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#### **UXTH**

Unsigned Extend Halfword extracts a 16-bit value from a register, zero-extends it to the size of the register, and writes the result to the destination register.

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

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

31 30 29 2	8 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
0 1 0 1	Ι 0	0	1	10000000			0	0	0	1 1 1 1					Rn					Rd								
sf opc						N			immr imms																			

## 32-bit

```
UXTH <Wd>, <Wn>
is equivalent to
    UBFM <Wd>>, <Wn>, #0, #15
```

and is always the preferred disassembly.

## **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.

## **Operation**

The description of  $\underline{\mathsf{UBFM}}$  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.
  - The values of the NZCV flags.

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