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AFSR0_EL3, Auxiliary Fault Status Register 0 (EL3)

The AFSR0 EL3 characteristics are:

Purpose

Provides additional implementation defined fault status information for exceptions taken to EL3.

Configuration

This register is present only when EL3 is implemented. Otherwise, direct accesses to AFSR0 EL3 are undefined.

Attributes

AFSR0 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
IMPLEMENTATION DEFINED

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

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 AFSR0_EL3

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

MRS <Xt>, AFSR0_EL3

op0	op1	CRn	CRm	op2
-----	-----	-----	-----	-----

0511 05110 050101 050001 05000	0b11	0b110	0b0101	0b0001	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] = AFSRO_EL3;
```

MSR AFSR0_EL3, <Xt>

op0	op1	CRn	CRm	op2
0b11	0b110	0b0101	0b0001	0b000

```
if PSTATE.EL == EL0 then
     UNDEFINED;
elsif PSTATE.EL == EL1 then
     UNDEFINED;
elsif PSTATE.EL == EL2 then
     UNDEFINED;
elsif PSTATE.EL == EL3 then
     AFSRO_EL3 = X[t, 64];
```

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External Registers

28/03/2023 16:02; 72747e43966d6b97dcbd230a1b3f0421d1ea3d94

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