

### FB Module Inputs

Unshifted Operand - The FB module receives a 48 bit unshifted operand coefficient from the FA module. The unshifted coefficient is from the operand that was selected as having the larger exponent.

Shifted Operand - The FB module receives a 49 bit shifted operand coefficient from the FA module. The shifted coefficient is from the operand that was selected as having the smaller exponent. The extra bit that is received is a rounding bit. The rounding bit is set if the coefficient shifting process, on the FA module, resulted in an end off shift of a number larger than one half. The rounding bit acts as a carry into bit zero during the coefficient add process, on the FB module. The rounding bit being set results in the rounding up of the result coefficient.

Subtract Mode - The FB module receives Subtract Mode from the FA module. Subtract Mode is set if the signs of the two operand coefficients are not alike. The FA module does an exclusive of the two coefficient sign bits to determine if the signs are alike.

Adder Control - The FB module receives Go Add from the FA module. Go Add is latched up on the FB clock period eleven of a 120 or 121 instruction. These are floating addition and subtraction instructions which involve two scalar operands. Go Add is latched up on the FB module clock period twelve of a 170-173 instruction. These are floating addition and subtraction instructions which involve either two vector operands or a vector and a scalar operand.