Application Note

Tuner Test Setup (Hardware/Software)

1. Hardware Setup

Please follow these steps setting up the I2C Interface board to control the tuner.

- Connect the I2C interface board to the LPT1 port of your PC/Notebook. We strongly recommend using Flat Ribbon Cable in order to avoid cross talk. The total length of the connection between the PCB and LPT1 should not exceed 2-3Feet.

- Connect all required voltages, ground connections and any other connections required and marked on the PCB.

- Turn on the PC/Notebook and all required voltages.

- Load the software as described in part **2.** below.

At this time you should be able to control the tuner via your PC.
If you receive an error message, please check the presence and accuracy of all connections. Should problems persist, do not hesitate to call the following phone numbers for immediate support.

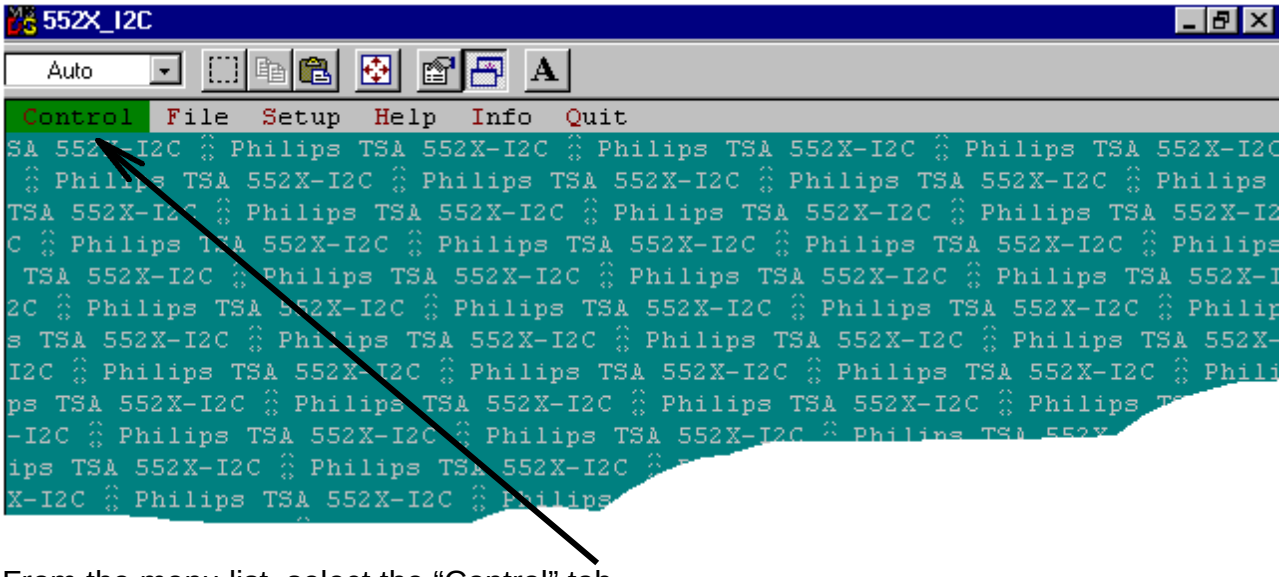
(256) 461 7894 / Huntsville, AL
(972) 756 0302 / Dallas, TX

2. Software Setup

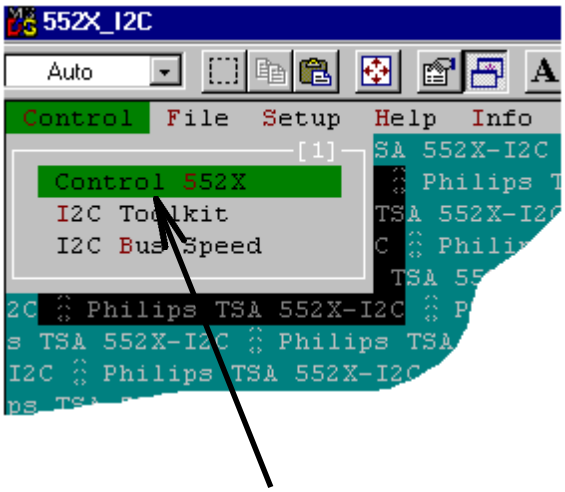
The software provided to evaluate the tuner does not require any installation. It can be simply operated from the diskette or any directory it was copied to.
In order to run the program, all voltages and I2C connections have to be present. In case of an error message please check all connections, voltages, grounding and wires for possible errors.

To start the program, click on the “Start I2C Software” icon in your file browser.

When prompted hit enter on your keyboard until the following screen appears.

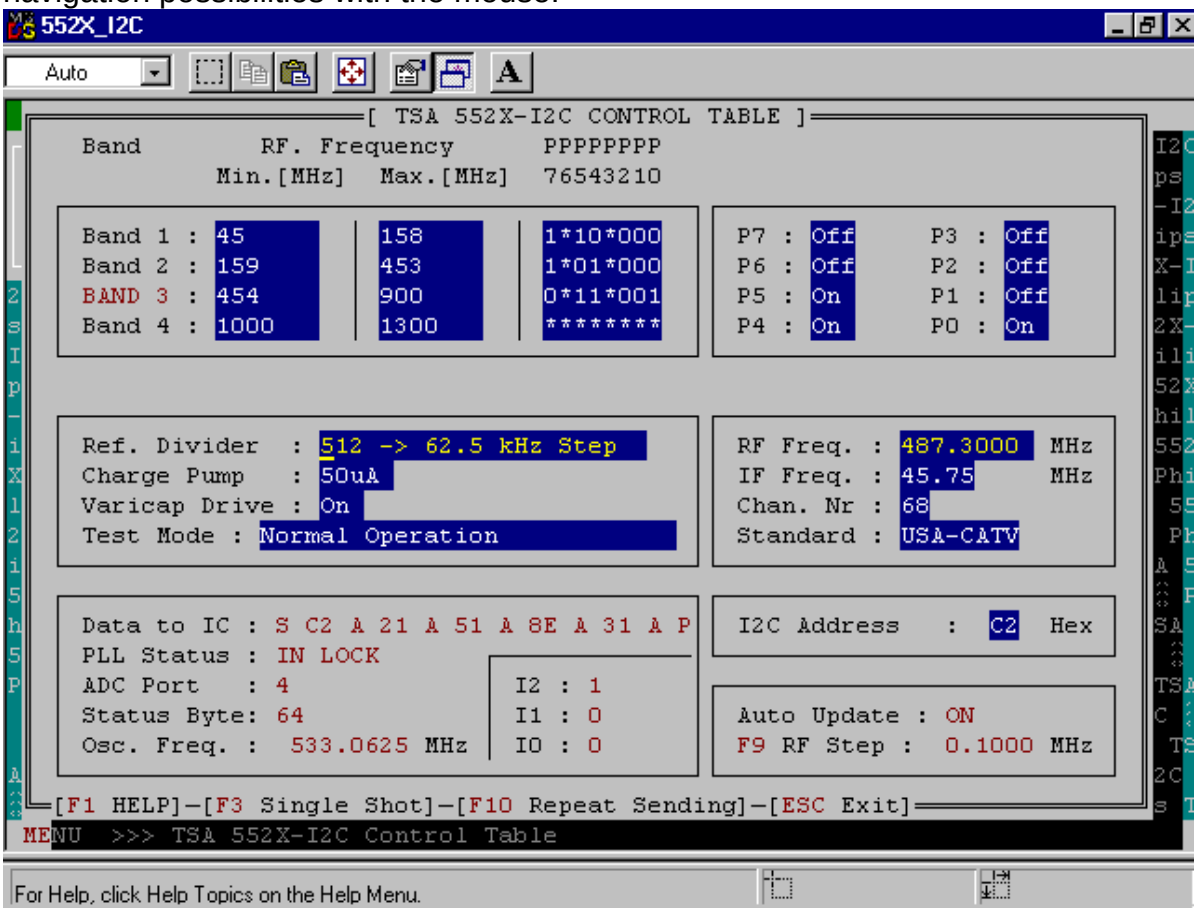


From the menu list, select the “Control” tab.

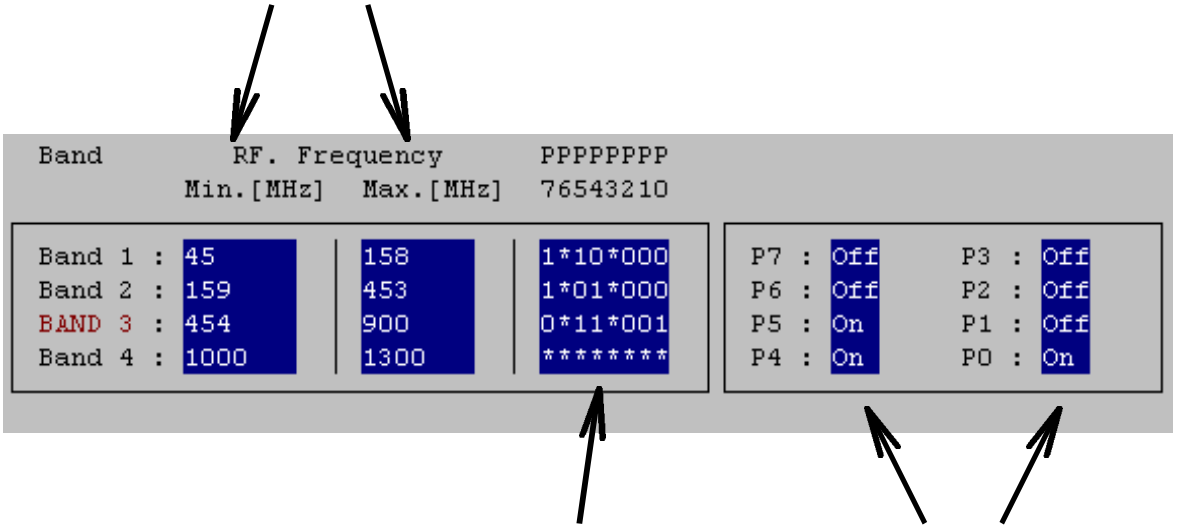


Select the “Control 552X” item on the drop down menu.

The above selection will take you to the final control page. You will be able to select and control every parameter with the mouse. The Help section (F1) has some basic description on the navigation possibilities with the mouse.



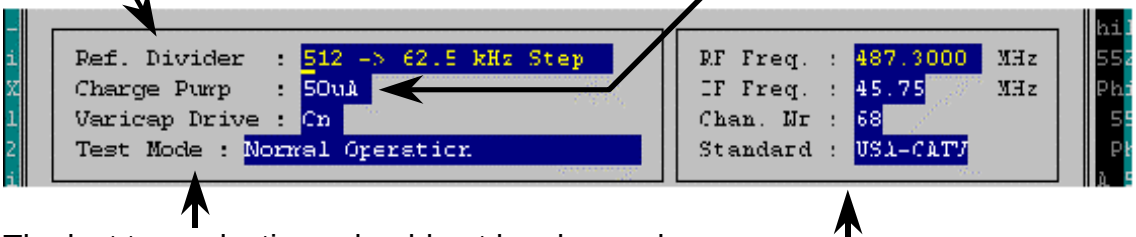
Band Limits can be set in the first two columns.
Standard setup should not require any changes to these fields.



This column is used to change the port settings if required. The last two columns will only indicate the state, the change will have to be made in the column before.

The step size can be selected in this field.

This field lets you increase the charge pump current for faster settling times. It should be set to 50uA after the PLL is locked for better Phase Noise performance.



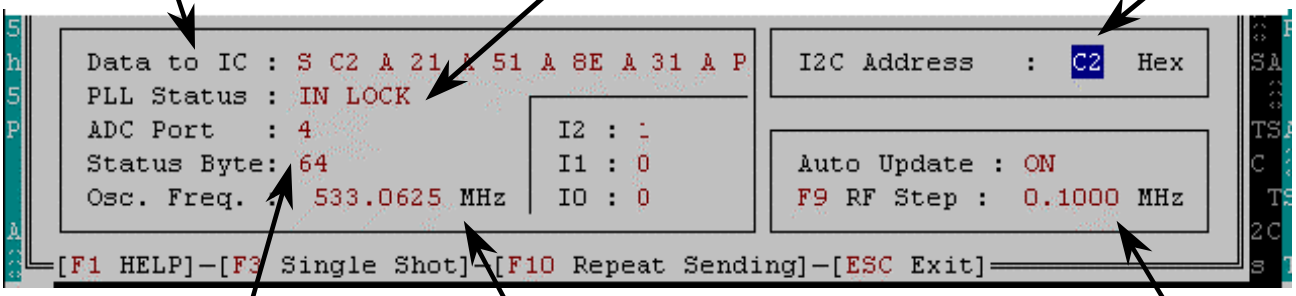
The last two selections should not be changed.

RF Frequency, IF Frequency, Channel Number and Reception Standard can be selected here. Please bear in mind that only the according tuner type will be able to receive the corresponding Reception Standard. The IF Frequency will be automatically selected in that case.

Displays the actual HEX data that is sent to the tuner.

This field will show you if the information was received by the PLL and the tuner is In Lock.

The Address that is selected.



Select the Step Size here. The Frequency can be increased or decreased by the number selected.

Information read from the PLL is displayed here.

The Oscillator Frequency for verification.
($F_{Osc} = F_{IF} + F_{RF}$)