PROGRAMMER ENC_PROGRAMMER
USER MANUAL FOR INTEGRATED CIRCUIT K1382HX045

IC Tuning with OWI Interface

The application *programmer_mrasic2.jar* with version 2.0.0 or later is used for tuning of integrated circuit with OWI Interface.

This application allows to:

- read values of IC registers;
- write values of IC registers;
- save IC EEPROM state to PC;
- load IC EEPROM state from PC;
- display state changes for some IC registers in real time.

The software package for IC K1382HX045 consists of:

- the application programmer_mrasic2.jar;
- FTDI drivers pack;
- the present User Manual.

These conditions are necessary to use the application:

- installed JAVA Runtime Environment with version 7 or later (http://www.oracle.com/technetwork/java/javase/downloads/index.html);
- installed FTDI drivers with version 2.08.17 (included in this software package). To install drivers to Windows x86 (32 bits architecture operating system), run the script FTDI_drivers_setup_win_x86.cmd. For other operating systems please install drivers manually.

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Work with the application programmer_mrasic2

1. Connect the programmer ENC_PROGRAMMER with IC and PC according to scheme on fig. 1. Wait until the name of programmer will appear in the connected devices list and the status bar in the bottom part of application window (fig. 2) will contain a message about a successful connection.
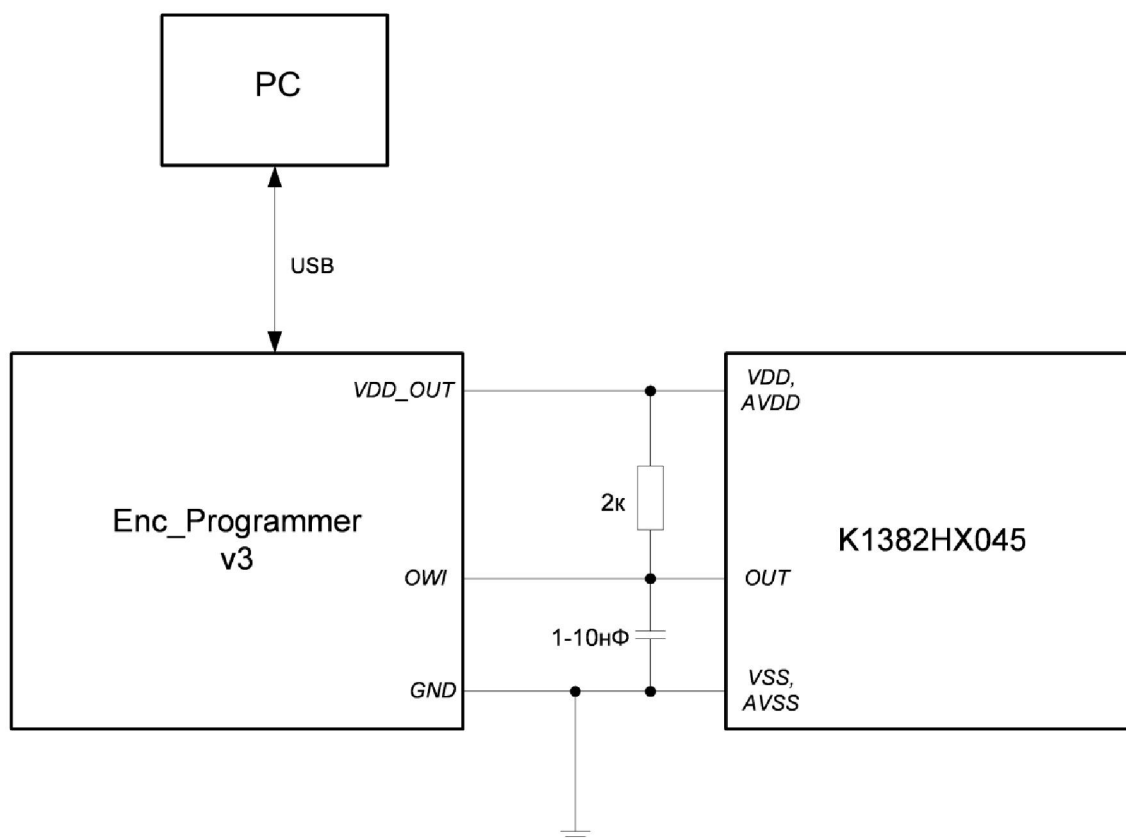

Fig. 1. IC Connection to Enc_Programmer by OWI Interface

2. Run the programmer.
   1) Do one of next actions:
      a)   Select the menu item "Programmer / Start programmer";
      b)   Press keyboard shortcut "Ctrl + S".
   2) Wait an informational message about start/error in the status bar. Continue work in case of successful start of the programmer. Otherwise repeat par. 2 or 1-2.
3. Perform tuning of the IC.

Read register

1) Select a required register in the register list in the left part of the application window.

2) Do one of next actions:

    a) Press the button "Read";

    b) Select the menu item "Programmer / Read";

        i) Press keyboard shortcut "Ctrl + R".
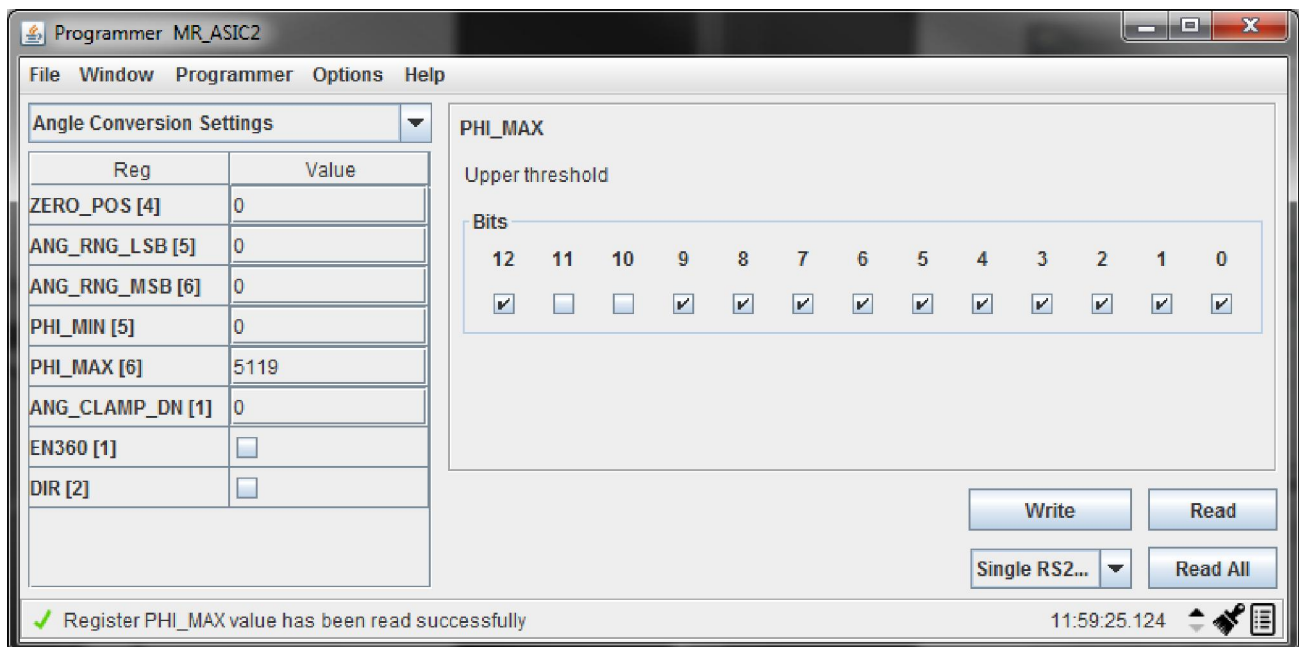

Fig. 2. The main window of programmer_mrasic2

Read all registers

1) Do one of next actions:

    a) Press the button "Read all";

    b) Select the menu item "Programmer / Read all";

    c) Press keyboard shortcut "Ctrl + A".

Write register

1) Select a required register in the register list in the left part of the application window.

2) Set the register value by setting/clearing of required bits in the main part of the application window.

3) Do one of next actions:

a) Press the button "Write";

b) Select the menu item "Programmer / Write";

c) Press keyboard shortcut "Ctrl + W".

Save IC EEPROM state

1) Select the menu item "File / Save".

2) Choose a file name.

3) Press the button "Save" in the dialog window.

Load IC EEPROM state

1) Select the menu item "File / Open".

2) Select a required file with format *.eeprom in the opened dialog window.

3) Press the button "Open" in the dialog window.

View state changes for some IC registers

1) Open on of windows for visualization of registers state.

a) Window "Plot" (fig. 3):

- Select the menu item "Windows / Plot";

- Press keyboard shortcut "Ctrl + 1".

Fig. 3. The "Plot" window

b) Window "Angles" (fig. 4):

- Select the menu item "Windows / Angles";

- Press keyboard shortcut "Ctrl + 2".

2) Press the button "Start" in the opened window.

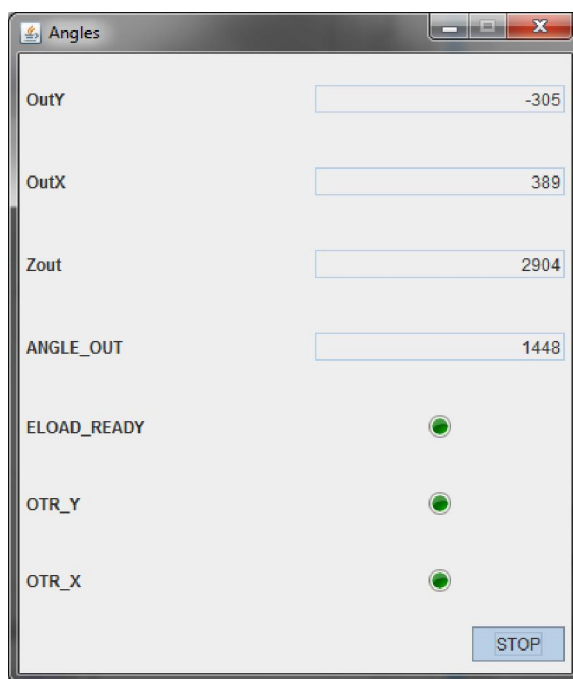3) To stop process of data reading press the button "Stop".

Fig. 4. The "Angles" window

4. Switch off power of the IC after stop working with the programmer by selecting the menu item "Programmer / Stop programmer".

Notes:

- Some IC registers may be available only for read.

- If read/write error occurs, a table cell of a corresponding register will turn to orange color.

- Set values of IC registers will be updated in the IC EEPROM only after switch off and switch on power to the IC.

- The button "Start" / "Stop" in the windows "Plot" and "Angles" runs/stops process of data reading and real time displaying of IC EEPROM state for both these windows simultaneously.