

| ALU control | | | Status bits | | | |
|-------------|-------|--------------------------------|-------------|------|------|------|
| (bin) | (dec) | Result | N | Zout | V | Cout |
| 0000 | 0 | A | N | Z | 0 | 0 |
| 0001 | 1 | A plus B | N | Z | V | C |
| 0010 | 2 | A plus B plus Cin | N | Z | V | C |
| 0011 | 3 | A plus \overline{B} plus 1 | N | Z | V | C |
| 0100 | 4 | A plus \overline{B} plus Cin | N | Z | V | C |
| 0101 | 5 | $A \cdot B$ | N | Z | 0 | 0 |
| 0110 | 6 | $\overline{A \cdot B}$ | N | Z | 0 | 0 |
| 0111 | 7 | $A + B$ | N | Z | 0 | 0 |
| 1000 | 8 | $\overline{A + B}$ | N | Z | 0 | 0 |
| 1001 | 9 | $A \oplus B$ | N | Z | 0 | 0 |
| 1010 | 10 | \overline{A} | N | Z | 0 | 0 |
| 1011 | 11 | ASL A | N | Z | V | C |
| 1100 | 12 | ROL A | N | Z | 0 | C |
| 1101 | 13 | ASR A | N | Z | 0 | C |
| 1110 | 14 | ROR A | N | Z | 0 | C |
| 1111 | 15 | 0 | A<4> | A<5> | A<6> | A<7> |