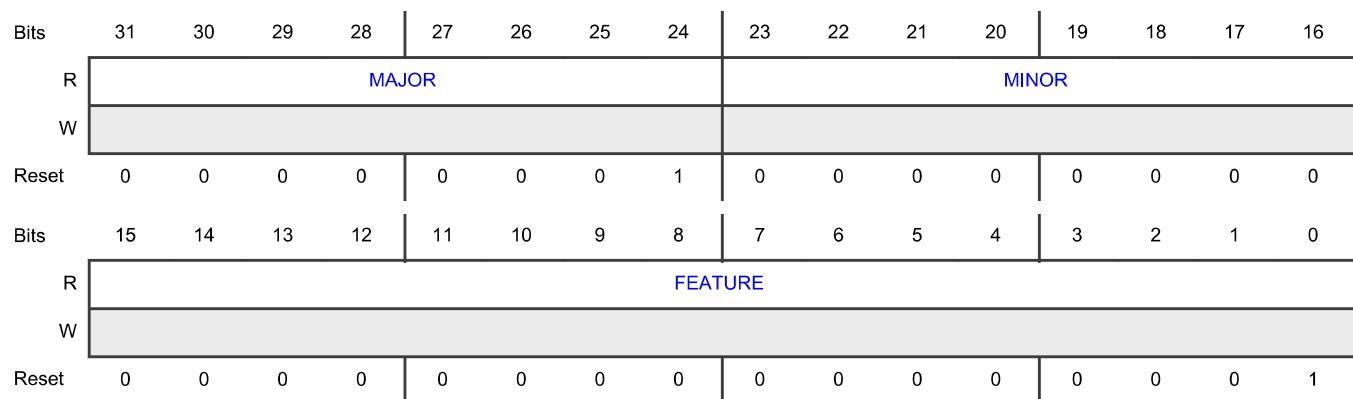
#### Offset

| Register | Offset |
|----------|--------|
| VERID    | 0h     |

#### Function

Contains version numbers for the module design and feature set.

#### Diagram



#### Fields

| Field           | Function  |
|-----------------|---|
| 31-24<br>MAJOR  | Major Version Number<br>Specifies the major version number for the module specification.  |
| 23-16<br>MINOR  | Minor Version Number<br>Specifies the minor version number for the module specification.  |
| 15-0<br>FEATURE | Feature Specification Number<br>Specifies the feature set number.<br><br>0000_0000_0000_0000b - Standard features implemented<br><br>0000_0000_0000_0001b - Support for DMA/Trigger generation from wake-up pins and filters enabled. Support for external pin/filter detection during all power modes enabled.<br><br>All other values are reserved. |

### 16.7.1.3 Parameter (PARAM)

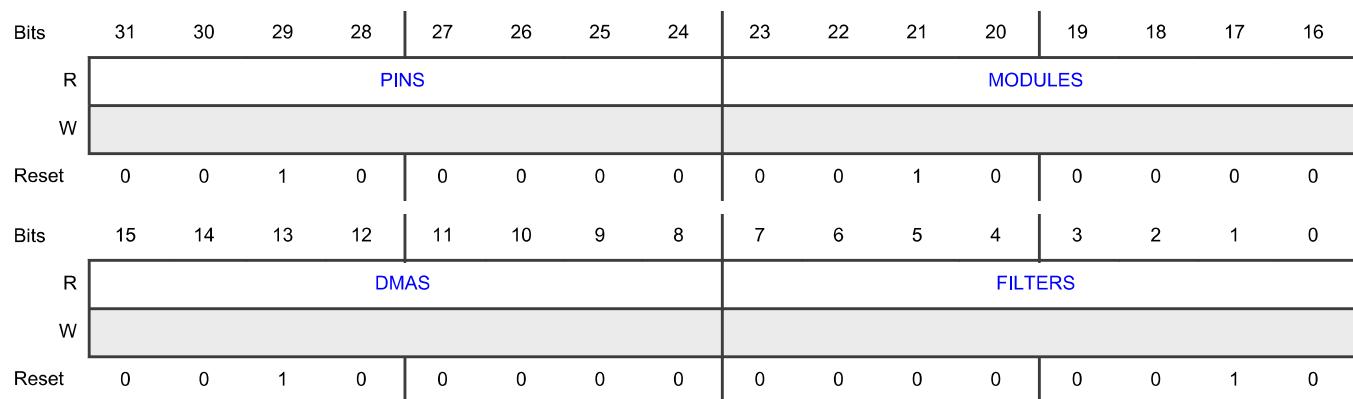
#### Offset

| Register | Offset |
|----------|--------|
| PARAM    | 4h     |

#### Function

Contains parameter values implemented in the module.

#### Diagram



#### Fields

| Field            | Function   |
|------------------|--|
| 31-24<br>PINS    | Pin Number<br>Indicates the number of pin wake-up sources supported. |
| 23-16<br>MODULES | Module Number<br>Indicates the number of module wake-up sources.     |
| 15-8<br>DMAS     | DMA Number<br>Indicates the number of DMA wake-up sources.           |
| 7-0<br>FILTERS   | Filter Number<br>Indicates the number of pin filters.                |

### 16.7.1.4 Pin Enable 1 (PE1)

#### Offset

| Register | Offset |
|----------|--------|
| PE1      | 8h     |

**Function**

Enables and selects the edge detect type for the available external wake-up input pins in the range from WUU\_P0 to WUU\_P15.

**NOTE**

- Do not modify the value of PE1[WUPE $n$ ] when its corresponding PMC[WUPMC $n$ ] = 1.
- VSYS warm reset resets this register.

**Diagram**

| Bits  | 31    | 30 | 29    | 28 | 27 | 26 | 25 | 24 | 23     | 22     | 21     | 20 | 19    | 18 | 17    | 16 |
|-------|-------|----|-------|----|----|----|----|----|--------|--------|--------|----|-------|----|-------|----|
| R     | 0     | 0  |       |    | 0  |    |    |    | WUPE12 | WUPE11 | WUPE10 |    | WUPE9 |    | WUPE8 |    |
| Reset | 0     | 0  | 0     | 0  | 0  | 0  | 0  | 0  | 0      | 0      | 0      | 0  | 0     | 0  | 0     | 0  |
| Bits  | 15    | 14 | 13    | 12 | 11 | 10 | 9  | 8  | 7      | 6      | 5      | 4  | 3     | 2  | 1     | 0  |
| R     | WUPE7 |    | WUPE6 |    | 0  | 0  |    |    | 0      |        |        |    | 0     |    | 0     |    |
| W     |       |    |       |    |    |    |    |    |        |        |        |    |       |    |       |    |
| Reset | 0     | 0  | 0     | 0  | 0  | 0  | 0  | 0  | 0      | 0      | 0      | 0  | 0     | 0  | 0     | 0  |

**Fields**

| Field               | Function  |
|---------------------|---|
| 31-30<br>Reserved15 | <p>Reserved</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> <li>00b - Not supported</li> <li>01b - Not supported</li> <li>10b - Not supported</li> <li>11b - Not supported</li> </ul> |
| 29-28<br>Reserved14 | <p>Reserved</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> <li>00b - Not supported</li> <li>01b - Not supported</li> </ul>   |

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| Field               | Function   |
|---------------------|--|
|                     | 10b - Not supported<br>11b - Not supported   |
| 27-26<br>Reserved13 | Reserved <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported  |
| 25-24<br>WUPE12     | Wake-up Pin Enable for WUU_Pn<br>Enables the external input pin for wake-up. This field configures the edge detection as follows: <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge) |
| 23-22<br>WUPE11     | Wake-up Pin Enable for WUU_Pn<br>Enables the external input pin for wake-up. This field configures the edge detection as follows: <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge) |

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| Field           | Function  |
|-----------------|---|
| 21-20<br>WUPE10 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up. This field configures the edge detection as follows:</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 19-18<br>WUPE9  | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up. This field configures the edge detection as follows:</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 17-16<br>WUPE8  | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up. This field configures the edge detection as follows:</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 15-14           | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up. This field configures the edge detection as follows:</p>  |

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| Field              | Function   |
|--------------------|--|
| WUPE7              | <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge)   |
| 13-12<br>WUPE6     | Wake-up Pin Enable for WUU_Pn<br>Enables the external input pin for wake-up. This field configures the edge detection as follows: <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge) |
| 11-10<br>Reserved5 | Reserved <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported  |
| 9-8<br>Reserved4   | Reserved <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> </ul>  |

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| Field            | Function   |
|------------------|--|
|                  | <ul style="list-style-type: none"> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.           <ul style="list-style-type: none"> <li>00b - Not supported</li> <li>01b - Not supported</li> <li>10b - Not supported</li> <li>11b - Not supported</li> </ul> </li> </ul>  |
| 7-6<br>Reserved3 | <p>Reserved</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.           <ul style="list-style-type: none"> <li>00b - Not supported</li> <li>01b - Not supported</li> <li>10b - Not supported</li> <li>11b - Not supported</li> </ul> </li> </ul>  |
| 5-4<br>WUPE2     | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up. This field configures the edge detection as follows:</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.           <ul style="list-style-type: none"> <li>00b - Disable</li> <li>01b - Enable (detect on rising edge or high level)</li> <li>10b - Enable (detect on falling edge or low level)</li> <li>11b - Enable (detect on any edge)</li> </ul> </li> </ul> |
| 3-2<br>Reserved1 | <p>Reserved</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.           <ul style="list-style-type: none"> <li>00b - Not supported</li> <li>01b - Not supported</li> </ul> </li> </ul>  |

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| Field            | Function   |
|------------------|--|
|                  | 10b - Not supported<br>11b - Not supported   |
| 1-0<br>Reserved0 | Reserved<br><ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported |

#### 16.7.1.5 Pin Enable 2 (PE2)

##### Offset

| Register | Offset |
|----------|--------|
| PE2      | Ch     |

##### Function

Contains the field to enable and select the edge detect type for the available external wake-up input pins in the range from WUU\_P16 to WUU\_P31.

##### NOTE

- Do not modify the value of [PE2\[WUPE \$n\$ \]](#) when its corresponding [PMC\[WUPMC \$n\$ \]](#) = 1.
- VSYS warm reset resets this register.

##### Diagram

| Bits  | 31       | 30 | 29     | 28 | 27     | 26 | 25     | 24 | 23     | 22 | 21     | 20 | 19     | 18 | 17 | 16 |
|-------|----------|----|--------|----|--------|----|--------|----|--------|----|--------|----|--------|----|----|----|
| R     | Reserved |    |        |    | WUPE28 |    | WUPE27 |    | WUPE26 |    | WUPE25 |    | WUPE24 |    |    |    |
| W     |          |    |        |    |        |    |        |    |        |    |        |    |        |    |    |    |
| Reset | 0        | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0  | 0  |
| Bits  | 15       | 14 | 13     | 12 | 11     | 10 | 9      | 8  | 7      | 6  | 5      | 4  | 3      | 2  | 1  | 0  |
| R     | WUPE23   |    | WUPE22 |    | 0      |    | WUPE20 |    | WUPE19 |    | WUPE18 |    | 0      |    | 0  |    |
| W     |          |    |        |    |        |    |        |    |        |    |        |    |        |    |    |    |
| Reset | 0        | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0      | 0  | 0  | 0  |

## Fields

| Field           | Function   |
|-----------------|--|
| 31-26<br>—      | Reserved   |
| 25-24<br>WUPE28 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 23-22<br>WUPE27 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 21-20<br>WUPE26 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)</p>                                       |

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| Field           | Function  |
|-----------------|---|
|                 | 11b - Enable (detect on any edge)   |
| 19-18<br>WUPE25 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable</p> <p>01b - Enable (detect on rising edge or high level)</p> <p>10b - Enable (detect on falling edge or low level)</p> <p>11b - Enable (detect on any edge)</p> |
| 17-16<br>WUPE24 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable</p> <p>01b - Enable (detect on rising edge or high level)</p> <p>10b - Enable (detect on falling edge or low level)</p> <p>11b - Enable (detect on any edge)</p> |
| 15-14<br>WUPE23 | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable</p> <p>01b - Enable (detect on rising edge or high level)</p> <p>10b - Enable (detect on falling edge or low level)</p> <p>11b - Enable (detect on any edge)</p> |

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| Field               | Function   |
|---------------------|--|
| 13-12<br>WUPE22     | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 11-10<br>Reserved21 | <p>Reserved</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Not supported<br/>01b - Not supported<br/>10b - Not supported<br/>11b - Not supported</p>   |
| 9-8<br>WUPE20       | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p> <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> <p>00b - Disable<br/>01b - Enable (detect on rising edge or high level)<br/>10b - Enable (detect on falling edge or low level)<br/>11b - Enable (detect on any edge)</p> |
| 7-6<br>WUPE19       | <p>Wake-up Pin Enable for WUU_Pn</p> <p>Enables the external input pin for wake-up and configures the edge detection.</p>  |

*Table continues on the next page...*

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| Field             | Function  |
|-------------------|---|
|                   | <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge)  |
| 5-4<br>WUPE18     | Wake-up Pin Enable for WUU_Pn<br>Enables the external input pin for wake-up and configures the edge detection. <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Disable<br>01b - Enable (detect on rising edge or high level)<br>10b - Enable (detect on falling edge or low level)<br>11b - Enable (detect on any edge) |
| 3-2<br>Reserved17 | Reserved <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported   |
| 1-0<br>Reserved16 | Reserved <ul style="list-style-type: none"> <li>For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level.</li> </ul>   |

*Table continues on the next page...*

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| Field | Function   |
|-------|--|
|       | <ul style="list-style-type: none"> <li>For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level.</li> <li>For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge.</li> </ul> 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported |

### 16.7.1.6 Module Interrupt Enable (ME)

#### Offset

| Register | Offset |
|----------|--------|
| ME       | 18h    |

#### Function

Contains the bits to enable an on-chip module interrupt as a wake-up source.

**NOTE**

VSYS warm reset resets this register.

#### Diagram

| Bits  | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24   | 23 | 22   | 21 | 20 | 19 | 18   | 17 | 16   |
|-------|----|----|----|----|----|----|----|------|----|------|----|----|----|------|----|------|
| R     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0    | 0  | 0    |
| W     |    |    |    |    |    |    |    |      |    |      |    |    |    |      |    |      |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0    | 0  | 0    |
| Bits  | 15 | 14 | 13 | 12 | 11 | 10 | 9  | 8    | 7  | 6    | 5  | 4  | 3  | 2    | 1  | 0    |
| R     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | WUME | 0  | WUME | 0  | 0  | 0  | WUME | 0  | WUME |
| W     |    |    |    |    |    |    |    | 8    |    | 6    |    |    |    | 2    |    | 0    |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0    | 0  | 0    |

#### Fields

| Field | Function |
|-------|----------|
| 31    | Reserved |
| —     |          |

*Table continues on the next page...*

*Table continued from the previous page...*

| Field | Function |
|-------|----------|
| 30    | Reserved |
| —     |          |
| 29    | Reserved |
| —     |          |
| 28    | Reserved |
| —     |          |
| 27    | Reserved |
| —     |          |
| 26    | Reserved |
| —     |          |
| 25    | Reserved |
| —     |          |
| 24    | Reserved |
| —     |          |
| 23    | Reserved |
| —     |          |
| 22    | Reserved |
| —     |          |
| 21    | Reserved |
| —     |          |
| 20    | Reserved |
| —     |          |
| 19    | Reserved |
| —     |          |
| 18    | Reserved |
| —     |          |
| 17    | Reserved |
| —     |          |
| 16    | Reserved |

*Table continues on the next page...*

*Table continued from the previous page...*

| Field | Function  |
|-------|---|
| —     |   |
| 15    | Reserved  |
| —     |   |
| 14    | Reserved  |
| —     |   |
| 13    | Reserved  |
| —     |   |
| 12    | Reserved  |
| —     |   |
| 11    | Reserved  |
| —     |   |
| 10    | Reserved  |
| —     |   |
| 9     | Reserved  |
| —     |   |
| 8     | Module Interrupt Wake-up Enable for Module 8  |
| WUME8 | Enables an on-chip module interrupt as a wake-up source input.<br>0b - Disable<br>1b - Enable |
| 7     | Reserved  |
| —     |   |
| 6     | Module Interrupt Wake-up Enable for Module 6  |
| WUME6 | Enables an on-chip module interrupt as a wake-up source input.<br>0b - Disable<br>1b - Enable |
| 5     | Reserved  |
| —     |   |
| 4     | Reserved  |
| —     |   |

*Table continues on the next page...*

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| Field      | Function  |
|------------|---|
| 3<br>—     | Reserved  |
| 2<br>WUME2 | Module Interrupt Wake-up Enable for Module 2<br><br>Enables an on-chip module interrupt as a wake-up source input.<br><br>0b - Disable<br>1b - Enable |
| 1<br>—     | Reserved  |
| 0<br>WUME0 | Module Interrupt Wake-up Enable for Module 0<br><br>Enables an on-chip module interrupt as a wake-up source input.<br><br>0b - Disable<br>1b - Enable |

#### 16.7.1.7 Module DMA/Trigger Enable (DE)

##### Offset

| Register | Offset |
|----------|--------|
| DE       | 1Ch    |

##### Function

Contains the bits to enable an on-chip module DMA/trigger request as a wake-up source.

##### NOTE

VSYS warm reset resets this register.

##### Diagram

| Bits  | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24   | 23 | 22   | 21 | 20   | 19 | 18 | 17 | 16 |
|-------|----|----|----|----|----|----|----|------|----|------|----|------|----|----|----|----|
| R     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0  |
| W     |    |    |    |    |    |    |    |      |    |      |    |      |    |    |    |    |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0  |
| Bits  | 15 | 14 | 13 | 12 | 11 | 10 | 9  | 8    | 7  | 6    | 5  | 4    | 3  | 2  | 1  | 0  |
| R     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | WUDE | 0  | WUDE | 0  | WUDE | 0  | 0  | 0  | 0  |
| W     |    |    |    |    |    |    |    | 8    |    | 6    |    | 4    |    |    |    |    |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0    | 0  | 0    | 0  | 0    | 0  | 0  | 0  | 0  |

**Fields**

| Field | Function |
|-------|----------|
| 31    | Reserved |
| —     |          |
| 30    | Reserved |
| —     |          |
| 29    | Reserved |
| —     |          |
| 28    | Reserved |
| —     |          |
| 27    | Reserved |
| —     |          |
| 26    | Reserved |
| —     |          |
| 25    | Reserved |
| —     |          |
| 24    | Reserved |
| —     |          |
| 23    | Reserved |
| —     |          |
| 22    | Reserved |
| —     |          |
| 21    | Reserved |
| —     |          |
| 20    | Reserved |
| —     |          |
| 19    | Reserved |
| —     |          |
| 18    | Reserved |
| —     |          |
| 17    | Reserved |

*Table continues on the next page...*

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| Field | Function  |
|-------|---|
| —     |   |
| 16    | Reserved  |
| —     |   |
| 15    | Reserved  |
| —     |   |
| 14    | Reserved  |
| —     |   |
| 13    | Reserved  |
| —     |   |
| 12    | Reserved  |
| —     |   |
| 11    | Reserved  |
| —     |   |
| 10    | Reserved  |
| —     |   |
| 9     | Reserved  |
| —     |   |
| 8     | DMA/Trigger Wake-up Enable for Module 8   |
| WUDE8 | Enables an on-chip module DMA/trigger request as a wake-up source.<br>0b - Disable<br>1b - Enable |
| 7     | Reserved  |
| —     |   |
| 6     | DMA/Trigger Wake-up Enable for Module 6   |
| WUDE6 | Enables an on-chip module DMA/trigger request as a wake-up source.<br>0b - Disable<br>1b - Enable |
| 5     | Reserved  |
| —     |   |

*Table continues on the next page...*

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| Field      | Function   |
|------------|--|
| 4<br>WUDE4 | DMA/Trigger Wake-up Enable for Module 4<br><br>Enables an on-chip module DMA/trigger request as a wake-up source.<br><br>0b - Disable<br>1b - Enable |
| 3<br>—     | Reserved   |
| 2<br>—     | Reserved   |
| 1<br>—     | Reserved   |
| 0<br>—     | Reserved   |

#### 16.7.1.8 Pin Flag (PF)

##### Offset

| Register | Offset |
|----------|--------|
| PF       | 20h    |

##### Function

Contains the wake-up flags indicating which wake-up source caused the chip to exit Power Down (if the corresponding [PMC\[WUPMC \$n\$ \]](#) = 1) or Deep Power Down mode. For Power Down mode, this is the source causing the CPU interrupt flow. For Deep Power Down mode, this is the source causing the chip reset flow.

To clear a flag, write a 1 to the corresponding [PF\[WUF \$n\$ \]](#). If set, the wake-up flag (WUF $n$ ) remains set even if the associated pin wake-up is disabled in its [PE \$m\$ \[WUPE \$n\$ \]](#) field.

##### NOTE

VSYS warm reset resets this register.

**Diagram**

| Bits  | 31       | 30 | 29 | 28        | 27        | 26        | 25        | 24        | 23        | 22        | 21 | 20        | 19        | 18        | 17 | 16 |
|-------|----------|----|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----|-----------|-----------|-----------|----|----|
| R     | Reserved |    |    | WUF2<br>8 | WUF2<br>7 | WUF2<br>6 | WUF2<br>5 | WUF2<br>4 | WUF2<br>3 | WUF2<br>2 | 0  | WUF2<br>0 | WUF1<br>9 | WUF1<br>8 | 0  | 0  |
|       |          |    |    | W1C       |    | W1C       | W1C       | W1C       |    |    |
| Reset | 0        | 0  | 0  | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0  | 0         | 0         | 0         | 0  | 0  |
| Bits  | 15       | 14 | 13 | 12        | 11        | 10        | 9         | 8         | 7         | 6         | 5  | 4         | 3         | 2         | 1  | 0  |
| R     | 0        | 0  | 0  | WUF1<br>2 | WUF1<br>1 | WUF1<br>0 | WUF9      | WUF8      | WUF7      | WUF6      | 0  | 0         | 0         | WUF2      | 0  | 0  |
|       |          |    |    | W1C       |    |           | W1C       |           |    |    |
| Reset | 0        | 0  | 0  | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0  | 0         | 0         | 0         | 0  | 0  |

**Fields**

| Field       | Function   |
|-------------|--|
| 31-29<br>—  | Reserved   |
| 28<br>WUF28 | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 27<br>WUF27 | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 26<br>WUF26 | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 25<br>WUF25 | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 24<br>WUF24 | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.                        |

*Table continues on the next page...*

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| Field            | Function   |
|------------------|--|
|                  | 0b - No<br>1b - Yes  |
| 23<br>WUF23      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 22<br>WUF22      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 21<br>Reserved21 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 20<br>WUF20      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 19<br>WUF19      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 18<br>WUF18      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 17<br>Reserved17 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 16<br>Reserved16 | Reserved<br>0b - Not supported<br>1b - Not supported   |

*Table continues on the next page...*

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| Field            | Function   |
|------------------|--|
| 15<br>Reserved15 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 14<br>Reserved14 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 13<br>Reserved13 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 12<br>WUF12      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 11<br>WUF11      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 10<br>WUF10      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 9<br>WUF9        | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 8<br>WUF8        | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 7<br>WUF7        | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.                        |

*Table continues on the next page...*

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| Field          | Function   |
|----------------|--|
|                | 0b - No<br>1b - Yes  |
| 6<br>WUF6      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 5<br>Reserved5 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 4<br>Reserved4 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 3<br>Reserved3 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 2<br>WUF2      | Wake-up Flag for WUU_Pn<br>Indicates that an enabled external wake-up pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes |
| 1<br>Reserved1 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 0<br>Reserved0 | Reserved<br>0b - Not supported<br>1b - Not supported   |

#### 16.7.1.9 Pin Filter (FILT)

##### Offset

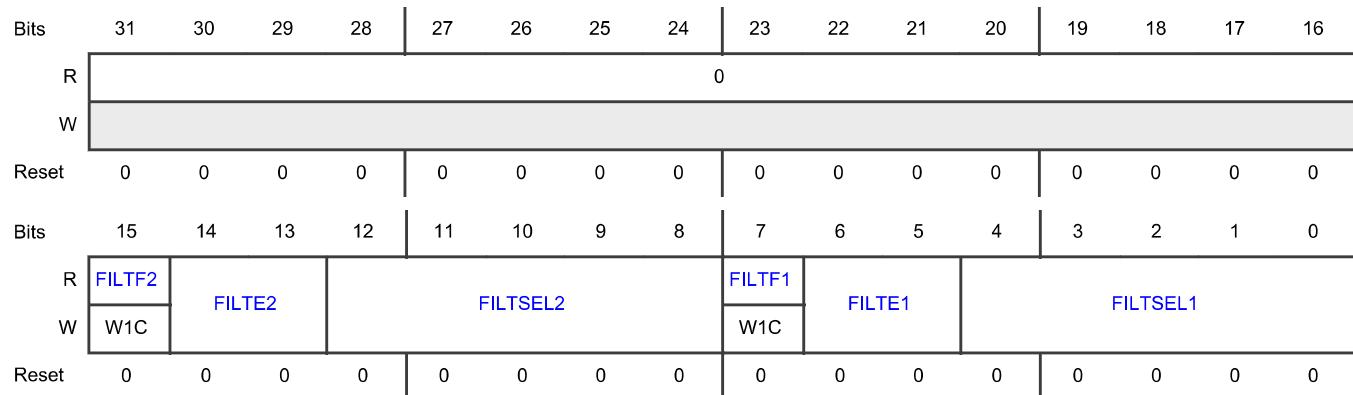
| Register | Offset |
|----------|--------|
| FILT     | 30h    |

**Function**

Contains control and status fields to enable and configure the digital filter features for an external wake-up pin.

**NOTE**

VSYS warm reset resets this register.

**Diagram****Fields**

| Field           | Function  |
|-----------------|---|
| 31-16<br>—      | Reserved  |
| 15<br>FILTF2    | Filter 2 Flag<br>Indicates that the filtered external pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes  |
| 14-13<br>FILTE2 | Filter 2 Enable<br>Enables the filter for wake-up. This field configures the edge detection as follows: <ul style="list-style-type: none"><li>• For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level</li><li>• For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level</li><li>• For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge<ul style="list-style-type: none"><li>00b - Disable</li><li>01b - Enable (Detect on rising edge or high level)</li><li>10b - Enable (Detect on falling edge or low level)</li><li>11b - Enable (Detect on any edge)</li></ul></li></ul> |
| 12-8            | Filter 2 Pin Select   |

*Table continues on the next page...*

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| Field           | Function  |
|-----------------|---|
| FILTSEL2        | Selects and filters the external pin WUU_P <sub>n</sub> , where <i>n</i> equals the value programmed into FILTSEL2.   |
| 7<br>FILTF1     | Filter 1 Flag<br>Indicates that the filtered external pin was a source of exiting a low-leakage power mode.<br>0b - No<br>1b - Yes  |
| 6-5<br>FILTE1   | Filter 1 Enable<br>Enables the filter for wake-up. This field configures the edge detection as follows: <ul style="list-style-type: none"><li>• For field value = 01b, when configured as an interrupt/DMA request: Detect on rising edge. When configured as a trigger request: Detect on high level</li><li>• For field value = 10b, when configured as an interrupt/DMA request: Detect on falling edge. When configured as a trigger request: Detect on low level</li><li>• For field value = 11b, when configured as an interrupt/DMA request: Detect on any edge<ul style="list-style-type: none"><li>00b - Disable</li><li>01b - Enable (Detect on rising edge or high level)</li><li>10b - Enable (Detect on falling edge or low level)</li><li>11b - Enable (Detect on any edge)</li></ul></li></ul> |
| 4-0<br>FILTSEL1 | Filter 1 Pin Select<br>Selects and filters the external pin WUU_P <sub>n</sub> , where <i>n</i> equals the value programmed into FILTSEL1.  |

#### 16.7.1.10 Pin DMA/Trigger Configuration 1 (PDC1)

##### Offset

| Register | Offset |
|----------|--------|
| PDC1     | 38h    |

##### Function

Configures the available external wake-up input pins in the range from WUU\_P0 to WUU\_P15 to generate an interrupt, DMA, or a trigger request when detected.

- When configured as an interrupt, the interrupt is asserted when the edge programmed in [Pin Enable 1 \(PE1\)](#) is detected and remains asserted until the corresponding flag is cleared in [Pin Flag \(PF\)](#).
- When configured as a DMA request, the request is asserted when the edge programmed in [Pin Enable 1 \(PE1\)](#) is detected and remains asserted until either the corresponding flag is cleared in [Pin Flag \(PF\)](#) or until the requested DMA transfer is complete.
- When configured as a trigger request, the trigger is asserted when the level programmed in [Pin Enable 1 \(PE1\)](#) is detected and remains asserted when the input pin is asserted. The corresponding flag in [Pin Flag \(PF\)](#) will not be set.

**NOTE**

- Do not modify the value of PDC $m$ [WUPDC $n$ ] field when its corresponding PMC[WUPMC $n$ ] = 1.
- VSYS warm reset resets this register.

**Diagram**

| Bits  | 31     | 30 | 29     | 28 | 27 | 26 | 25      | 24      | 23      | 22     | 21     | 20 | 19 | 18 | 17 | 16 |
|-------|--------|----|--------|----|----|----|---------|---------|---------|--------|--------|----|----|----|----|----|
| R     | 0      | 0  | 0      | 0  | 0  | 0  | WUPDC12 | WUPDC11 | WUPDC10 | WUPDC9 | WUPDC8 |    |    |    |    |    |
| W     |        |    |        |    |    |    |         |         |         |        |        |    |    |    |    |    |
| Reset | 0      | 0  | 0      | 0  | 0  | 0  | 0       | 0       | 0       | 0      | 0      | 0  | 0  | 0  | 0  | 0  |
| Bits  | 15     | 14 | 13     | 12 | 11 | 10 | 9       | 8       | 7       | 6      | 5      | 4  | 3  | 2  | 1  | 0  |
| R     | WUPDC7 |    | WUPDC6 |    | 0  | 0  | 0       | 0       | 0       | 0      | 0      | 0  | 0  | 0  | 0  | 0  |
| W     |        |    |        |    |    |    |         |         |         |        |        |    |    |    |    |    |
| Reset | 0      | 0  | 0      | 0  | 0  | 0  | 0       | 0       | 0       | 0      | 0      | 0  | 0  | 0  | 0  | 0  |

**Fields**

| Field      | Function   |
|------------|--|
| 31-30      | Reserved   |
| Reserved15 | 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported       |
| 29-28      | Reserved   |
| Reserved14 | 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported       |
| 27-26      | Reserved   |
| Reserved13 | 00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported       |
| 25-24      | Wake-up Pin Configuration for WUU_Pn   |
| WUPDC12    | Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt |

*Table continues on the next page...*

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| Field            | Function   |
|------------------|--|
|                  | 01b - DMA request<br>10b - Trigger event<br>11b - Reserved   |
| 23-22<br>WUPDC11 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 21-20<br>WUPDC10 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 19-18<br>WUPDC9  | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 17-16<br>WUPDC8  | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 15-14<br>WUPDC7  | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request  |

*Table continues on the next page...*

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| Field              | Function   |
|--------------------|--|
|                    | 10b - Trigger event<br>11b - Reserved  |
| 13-12<br>WUPDC6    | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 11-10<br>Reserved5 | Reserved<br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported   |
| 9-8<br>Reserved4   | Reserved<br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported   |
| 7-6<br>Reserved3   | Reserved<br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported   |
| 5-4<br>WUPDC2      | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 3-2<br>Reserved1   | Reserved<br>00b - Not supported  |

*Table continues on the next page...*

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| Field            | Function   |
|------------------|--|
|                  | 01b - Not supported<br>10b - Not supported<br>11b - Not supported                                    |
| 1-0<br>Reserved0 | Reserved<br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported |

#### 16.7.1.11 Pin DMA/Trigger Configuration 2 (PDC2)

##### Offset

| Register | Offset |
|----------|--------|
| PDC2     | 3Ch    |

##### Function

Configures the available external wake-up input pins in the range from WUU\_P16 to WUU\_P31 to generate an interrupt, DMA, or a trigger request when detected.

- When configured as an interrupt, the interrupt is asserted when the edge programmed in [Pin Enable 2 \(PE2\)](#) is detected and remains asserted until the corresponding flag is cleared in [Pin Flag \(PF\)](#).
- When configured as a DMA request, the request is asserted when the edge programmed in [Pin Enable 2 \(PE2\)](#) is detected and remains asserted until either the corresponding flag is cleared in [Pin Flag \(PF\)](#) or until the requested DMA transfer is complete.
- When configured as a trigger request, the trigger is asserted when the level programmed in [Pin Enable 2 \(PE2\)](#) is detected and remains asserted when the input pin is asserted. The corresponding flag in [Pin Flag \(PF\)](#) will not be set.

##### NOTE

- Do not modify the value of PDC $m$ [WUPDC $n$ ] field when its corresponding [PMC\[WUPMC \$n\$ \]](#) = 1.
- VSYS warm reset resets this register.

**Diagram**

| Bits  | 31      | 30      | 29 | 28 | 27      | 26 | 25      | 24 | 23      | 22 | 21      | 20 | 19      | 18 | 17      | 16 |
|-------|---------|---------|----|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|
| R     | WUPDC31 | 0       |    |    | WUPDC29 |    | WUPDC28 |    | WUPDC27 |    | WUPDC26 |    | WUPDC25 |    | WUPDC24 |    |
| Reset | 0       | 0       | 0  | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  |
| Bits  | 15      | 14      | 13 | 12 | 11      | 10 | 9       | 8  | 7       | 6  | 5       | 4  | 3       | 2  | 1       | 0  |
| R     | WUPDC23 | WUPDC22 | 0  |    | WUPDC20 |    | WUPDC19 |    | WUPDC18 |    | 0       |    | 0       |    | 0       |    |
| Reset | 0       | 0       | 0  | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  | 0       | 0  |

**Fields**

| Field               | Function   |
|---------------------|--|
| 31-30<br>WUPDC31    | Wake-up Pin Configuration for WUU_Pn<br><br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br><br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 29-28<br>Reserved30 | Reserved<br><br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported   |
| 27-26<br>WUPDC29    | Wake-up Pin Configuration for WUU_Pn<br><br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br><br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 25-24<br>WUPDC28    | Wake-up Pin Configuration for WUU_Pn<br><br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br><br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event                   |

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| Field            | Function   |
|------------------|--|
|                  | 11b - Reserved   |
| 23-22<br>WUPDC27 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 21-20<br>WUPDC26 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 19-18<br>WUPDC25 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 17-16<br>WUPDC24 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 15-14<br>WUPDC23 | Wake-up Pin Configuration for WUU_Pn<br>Configures an external pin as an interrupt, DMA, or trigger wake-up source.<br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |
| 13-12            | Wake-up Pin Configuration for WUU_Pn   |

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| Field               | Function   |
|---------------------|--|
| WUPDC22             | <p>Configures an external pin as an interrupt, DMA, or trigger wake-up source.</p> <p>00b - Interrupt<br/>01b - DMA request<br/>10b - Trigger event<br/>11b - Reserved</p>   |
| 11-10<br>Reserved21 | <p>Reserved</p> <p>00b - Not supported<br/>01b - Not supported<br/>10b - Not supported<br/>11b - Not supported</p>   |
| 9-8<br>WUPDC20      | <p>Wake-up Pin Configuration for WUU_Pn</p> <p>Configures an external pin as an interrupt, DMA, or trigger wake-up source.</p> <p>00b - Interrupt<br/>01b - DMA request<br/>10b - Trigger event<br/>11b - Reserved</p> |
| 7-6<br>WUPDC19      | <p>Wake-up Pin Configuration for WUU_Pn</p> <p>Configures an external pin as an interrupt, DMA, or trigger wake-up source.</p> <p>00b - Interrupt<br/>01b - DMA request<br/>10b - Trigger event<br/>11b - Reserved</p> |
| 5-4<br>WUPDC18      | <p>Wake-up Pin Configuration for WUU_Pn</p> <p>Configures an external pin as an interrupt, DMA, or trigger wake-up source.</p> <p>00b - Interrupt<br/>01b - DMA request<br/>10b - Trigger event<br/>11b - Reserved</p> |
| 3-2<br>Reserved17   | <p>Reserved</p> <p>00b - Not supported<br/>01b - Not supported<br/>10b - Not supported</p>   |

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| Field             | Function   |
|-------------------|--|
|                   | 11b - Not supported  |
| 1-0<br>Reserved16 | Reserved<br>00b - Not supported<br>01b - Not supported<br>10b - Not supported<br>11b - Not supported |

### 16.7.1.12 Pin Filter DMA/Trigger Configuration (FDC)

#### Offset

| Register | Offset |
|----------|--------|
| FDC      | 48h    |

#### Function

Configures the external pin filters to generate an interrupt, DMA, or a trigger request when detected.

- When configured as an interrupt, the interrupt is asserted when the edge programmed in FILT $m$ [FILTE $n$ ] is detected and remains asserted until the corresponding FILTF $n$  flag is cleared.
- When configured as a DMA request, the request is asserted when the edge programmed in FILT $m$ [FILTE $n$ ] is detected and remains asserted until either the corresponding FILTF $n$  flag is cleared or until the requested DMA transfer is complete.
- When configured as a trigger request, the trigger is asserted when the level programmed in [Pin Filter \(FILT\)](#) is detected and remains asserted when the input pin is asserted. The corresponding FILTF $n$  flag will not be set.

#### NOTE

VSYS warm reset resets this register.

#### Diagram

|       |    |    |    |    |    |    |    |    |    |    |    |    |        |    |        |    |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|--------|----|--------|----|
| Bits  | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19     | 18 | 17     | 16 |
| R     |    |    |    |    |    |    |    |    | 0  |    |    |    |        |    |        |    |
| W     |    |    |    |    |    |    |    |    |    |    |    |    |        |    |        |    |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0      | 0  | 0      | 0  |
| Bits  | 15 | 14 | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  | 4  | 3      | 2  | 1      | 0  |
| R     |    |    |    |    |    |    |    |    | 0  |    |    |    | FILTC2 |    | FILTC1 |    |
| W     |    |    |    |    |    |    |    |    |    |    |    |    |        |    |        |    |
| Reset | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0      | 0  | 0      | 0  |

**Fields**

| Field                      | Function  |
|----------------------------|---|
| 31-4<br>—                  | Reserved  |
| 3-2: FILTC2<br>1-0: FILTC1 | Filter Configuration for FILTn<br><br>Configures a filter as an interrupt, DMA, or trigger wake-up source.<br><br>00b - Interrupt<br>01b - DMA request<br>10b - Trigger event<br>11b - Reserved |

**16.7.1.13 Pin Mode Configuration (PMC)****Offset**

| Register | Offset |
|----------|--------|
| PMC      | 50h    |

**Function**

Configures the detection logic for the available external wake-up input pins to remain enabled during all power modes, not just during Power Down/ mode.

**NOTE**

VSYS warm reset resets this register.

**Diagram**

| Bits  | 31          | 30 | 29          | 28          | 27          | 26          | 25          | 24          | 23          | 22          | 21 | 20          | 19          | 18          | 17 | 16 |
|-------|-------------|----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|-------------|-------------|-------------|----|----|
| R     | WUPM<br>C31 | 0  | WUPM<br>C29 | WUPM<br>C28 | WUPM<br>C27 | WUPM<br>C26 | WUPM<br>C25 | WUPM<br>C24 | WUPM<br>C23 | WUPM<br>C22 | 0  | WUPM<br>C20 | WUPM<br>C19 | WUPM<br>C18 | 0  | 0  |
| W     |             |    |             |             |             |             |             |             |             |             |    |             |             |             |    |    |
| Reset | 0           | 0  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0  |
| Bits  | 15          | 14 | 13          | 12          | 11          | 10          | 9           | 8           | 7           | 6           | 5  | 4           | 3           | 2           | 1  | 0  |
| R     | 0           | 0  | 0           | WUPM<br>C12 | WUPM<br>C11 | WUPM<br>C10 | WUPM<br>C9  | WUPM<br>C8  | WUPM<br>C7  | WUPM<br>C6  | 0  | 0           | 0           | WUPM<br>C2  | 0  | 0  |
| W     |             |    |             |             |             |             |             |             |             |             |    |             |             |             |    |    |
| Reset | 0           | 0  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0  |

**Fields**

| Field            | Function  |
|------------------|---|
| 31<br>WUPMC31    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 30<br>Reserved30 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 29<br>WUPMC29    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 28<br>WUPMC28    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 27<br>WUPMC27    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 26<br>WUPMC26    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 25<br>WUPMC25    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p>  |

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| Field            | Function  |
|------------------|---|
|                  | <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p>  |
| 24<br>WUPMC24    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 23<br>WUPMC23    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 22<br>WUPMC22    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 21<br>Reserved21 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 20<br>WUPMC20    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 19<br>WUPMC19    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p>  |

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| Field            | Function  |
|------------------|---|
|                  | 1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).   |
| 18<br>WUPMC18    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 17<br>Reserved17 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 16<br>Reserved16 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 15<br>Reserved15 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 14<br>Reserved14 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 13<br>Reserved13 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |
| 12<br>WUPMC12    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 11<br>WUPMC11    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p>  |

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| Field          | Function  |
|----------------|---|
|                | 1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).   |
| 10<br>WUPMC10  | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 9<br>WUPMC9    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 8<br>WUPMC8    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 7<br>WUPMC7    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 6<br>WUPMC6    | <p>Wake-up Pin Mode Configuration for WUU_Pn</p> <p>Configures an external wake-up pin to provide active detection during all power modes.</p> <p>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> <p>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).</p> |
| 5<br>Reserved5 | <p>Reserved</p> <p>0b - Not supported</p> <p>1b - Not supported</p>   |

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| Field          | Function   |
|----------------|--|
| 4<br>Reserved4 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 3<br>Reserved3 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 2<br>WUPMC2    | Wake-up Pin Mode Configuration for WUU_Pn<br>Configures an external wake-up pin to provide active detection during all power modes.<br>0b - Active only during a low-leakage mode. You can modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn).<br>1b - Active during all power modes. Do not modify the corresponding fields within Pin Enable (PEn) or Pin DMA/Trigger Configuration (PDCn). |
| 1<br>Reserved1 | Reserved<br>0b - Not supported<br>1b - Not supported   |
| 0<br>Reserved0 | Reserved<br>0b - Not supported<br>1b - Not supported   |

#### 16.7.1.14 Pin Filter Mode Configuration (FMC)

##### Offset

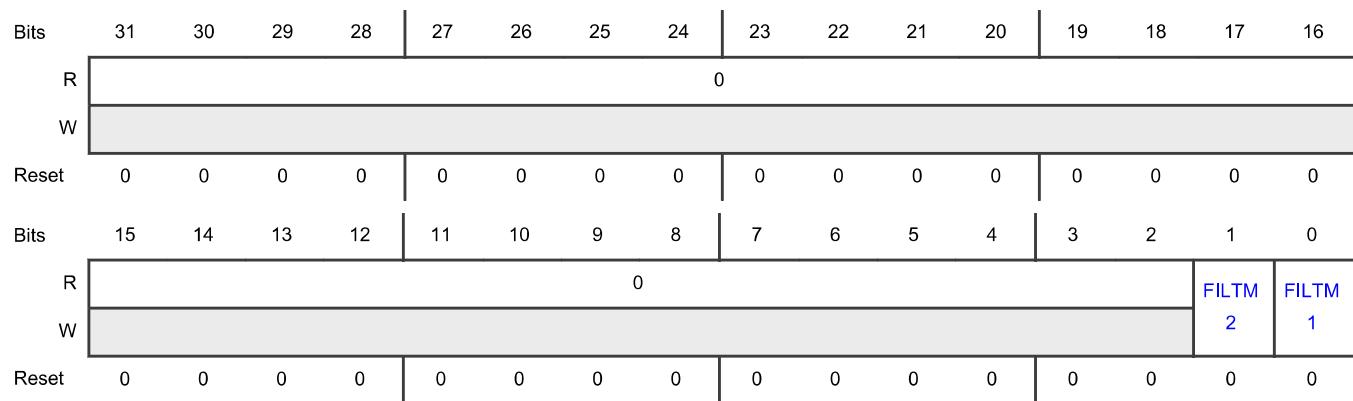
| Register | Offset |
|----------|--------|
| FMC      | 58h    |

##### Function

Configures the detection logic for external pin filters to remain enabled during all power modes, not just during Power Down/Deep Power Down mode.

##### NOTE

VSYS warm reset resets this register.

**Diagram****Fields**

| Field         | Function  |
|---------------|---|
| 31-2          | Reserved  |
| —             |   |
| 1-0<br>FILTMn | Filter Mode for FILTn<br>Configures an external wake-up pin filter to provide active detection during all power modes.<br>0b - Active only during Power Down/Deep Power Down mode<br>1b - Active during all power modes |