CPFSGT Compare f with W, skip if f > W

Syntax: [label] CPFSGT f[,a]

Operands: $0 \le f \le 255$

 $a \in [0,1]$

Operation: (f) - (W),

skip if (f) > (W)

(unsigned comparison)

Status Affected: None

Encoding: 0110 010a ffff ffff

Description: Compares the contents of data

memory location 'f' to the contents

of the W by performing an unsigned subtraction.

If the contents of 'f' are greater than the contents of WREG, then the fetched instruction is discarded and a NOP is executed instead, making this a two-cycle instruction. If 'a' is

0, the Access Bank will be

selected, overriding the BSR value.

If 'a' = 1, then the bank will be selected as per the BSR value

(default).

Words: 1

Cycles: 1(2)

Note: 3 cycles if skip and followed

by a 2-word instruction.

Q Cycle Activity:

Q1	Q2	Q3	Q4	
Decode	Read	Process	No	
	register 'f'	Data	operation	

If skip:

Q1	Q2	Q3	Q4
No	No	No	No
operation	operation	operation	operation

If skip and followed by 2-word instruction:

Q1	Q2	Q3	Q4	
No	No	No	No	
operation	operation	operation	operation	
No	No	No	No operation	
operation	operation	operation		

Example:

HERE

CPFSGT REG, 0

NGREATER

GREATER :

Before Instruction

PC

= Address (HERE)

W

= ?

After Instruction

If REG

> W;

PC

= Address (GREATER)

If REG

< W;

PC

= Address (NGREATER)

< Previous instruction: <u>CPFSEQ</u> | Instruction <u>index</u> | Next instruction: <u>CPFSLT</u> >