

SP_EL3, Stack Pointer (EL3)

The SP_EL3 characteristics are:

Purpose

Holds the stack pointer associated with EL3. When executing at EL3, the value of [SPSel.SP](#) determines the current stack pointer:

SPSel.SP	Current stack pointer
0b0	SP_EL0
0b1	SP_EL3

Configuration

This register is present only when EL3 is implemented. Otherwise, direct accesses to SP_EL3 are undefined.

Attributes

SP_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
Stack pointer																															
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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]

Stack pointer.

The reset behavior of this field is:

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

Accessing SP_EL3

This register is not accessible using MRS and MSR instructions.

When the value of [SPSel.SP](#) is 1, this register is accessible at EL3 as the current stack pointer.

Note

When the value of [SPSel.SP](#) is 0, [SP_ELO](#) is used as the current stack pointer at all Exception levels.

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