# RRCF

**Rotate Right f through Carry**

| | |
|---|---|
| Syntax: | [ *label* ]   RRCF   f [,d [,a] |
| Operands: | $0 \le f \le 255$ <br> $d \in [0,1]$ <br> $a \in [0,1]$ |
| Operation: | $(f<n>) \rightarrow dest<n-1>$, <br> $(f<0>) \rightarrow C$, <br> $(C) \rightarrow dest<7>$ |
| Status Affected: | C, N, Z |

Encoding:

| 0011 | 00da | ffff | ffff |
|---|---|---|---|

Description: The contents of register 'f' are rotated one bit to the right through the Carry Flag. If 'd' is 0, the result is placed in W. If 'd' is 1, the result is placed back in register 'f' (default). 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

Q Cycle Activity:

| Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|
| Decode | Read register 'f' | Process Data | Write to destination |

Example:          RRCF          REG, 0, 0

Before Instruction

    REG    =    1110 0110
    C      =    0

After Instruction

```
REG    =   1110 0110
W      =   0111 0011
C      =   0
```

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