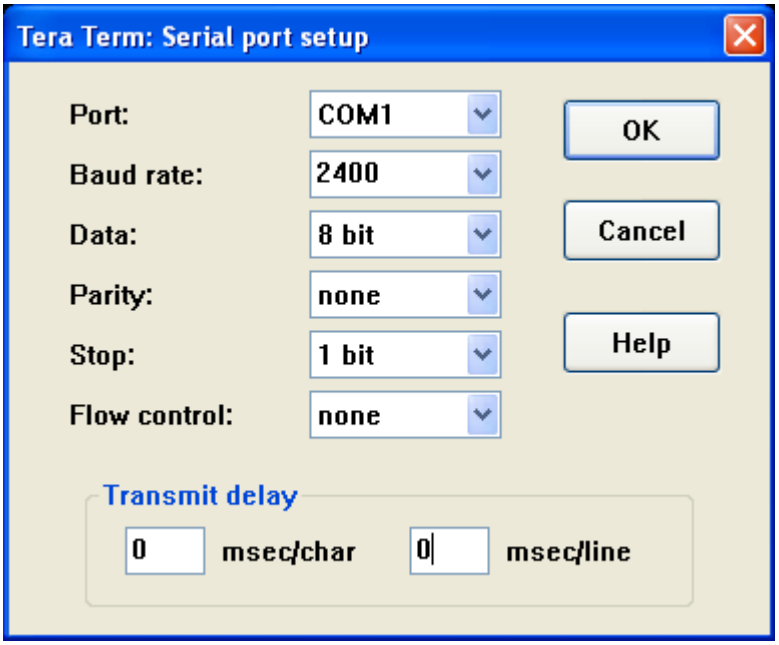
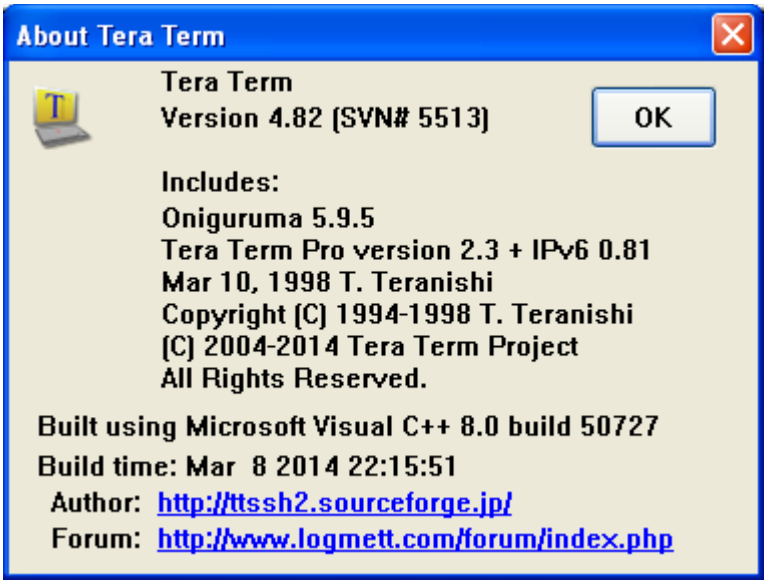
Using MIKBUG serial monitor with 6802 Kit

1. Connect the kit to terminal using RS232 cross cable.

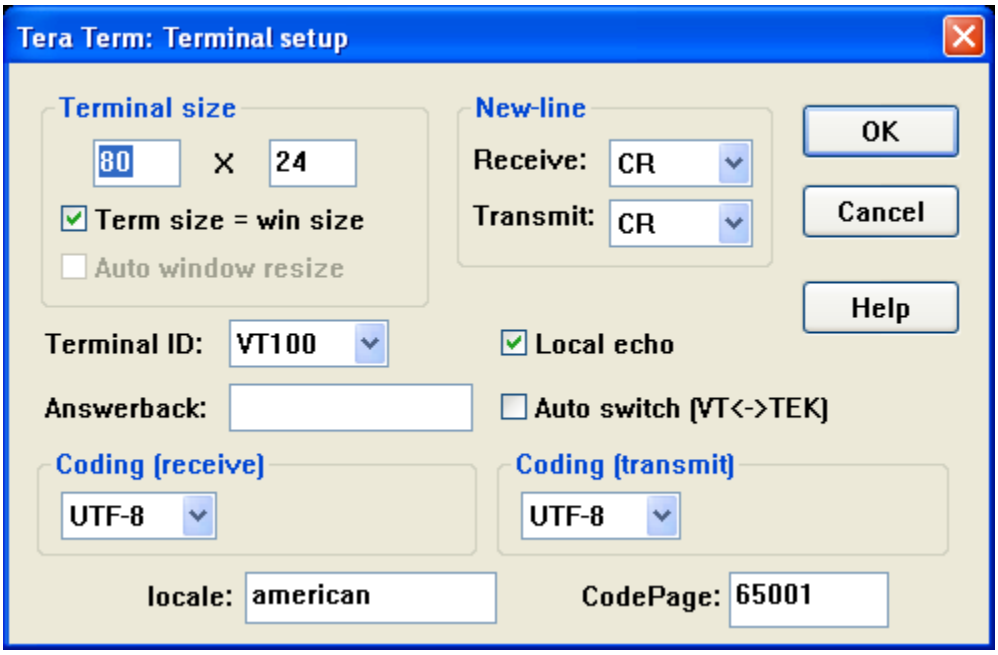
2. Set terminal speed to 2400, 8 data bit no parity and one stop bit.



The example of terminal emulator program is TERA TERM version 4.82

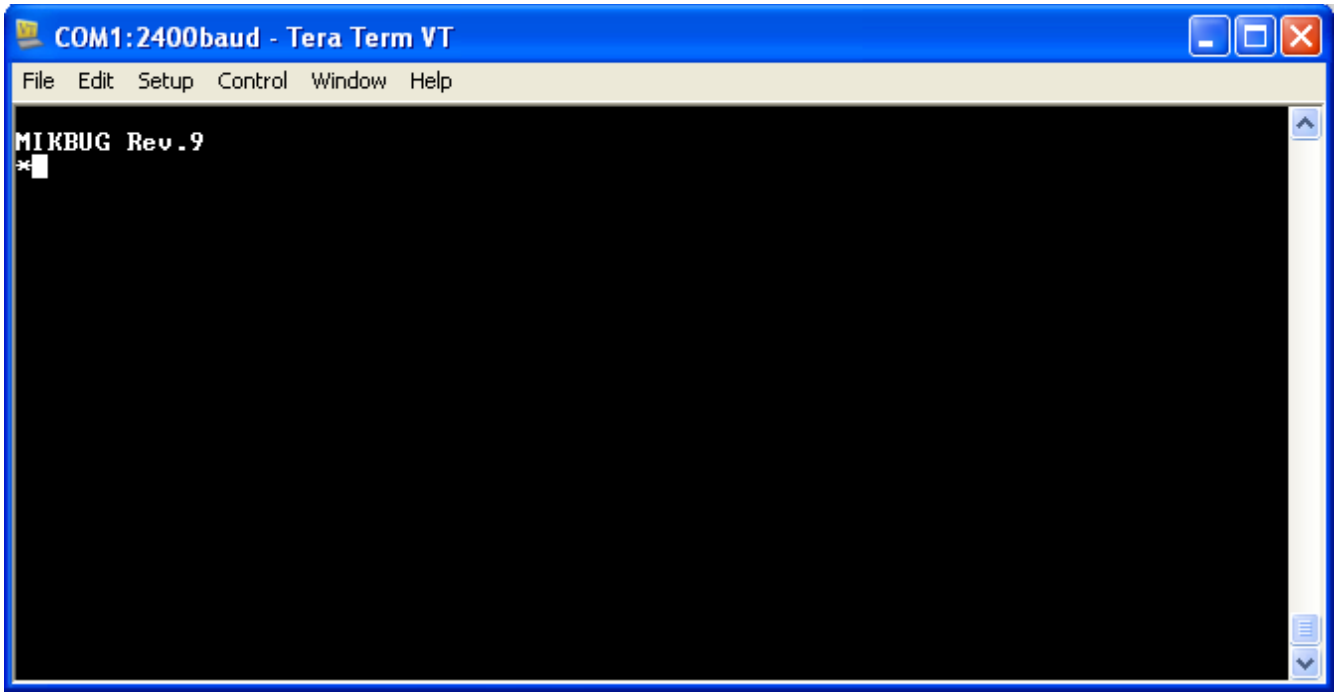


3. Set terminal with LOCAL ECHO

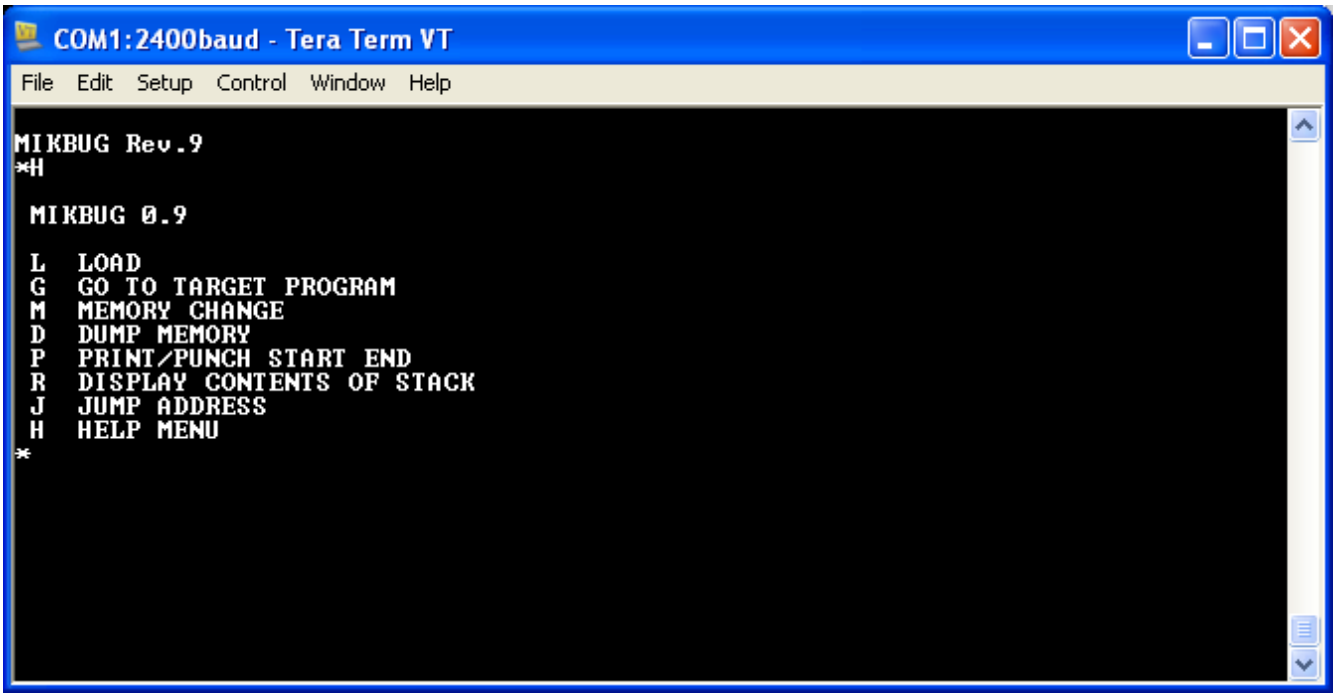


4. Set keyboard of the terminal to CAPS letter.

5. Hit ENTER key, the MIKBUG prompt will be printed.



5. Press key H for HELP menu.

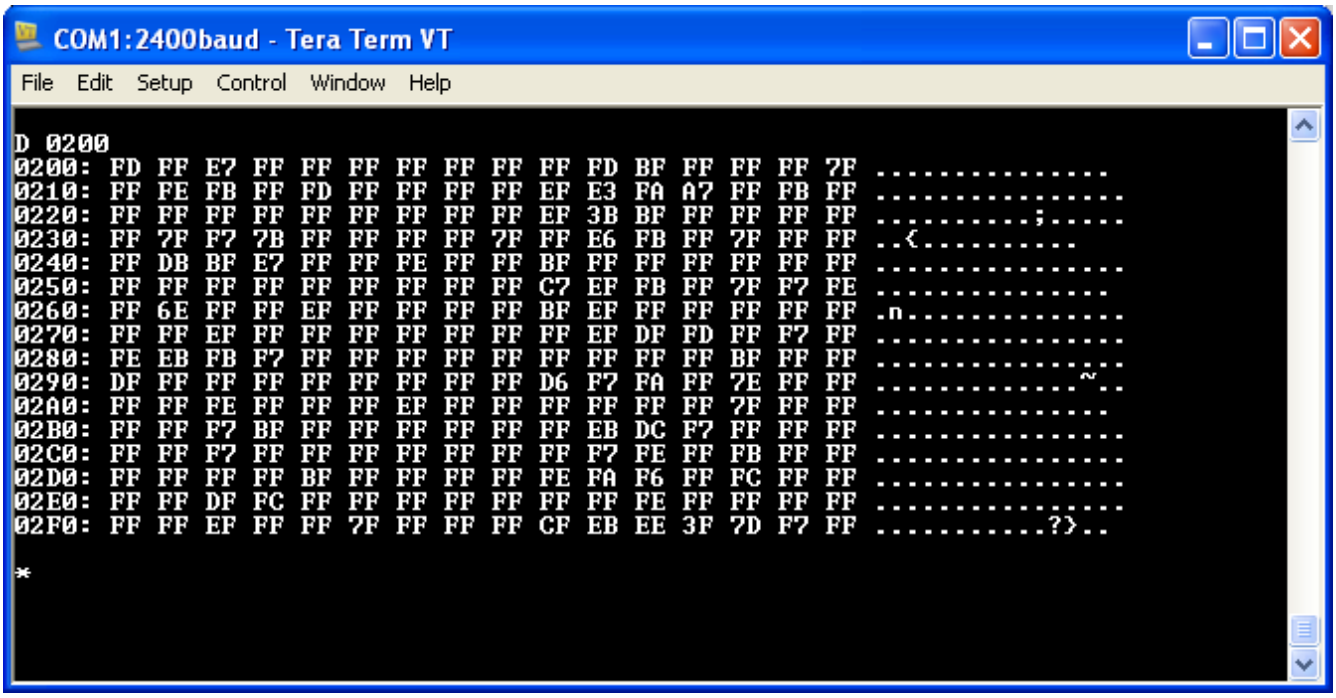


6. The MIKBUG commands are,

L LOAD
G GO TO TARGET PROGRAM
M MEMORY CHANGE
D DUMP MEMORY
P PRINT/PUNCH START END
R DISPLAY CONTENTS OF STACK
J JUMP ADDRESS
H HELP MENU

Command L, Load Motorola S record
Command G, Go to user code at the location stored at address 6048
Command M, Enter hex number to memory
Command D, Dump memory
Command P, Print s record from start to end
Command R, Display content of Stack
Command J, Jump to address

7. Let us try dump the memory started at 0200, enter D 0200



8. Example program for testing command Load

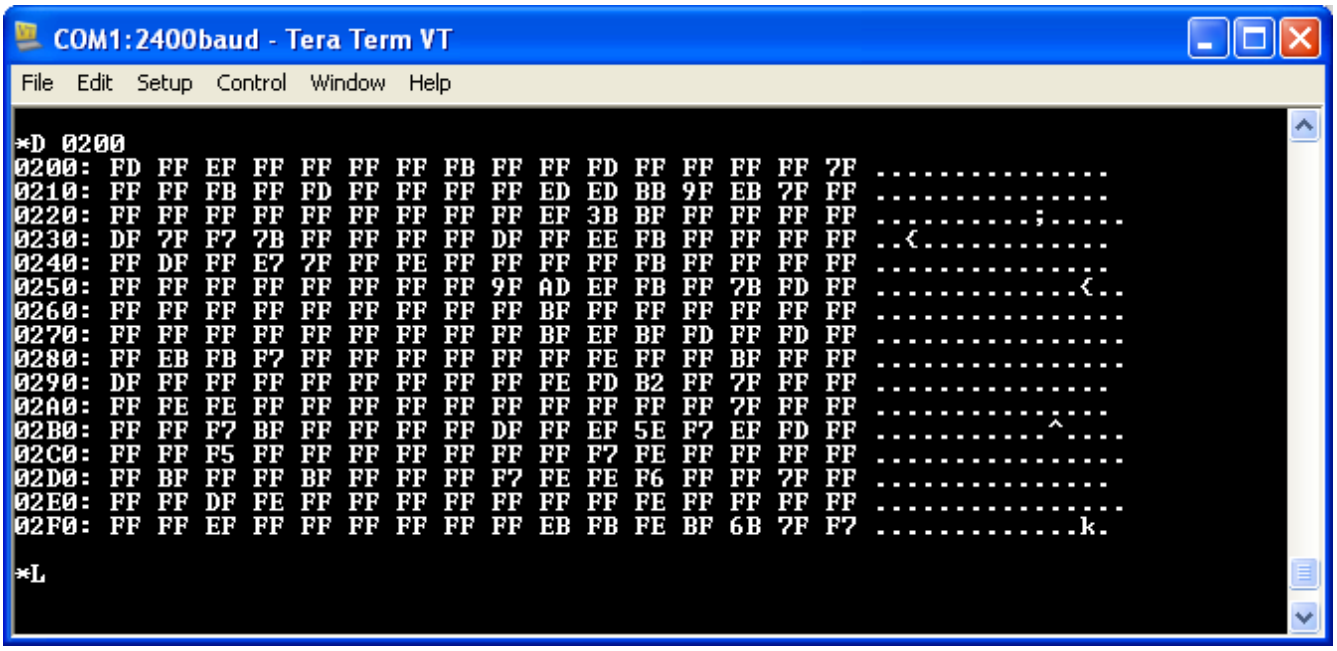
```
0001    0000
0002    0000              GPIO1    .EQU $8000
0003    0000
0004    0000
0005    0200               .ORG 200H
0006    0200
0007    0200 86 01                  LDAA #1
0008    0202 B7 80 00               STAA GPIO1
0009    0205 3F                     SWI
0010    0206
0011    0206                .END
tasm: Number of errors = 0
```

Test program Load Accumulator with 1 then write it to GPIO1 LED at location 8000, then return to monitor program with software interrupt.

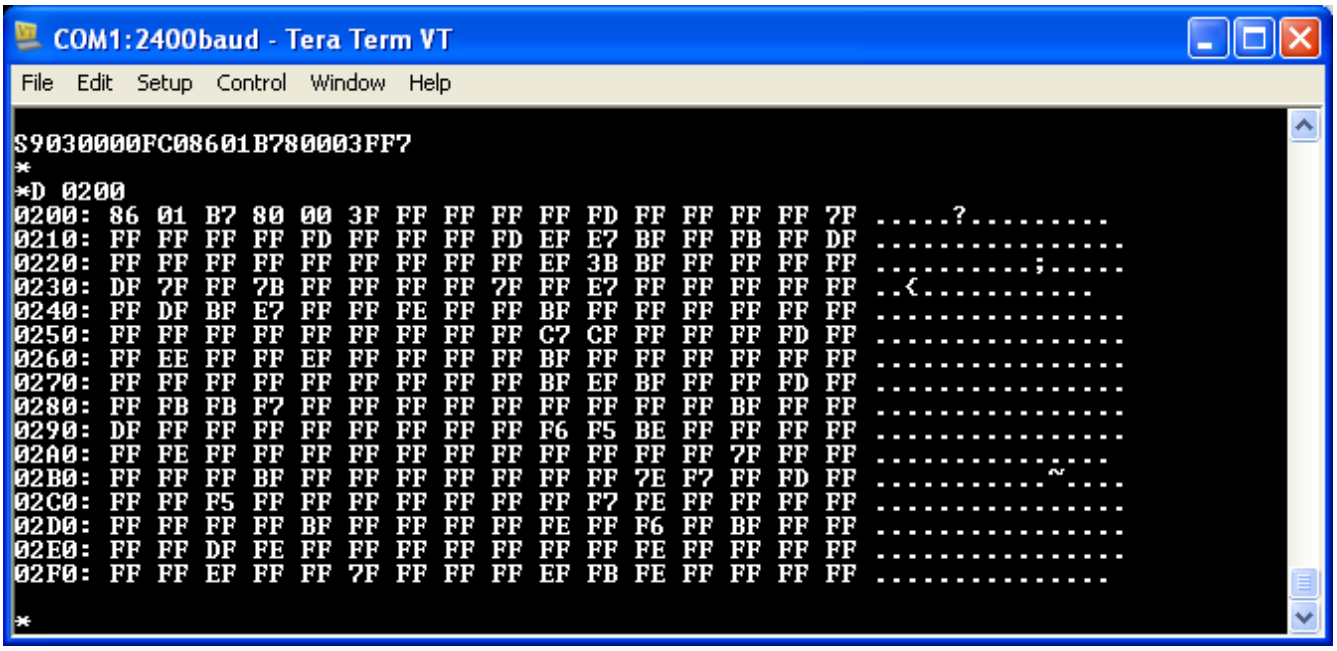
The s record generated from TASM assembler will be

S10902008601B780003FF7
S9030000FC

9. Run command L

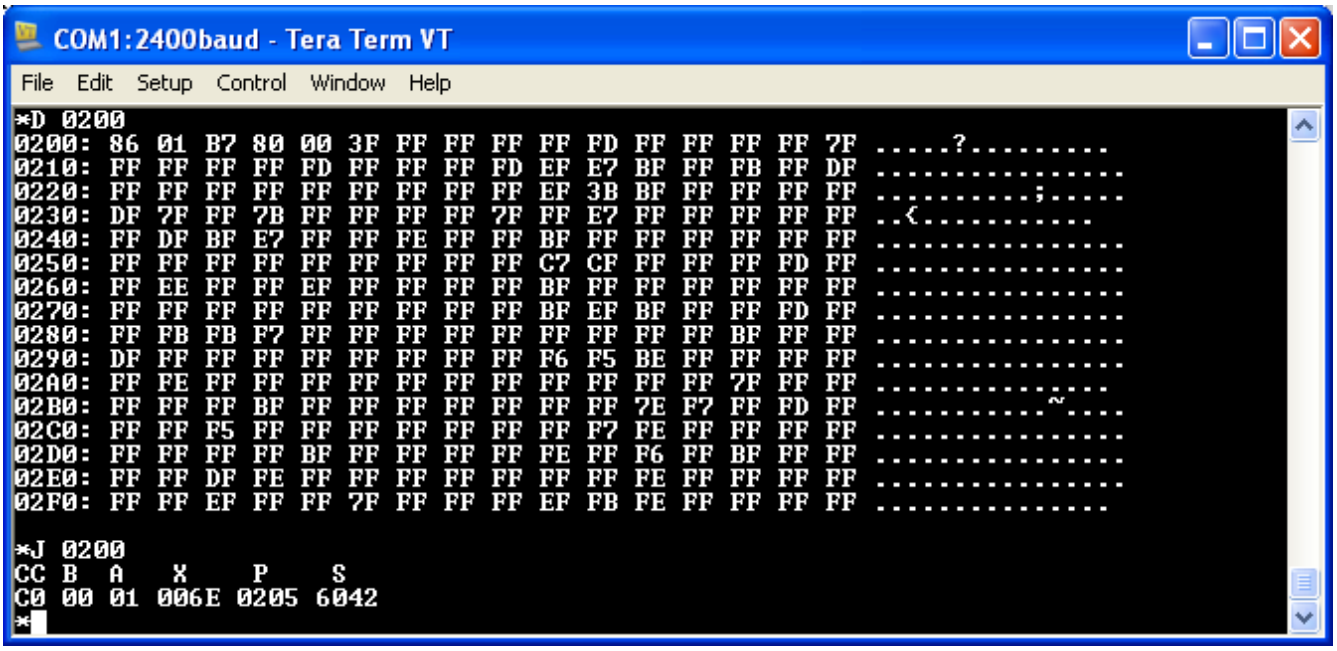


10. Click send File, select the object file, TEST.OBJ



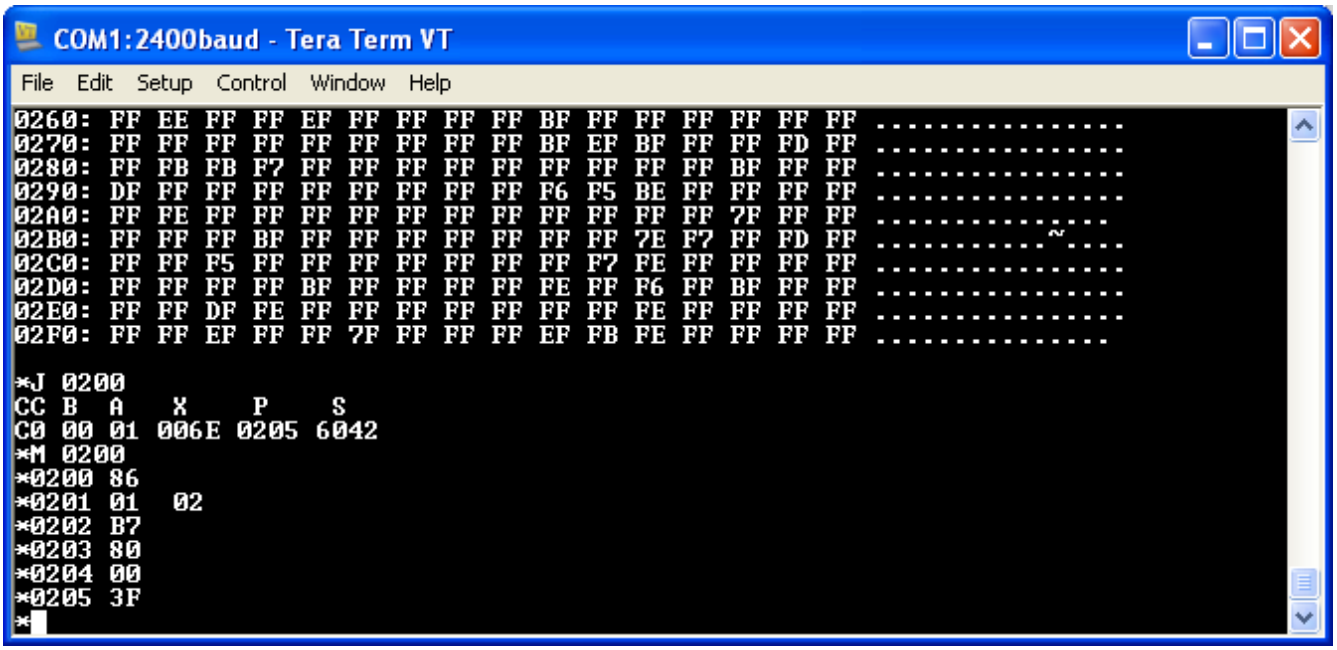
When loading complete, press command D 0200 to display memory. We will see the machine code of the test program are stored from location 0200: 86, 01, B7, 80, 00, 3F

11. Now test the code with command J 0200.



We will see the GPIO1 LED shows binary value 0000 0001. Accumulator A will be 01.

12. Try command M to modify the byte



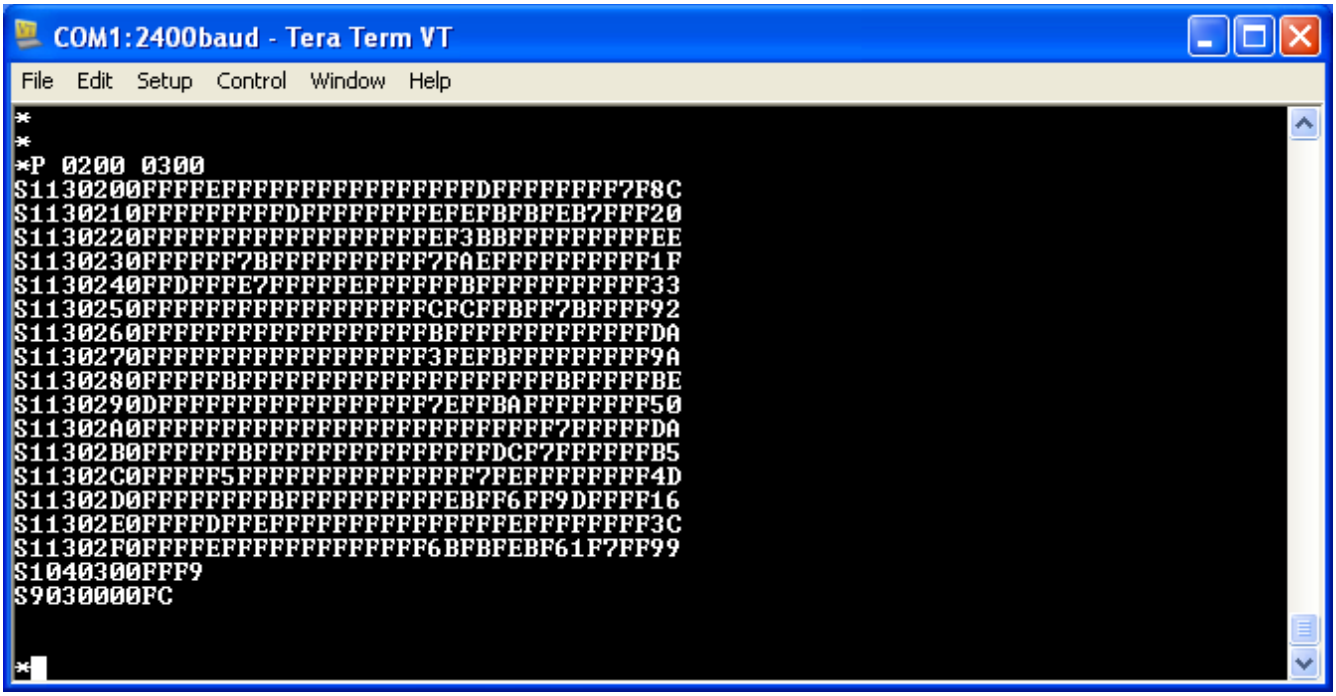
Enter M 0200

Modify the byte at 0201 from 01 to 02

When complete, Run command J 0200 again. We will see the binary data 0000 0010 on GPIO1 LED

13. Command P is for printing the s record.

For example, P 0200 0300, print s record from address 0200 to 0300.



This printing can be saved for later use by using Log command on the terminal.