BTFSC

## Bit Test File, Skip if Clear

Syntax:

[label] BTFSC f,b[,a]

Operands:

 $0 \le f \le 255$ 

 $0 \le b \le 7$  $a \in [0,1]$ 

Operation:

skip if (f < b >) = 0

Status Affected:

None

Encoding:

1011	bbba	ffff	ffff

Description:

If bit 'b' in register 'f' is 0, then the

next instruction is skipped.

If bit 'b' is 0, then the next instruction fetched during the current instruction execution 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	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 BTFSC FLAG, 1, 0

FALSE :

Before Instruction

PC = address (HERE)

After Instruction

If FLAG<1> = 0;

PC = address (TRUE)

If FLAG<1> = 1;

PC = address (FALSE)

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