

C166S-V2 CPU Architecture

Multiply Accumulate Unit (MAC)

- MAC unit provides
 - Single instruction cycle
 - 16-bit by 16-bit signed / unsigned multiplication
 - multiplication with cumulative subtractions/additions
 - 32-bit additions
 - 32-bit subtractions
 - right / left shifts
 - Automatic saturation to 32 bit
 - 40 bit accumulator to handle overflow
- 75 % of all MAC instructions executed in one CPU clock cycle