shmult push SR ;save state

push R5

push R6

push R7

push R8

push R9

mov 14(SP),R5 ;A multiplier

mov 16(SP),R6 ;B multiplicand

clr R7 ;R7 for sum

mov #0x0001,R9 ;the mask for testing

mov #8,R8

tol dec R8 ;loop 7 times

jeq done

bit R9,R5 ;test bit of multiplier

jz nxbit ;jump if zero

add R6,R7

nxbit clrc ;prep to rotate

rlc R9 ;rotate mask

rlc R6 ;multiplicand x2

jmp tol

done mov R716(SP)

pop R9

pop R8

pop R7

pop R6

pop R5

pop SR

rtn

mov 16(SP),R6 ;B multiplicand