CPFSEQ

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CPFSEQ	Compare f with W, skip if f = W
Syntax:	[*label*] CPFSEQ f [,a]
Operands:	$0 \leq f \leq 255$ $a \in [0,1]$
Operation:	(f) − (W), skip if (f) = (W) (unsigned comparison)
Status Affected:	None
Encoding:	0110 001a ffff ffff
Description:	Compares the contents of data memory location 'f' to the contents of W by performing an unsigned subtraction. If 'f' = W, 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 register 'f'	Process Data	No operation

If skip:

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

If skip and followed by 2-word instruction:

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

Example:

```
HERE      CPFSEQ REG, 0
NEQUAL    :
EQUAL     :
```

Before Instruction

PC Address	=	HERE
W	=	?
REG	=	?

After Instruction

```
If REG      =   W;
     PC     =   Address (EQUAL)
If REG      ≠   W;
     PC     =   Address (NEQUAL)
```

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```
If REG      =   W;
     PC     =   Address (EQUAL)
If REG      ≠   W;
     PC     =   Address (NEQUAL)
```

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