

## TSTFSZ                      Test f, skip if 0

Syntax:                      [ *label* ] TSTFSZ f[,a]

Operands:                       $0 \leq f \leq 255$   
                                     $a \in [0,1]$

Operation:                      skip if  $f = 0$

Status Affected:              None

Encoding:                      

|      |      |      |      |
|------|------|------|------|
| 0110 | 011a | ffff | ffff |
|------|------|------|------|

Description:                      If 'f' = 0, the next instruction, fetched during the current instruction execution, is discarded and a NOP is executed, making this a two-cycle instruction. If 'a' is 0, the Access Bank will be selected, overriding the BSR value. If 'a' is 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 |

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Example:            HERE        TSTFSZ   CNT, 1  
                     NZERO        :  
                     ZERO        :

Before Instruction

PC = Address (HERE)

After Instruction

If CNT            =    0x00,  
PC                =    Address (ZERO)  
If CNT            ≠    0x00,  
PC                =    Address (NZERO)

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