AArch64
Instructions

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External Registers

MPAMF_IIDR, MPAM Implementation Identification Register

The MPAMF IIDR characteristics are:

Purpose

Uniquely identifies the MSC implementation by the combination of implementer, product ID, variant, and revision.

Configuration

This register is present only when FEAT_MPAM is implemented. Otherwise, direct accesses to MPAMF IIDR are res0.

The power and reset domain of each MSC component is specific to that component.

Attributes

MPAMF_IIDR is a 32-bit register.

Field descriptions

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
ProductID	Variant	Revision		In	np	len	ne	nte	er			

ProductID, bits [31:20]

The MSC implementer as identified in the MPAMF_IIDR.Implementer field must assure each product has a unique ProductID from any other with the same Implementer value.

This field has an implementation defined value.

Access to this field is **RO**.

Variant, bits [19:16]

This field distinguishes product variants or major revisions of the product.

Note

Implementations of ProductID with differing software interfaces are expected to have different values in the MPAMF IIDR.Variant field.

This field has an implementation defined value.

Access to this field is **RO**.

Revision, bits [15:12]

This field distinguishes minor revisions of the product.

Note

This field is intended to differentiate product revisions that are minor changes and are largely software compatible with previous revisions.

This field has an implementation defined value.

Access to this field is **RO**.

Implementer, bits [11:0]

Contains the JEP106 code of the company that implemented the MPAM MSC.

[11:8] must contain the JEP106 continuation code of the implementer.

[7] must always be 0.

[6:0] must contain the JEP106 identity code of the implementer.

For an Arm implementation, bits[11:0] are 0x43B.

Accessing MPAMF_IIDR

This register is within the MPAM feature page memory frames.

In a system that supports Secure, Non-secure, Root, and Realm memory maps, there must be MPAM feature pages in all four address maps.

 $MPAMF_IIDR is \ read-only.$

MPAMF_IIDR must be readable from the Secure, Non-secure, Root, and Realm MPAM feature pages.

MPAMF_IIDR must have the same contents in the Secure, Non-secure, Root, and Realm MPAM feature pages.

MPAMF IIDR can be accessed through the memory-mapped interfaces:

Component Frame		Offset	Instance
MPAM	MPAMF_BASE_s	0x0018	MPAMF_IIDR_s

Accesses on this interface are **RO**.

Component Frame		Offset	Instance
MPAM	MPAMF_BASE_ns	0x0018	MPAMF_IIDR_ns

Accesses on this interface are RO.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rt	0x0018	MPAMF_IIDR_rt

When FEAT RME is implemented, accesses on this interface are RO.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rl	0x0018	MPAMF_IIDR_rl

When FEAT RME is implemented, accesses on this interface are **RO**.

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