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<u>Instructions</u>	<u>Instructions</u>	<u>Instructions</u>	<u>Instructions</u>	Encoding

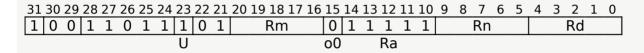
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UMULL

Unsigned Multiply Long multiplies two 32-bit register values, and writes the result to the 64-bit destination register.

This is an alias of **UMADDL**. This means:

- The encodings in this description are named to match the encodings of <u>UMADDL</u>.
- The description of <u>UMADDL</u> gives the operational pseudocode, any constrained unpredictable behavior, and any operational information for this instruction.



is equivalent to

```
UMADDL <Xd>, <Wn>, <Wm>, XZR
```

and is always the preferred disassembly.

Assembler Symbols

<xd></xd>	Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.
<wn></wn>	Is the 32-bit name of the first general-purpose source register holding the multiplicand, encoded in the "Rn" field.
<wm></wm>	Is the 32-bit name of the second general-purpose source register holding the multiplier, encoded in the "Rm" field.

Operation

The description of <u>UMADDL</u> gives the operational pseudocode for this instruction.

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.

0	The	values	of the	NZCV	flags.
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Internal version only: isa v33.64, AdvSIMD v29.12, pseudocode no_diffs_2023_09_RC2, sve v2023-06_rel ; Build timestamp: 2023-09-18T17:56

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