ABS

Absolute value computes the absolute value of the signed integer value in the source register, and writes the result to the destination register.

Integer
(FEAT_CSSC)

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
sf	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	Rn	Rd

32-bit (sf == 0)

        ABS <Wd>, <Wn>

64-bit (sf == 1)

        ABS <Xd>, <Xn>

```
if !IsFeatureImplemented(FEAT_CSSC) then UNDEFINED;
constant integer datasize = 32 << UInt(sf);
integer n = UInt(Rn);
integer d = UInt(Rd);
```

Assembler Symbols

<Wd>	Is the 32-bit name of the general-purpose destination register, encoded in the "Rd" field.
<Wn>	Is the 32-bit name of the general-purpose source register, encoded in the "Rn" field.
<Xd>	Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.
<Xn>	Is the 64-bit name of the general-purpose source register, encoded in the "Rn" field.

Operation

```
bits(datasize) operand1 = X[n, datasize];
integer result = Abs(SInt(operand1));
X[d, datasize] = result<datasize-1:0>;
```

Operational information

If PSTATE.DIT is 1:

- The execution time of this instruction is independent of:
    - The values of the data supplied in any of its registers.

- The values of the NZCV flags.
- The response of this instruction to asynchronous exceptions does not vary based on:
  - The values of the data supplied in any of its registers.
  - The values of the NZCV flags.

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