

Standard Functions

Table 2-3 lists the standard ALU functions.

Table 2-3. Standard ALU Functions

Function	Description
$R = X + Y$	Add X and Y operands
$R = X + Y + CI$	Add X and Y operands and carry-in bit
$R = X - Y$	Subtract Y from X operand
$R = X - Y + CI - 1$	Subtract Y from X operand with “borrow”
$R = Y - X$	Subtract X from Y operand
$R = Y - X + CI - 1$	Subtract X from Y operand with “borrow”
$R = -X$	Negate X operand (<i>twos-complement</i>)
$R = -Y$	Negate Y operand (<i>twos-complement</i>)
$R = Y + 1$	Increment Y operand
$R = Y - 1$	Decrement Y operand
$R = PASS\ X$	Pass X operand to result unchanged
$R = PASS\ Y$	Pass Y operand to result unchanged
$R = 0\ (PASS\ 0)$	Clear result to zero
$R = ABS\ X$	Absolute value of X operand
$R = X\ AND\ Y$	Logical AND of X and Y operands
$R = X\ OR\ Y$	Logical OR of X and Y operands