

## FCMLT (vectors)

Floating-point compare less than vector

Compare active floating-point elements in the first source vector being less than corresponding elements in the second source vector, and place the boolean results of the comparison in the corresponding elements of the destination predicate. Inactive elements in the destination predicate register are set to zero. Does not set the condition flags.

This is a pseudo-instruction of [FCM<cc> \(vectors\)](#). This means:

- The encodings in this description are named to match the encodings of [FCM<cc> \(vectors\)](#).
- The assembler syntax is used only for assembly, and is not used on disassembly.
- The description of [FCM<cc> \(vectors\)](#) gives the operational pseudocode, any constrained unpredictable behavior, and any operational information for this instruction.

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
0	1	1	0	0	1	0	1	size	0			Zm		0	1		0		Pg			Zn				1			Pd		
																		cmph												cmpl	

**FCMLT** <Pd> .<T>, <Pg>/Z, <Zm>.<T>, <Zn>.<T>

is equivalent to

**FCMGT** <Pd> .<T>, <Pg>/Z, <Zn>.<T>, <Zm>.<T>

## Assembler Symbols

<Pd> Is the name of the destination scalable predicate register, encoded in the "Pd" field.

<Zm> Is the name of the second source scalable vector register, encoded in the "Zm" field.

<Zn> Is the name of the first source scalable vector register, encoded in the "Zn" field.

<T> Is the size specifier, encoded in "size":

size	<T>
00	RESERVED
01	H
10	S
11	D

<Pg> Is the name of the governing scalable predicate register P0-P7, encoded in the "Pg" field.

## Operation

The description of [FCM<cc> \(vectors\)](#) gives the operational pseudocode for this instruction.

## Operational information

If FEAT\_SME is implemented and the PE is in Streaming SVE mode, then any subsequent instruction which is dependent on the predicate register written by this instruction might be significantly delayed.

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Internal version only: isa v33.64, AdvSIMD v29.12, pseudocode  
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