

MPAMF_CPOR_IDR, MPAM Features Cache Portion Partitioning ID register

The MPAMF_CPOR_IDR characteristics are:

Purpose

Indicates the number of bits in [MPAMCFG_CPBM<n>](#).

MPAMF_CPOR_IDR_s indicates the number of bits in the Secure instance of [MPAMCFG_CPBM<n>](#). MPAMF_CPOR_IDR_ns indicates the number of bits in the Non-secure instance of [MPAMCFG_CPBM<n>](#). MPAMF_CPOR_IDR_rt indicates the number of bits in the Root instance of [MPAMCFG_CPBM<n>](#). MPAMF_CPOR_IDR_rl indicates the number of bits in the Realm instance of [MPAMCFG_CPBM<n>](#).

When [MPAMF_IDR](#).HAS_RIS is 1, some fields in this register give information for the resource instance selector, [MPAMCFG_PART_SEL](#).RIS. The description of every field that is affected by [MPAMCFG_PART_SEL](#).RIS has information within the field description.

Configuration

This register is present only when FEAT_MPAM is implemented and MPAMF_IDR.HAS_CPOR_PART == 1. Otherwise, direct accesses to MPAMF_CPOR_IDR are res0.

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

Attributes

MPAMF_CPOR_IDR 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
RES0																CPBM_WD															

Bits [31:16]

Reserved, res0.

CPBM_WD, bits [15:0]

Number of bits in the cache portion partitioning bit map of this device. See [MPAMCFG_CPBM<n>](#).

This field must contain a value from 1 to 32768, inclusive. Values greater than 32 require a group of 32-bit registers to access the CPBM, up to 1024 if CPBM_WD is the largest value.

If RIS is implemented, this field indicates the number bits in the cache portion bitmap for the resource instance selected by [MPAMCFG_PART_SEL](#).RIS.

Accessing MPAMF_CPOR_IDR

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_CPOR_IDR is read-only.

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

MPAMF_CPOR_IDR is permitted to have the same contents when read from the Secure, Non-secure, Root, and Realm MPAM feature pages unless the register contents are different for the different versions:

- MPAMF_CPOR_IDR_s is permitted to have either the same or different contents to MPAMF_CPOR_IDR_ns, MPAMF_CPOR_IDR_rt, or MPAMF_CPOR_IDR_rl.
- MPAMF_CPOR_IDR_ns is permitted to have either the same or different contents to MPAMF_CPOR_IDR_rt or MPAMF_CPOR_IDR_rl.
- MPAMF_CPOR_IDR_rt is permitted to have either the same or different contents to MPAMF_CPOR_IDR_rl.

There must be separate registers in the Secure (MPAMF_CPOR_IDR_s), Non-secure (MPAMF_CPOR_IDR_ns), Root (MPAMF_CPOR_IDR_rt), and Realm (MPAMF_CPOR_IDR_rl) MPAM feature pages.

When [MPAMF_IDR](#).HAS_RIS is 1, MPAMF_CPOR_IDR shows the configuration of cache portion partitioning for the cache resource instance selected by [MPAMCFG_PART_SEL](#).RIS. Fields that mention RIS in their field descriptions have values that track the implemented properties of the resource instance. Fields that do not mention RIS are constant across all resource instances.

MPAMF_CPOR_IDR can be accessed through the memory-mapped interfaces:

Component	Frame	Offset	Instance
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MPAM	MPAMF_BASE_s	0x0030	MPAMF_CPOR_IDR_s
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Accesses on this interface are **RO**.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_ns	0x0030	MPAMF_CPOR_IDR_ns

Accesses on this interface are **RO**.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rt	0x0030	MPAMF_CPOR_IDR_rt

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

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rl	0x0030	MPAMF_CPOR_IDR_rl

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

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