

SQCVTU (two registers)

Multi-vector signed saturating unsigned extract narrow

Saturate the signed integer value in each element of the two source vectors to unsigned integer value that is half the original source element width, and place the results in the half-width destination elements.

This instruction is unpredicated.

SME2

(FEAT_SME2)

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	
1	1	0	0	0	0	0	1	0	1	1	0	0	0	1	1	1	1	1	0	0	0	Zn			0	Zd						
																										U						

SQCVTU <Zd>.H, { <Zn1>.S-<Zn2>.S }

```
if !HaveSME2() then UNDEFINED;
constant integer esize = 16;
integer n = UInt(Zn:'0');
integer d = UInt(Zd);
```

Assembler Symbols

- <Zd> Is the name of the destination scalable vector register, encoded in the "Zd" field.
- <Zn1> Is the name of the first scalable vector register of a multi-vector sequence, encoded as "Zn" times 2.
- <Zn2> Is the name of the second scalable vector register of a multi-vector sequence, encoded as "Zn" times 2 plus 1.

Operation

```
CheckStreamingSVEEnabled();
constant integer VL = CurrentVL;
constant integer elements = VL DIV (2 * esize);
bits(VL) result;

for r = 0 to 1
    bits(VL) operand = Z[n+r, VL];
    for e = 0 to elements-1
        integer element = Sint(Elem[operand, e, 2 * esize]);
        Elem[result, r*elements + e, esize] = UnsignedSat(element, esize);
Z[d, VL] = result;
```

[Base
Instructions](#)

[SIMD&FP
Instructions](#)

[SVE
Instructions](#)

[SME
Instructions](#)

[Index by
Encoding](#)

[Sh
Pseudocode](#)

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

Copyright Â© 2010-2023 Arm Limited or its affiliates. All rights reserved. This
document is Non-Confidential.