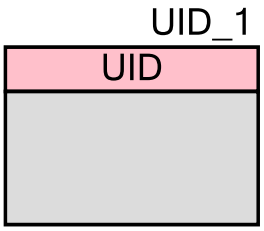
Unique Id (PDL_UID)
1.0



Features

- 41 bit of preset device unique value

General Description

The Peripheral Driver Library (PDL) Unique ID (PDL_UID) component provides 41 bits of preset device unique values. These values are different from each other in all of the devices. They allow using these bits for various purposes, such as security enhancement and product serial number. This register is a read-only register, which cannot be written by the user. Also, these values will not be changed due to reset or power on/off.

This component uses firmware drivers from the PDL_UID module, which is automatically added to your project after a successful build.

When to Use a PDL_UID Component

Use the UID component when you need to read unique ID of a used microcontroller.

Quick Start

1. Drag a PDL_UID component from the Component Catalog FMx/System/Unique Id folder onto your schematic. The placed instance takes the name UID_1.
2. There is no need to open Configure Dialog. This component doesn't provide any parameters.
3. Build the project to verify the correctness of your design. This will add the required PDL modules to the Workspace Explorer, and generate configuration data for the UID_1 instance.
4. In the *main.c* file, initialize the peripheral and start the application.

```
stc_unique_id_t stcUniqueId;
Uid_ReadUniqueId(&stcUniqueId);
```

5. Build and program the device.

Component Usage

After a successful build, firmware drivers from the PDL_UID module, are added to your project in the pdl/drivers/uid folder. Pass the generated data structures to the associated PDL functions in your application initialization code to configure the peripheral.

Generated Data

The PDL_UID component doesn't populates any peripheral initialization data structure(s).

Once the component is initialized, the application code should use the peripheral functions provided in the referenced PDL files. Refer to the PDL documentation for the list of provided API functions. To access this document, right-click on the component symbol on the schematic and choose "**Open API Documentation…**" option in the drop-down menu.

Code Examples and Application Notes

There are numerous code examples that include schematics and example code available online at the Cypress Code Examples web page.

Cypress also provides a number of application notes describing how FMx devices can be integrated into your design. You can access the Cypress Application Notes search web page at www.cypress.com/appnotes.

Resources

The PDL_UID component uses the Unique ID peripheral block.

References

- FM0+ Family of 32-bit ARM® Cortex®-M0+ Microcontrollers Peripheral Manuals
- Cypress FM0+ Family of 32-bit ARM® Cortex®-M0+ Microcontrollers

Component Changes

This section lists the major changes in the component from the previous version.

Version	Description of Changes	Reason for Changes / Impact
1.0	Initial Version	

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