

GMID_EL1, Multiple tag transfer ID Register

The GMID_EL1 characteristics are:

Purpose

Indicates the block size that is accessed by the LDGM and STGM System instructions.

Configuration

This register is present only when FEAT_MTE2 is implemented. Otherwise, direct accesses to GMID_EL1 are undefined.

Attributes

GMID_EL1 is a 64-bit register.

Field descriptions

63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
RES0																															
RES0																														BS	
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

Bits [63:4]

Reserved, res0.

BS, bits [3:0]

\log_2 of the block size in words. The minimum supported size is 16B (value == 2) and the maximum is 256B (value == 6).

Accessing GMID_EL1

Accesses to this register use the following encodings in the System register encoding space:

MRS <Xt>, GMID_EL1

op0	op1	CRn	CRm	op2
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0b11	0b001	0b0000	0b0000	0b100
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```

if PSTATE.EL == EL0 then
    if IsFeatureImplemented(FEAT_IDST) then
        if EL2Enabled() && HCR_EL2.TGE == '1' then
            AArch64.SystemAccessTrap(EL2, 0x18);
        else
            AArch64.SystemAccessTrap(EL1, 0x18);
        else
            UNDEFINED;
    elseif PSTATE.EL == EL1 then
        if EL2Enabled() && HCR_EL2.TID5 == '1' then
            AArch64.SystemAccessTrap(EL2, 0x18);
        else
            X[t, 64] = GMID_EL1;
    elseif PSTATE.EL == EL2 then
        X[t, 64] = GMID_EL1;
    elseif PSTATE.EL == EL3 then
        X[t, 64] = GMID_EL1;

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