

AMAIR_EL3, Auxiliary Memory Attribute Indirection Register (EL3)

The AMAIR_EL3 characteristics are:

Purpose

Provides implementation defined memory attributes for the memory regions specified by [MAIR_EL3](#).

Configuration

This register is present only when EL3 is implemented. Otherwise, direct accesses to AMAIR_EL3 are undefined.

Attributes

AMAIR_EL3 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
IMPLEMENTATION DEFINED																															
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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

AMAIR_EL3 is permitted to be cached in a TLB.

IMPLEMENTATION DEFINED, bits [63:0]

implementation defined.

The reset behavior of this field is:

- On a Warm reset, this field resets to an architecturally unknown value.

Accessing AMAIR_EL3

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

MRS <Xt>, AMAIR_EL3

op0	op1	CRn	CRm	op2
0b11	0b110	0b1010	0b0011	0b000

```
if PSTATE.EL == EL0 then
    UNDEFINED;
elsif PSTATE.EL == EL1 then
    UNDEFINED;
elsif PSTATE.EL == EL2 then
    UNDEFINED;
elsif PSTATE.EL == EL3 then
    X[t, 64] = AMAIR_EL3;
```

MSR AMAIR_EL3, <Xt>

op0	op1	CRn	CRm	op2
0b11	0b110	0b1010	0b0011	0b000

```
if PSTATE.EL == EL0 then
    UNDEFINED;
elsif PSTATE.EL == EL1 then
    UNDEFINED;
elsif PSTATE.EL == EL2 then
    UNDEFINED;
elsif PSTATE.EL == EL3 then
    AMAIR_EL3 = X[t, 64];
```

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