MPAMF_ERR_MSI_DATA, MPAM Error MSI Data Register

The MPAMF_ERR_MSI_DATA characteristics are:

Purpose

MPAMF_ERR_MSI_DATA is a 32-bit read/write register for the MPAM error MSI data.

MPAMF_ERR_MSI_DATA_s is the data for the MSI write for error interrupts related to Secure PARTIDs. MPAMF_ERR_MSI_DATA_ns is the data for the MSI write for error interrupts related to Non-secure PARTIDs. MPAMF_ERR_MSI_DATA_rt is the data for the MSI write for error interrupts related to Root PARTIDs. MPAMF_ERR_MSI_DATA_rl is the data for the MSI write for error interrupts related to Realm PARTIDs.

Configuration

This register is present only when (FEAT_MPAMv0p1 is implemented or FEAT_MPAMv1p1 is implemented) and MPAMF_IDR.HAS_ERR_MSI == 1. Otherwise, direct accesses to MPAMF_ERR_MSI_DATA are res0.

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

Attributes

MPAMF_ERR_MSI_DATA 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
MSI_DATA																															

MSI_DATA, bits [31:0]

MSI data to be written to ITS to signal an MSI.

Accessing MPAMF_ERR_MSI_DATA

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_ERR_MSI_DATA_s must only be accessible from the Secure MPAM feature page.
- MPAMF_ERR_MSI_DATA_ns must only be accessible from the Non-secure MPAM feature page.
- MPAMF_ERR_MSI_DATA_rt must only be accessible from the Root MPAM feature page.
- MPAMF_ERR_MSI_DATA_rl must only be accessible from the Realm MPAM feature page.

MPAMF_ERR_MSI_DATA_s, MPAMF_ERR_MSI_DATA_ns, MPAMF_ERR_MSI_DATA_rt, and MPAMF_ERR_MSI_DATA_rl must be separate registers:

- The Secure instance (MPAMF_ERR_MSI_DATA_s) accesses the data for MSI write to signal an MPAM error used for Secure PARTIDs.
- The Non-secure instance (MPAMF_ERR_MSI_DATA_ns) accesses the data for MSI write to signal an MPAM error used for Non-secure PARTIDs.
- The Root instance (MPAMF_ERR_MSI_DATA_rt) accesses the data for MSI write to signal an MPAM error used for Root PARTIDs.
- The Realm instance (MPAMF_ERR_MSI_DATA_rl) accesses the data for MSI write to signal an MPAM error used for Realm PARTIDs.

MPAMF_ERR_MSI_DATA can be accessed through the memory-mapped interfaces:

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_s	0x00E8	MPAMF_ERR_MSI_DATA_s

Accesses on this interface are **RW**.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_ns	0x00E8	MPAMF_ERR_MSI_DATA_ns

Accesses on this interface are **RW**.

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rt	0x00E8	MPAMF_ERR_MSI_DATA_rt

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

Component	Frame	Offset	Instance
MPAM	MPAMF_BASE_rl	0x00E8	MPAMF_ERR_MSI_DATA_rl

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

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