

## TPIDR\_EL3, EL3 Software Thread ID Register

The TPIDR\_EL3 characteristics are:

### Purpose

Provides a location where software executing at EL3 can store thread identifying information, for OS management purposes.

The PE makes no use of this register.

### Configuration

This register is present only when EL3 is implemented. Otherwise, direct accesses to TPIDR\_EL3 are undefined.

### Attributes

TPIDR\_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
Thread ID																															
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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

### Bits [63:0]

Thread ID. Thread identifying information stored by software running at this Exception level.

The reset behavior of this field is:

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

### Accessing TPIDR\_EL3

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

## MRS <Xt>, TPIDR\_EL3

op0	op1	CRn	CRm	op2
0b11	0b110	0b1101	0b0000	0b010

```
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] = TPIDR_EL3;
```

## MSR TPIDR\_EL3, <Xt>

op0	op1	CRn	CRm	op2
0b11	0b110	0b1101	0b0000	0b010

```
if PSTATE.EL == EL0 then
    UNDEFINED;
elsif PSTATE.EL == EL1 then
    UNDEFINED;
elsif PSTATE.EL == EL2 then
    UNDEFINED;
elsif PSTATE.EL == EL3 then
    TPIDR_EL3 = X[t, 64];
```

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[AArch32  
Registers](#)

[AArch64  
Registers](#)

[AArch32  
Instructions](#)

[AArch64  
Instructions](#)

[Index by  
Encoding](#)

[External  
Registers](#)

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