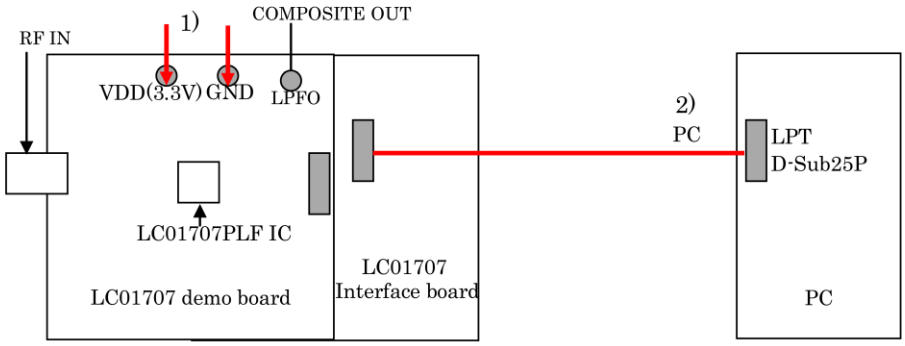
Test Procedure for the LC01707PLFGEVB Evaluation Board

LC01707PLF controller manual:

1. How to connection

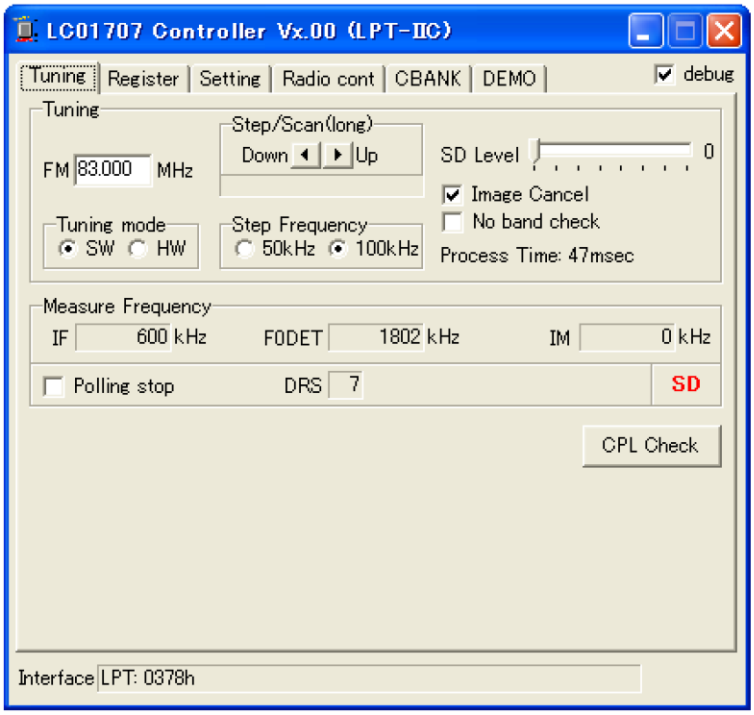
1) Power Supply voltage of 3.3V
2) Connected to an exclusive cable between parallel port and interface boards



2. How to start of controller

•Defrost an LC01707ControllerVxXX.zip file

•Double-click LC01707Controller.exe file
When normalcy works, a [Tuning] screen opens.

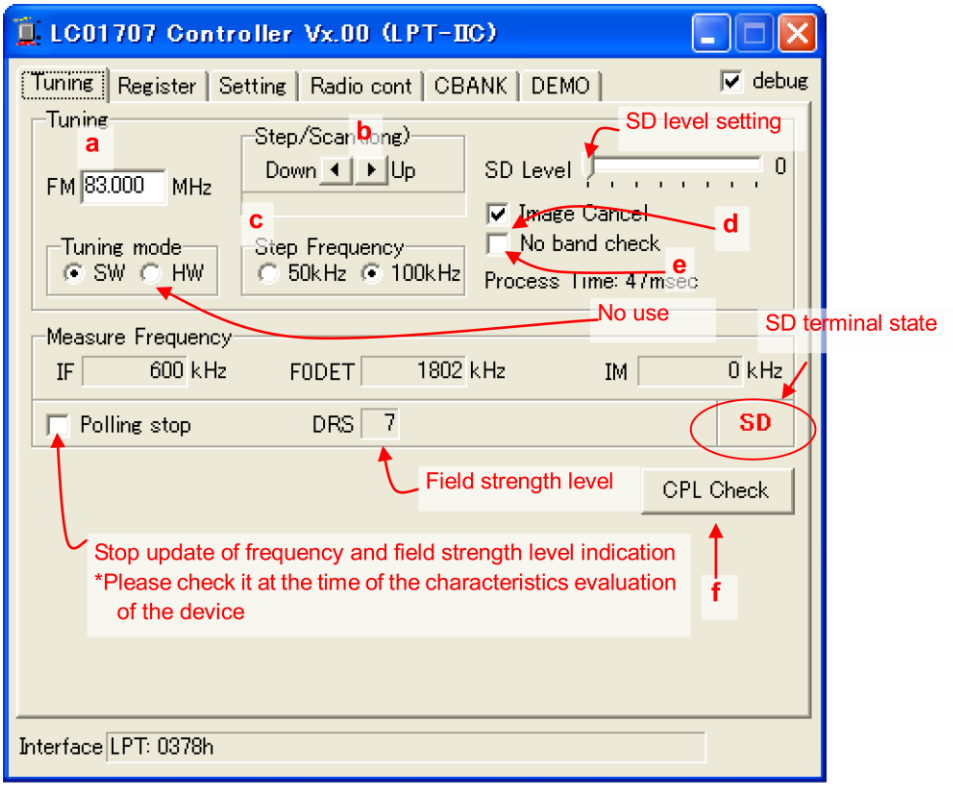


When the next message is given, please reconfirm connection and power supply.

3. Description of all parts

- [Tuning] tab

Frequency setting and confirmation are possible.



a. Tuning
It input frequency and am tuned up with the enter key

b. Step/Scan
Short push : 1step tuning Long push : scan tuning

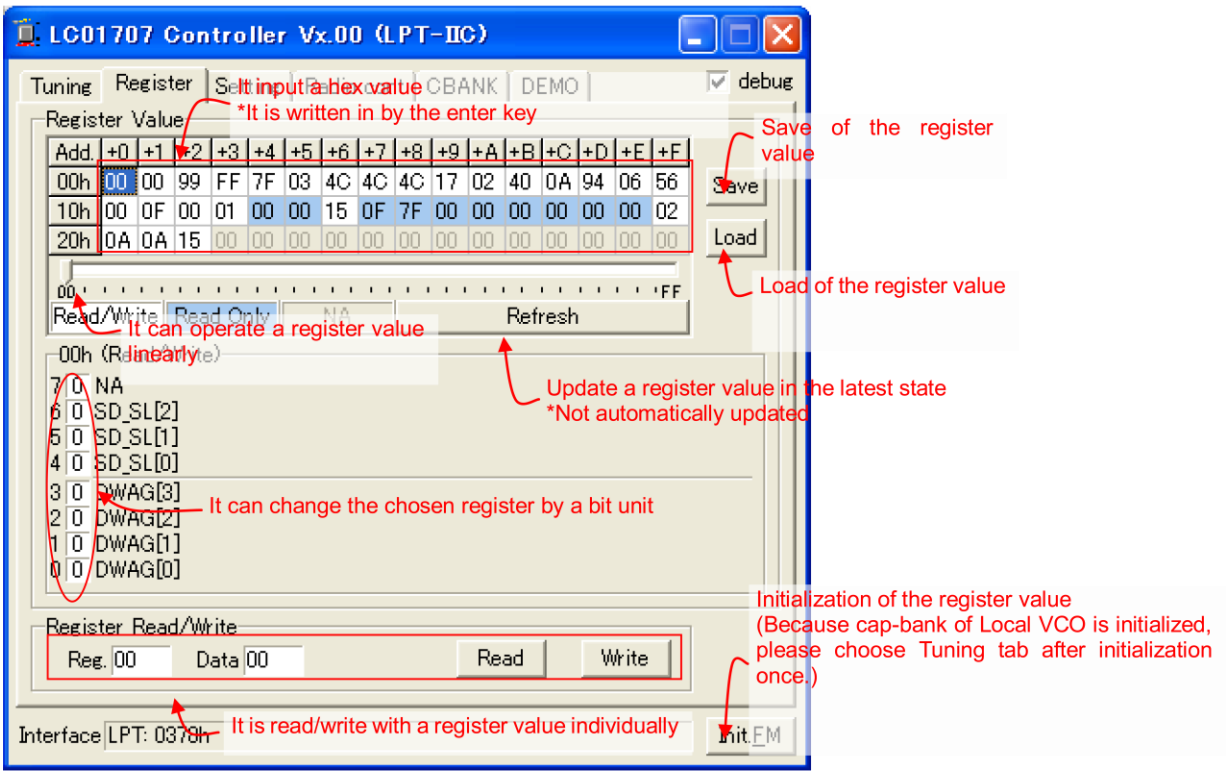
c. Step Frequency
Choose step frequency
*The step frequency of the Reg.02h(DFSEL) setting is 50kHz fixation

d. Image detection change ON-OFF check box
No check . . . Automatically image detection OFF
Check . . . Automatically image detection ON

e. Reception band limitation ON-OFF check box
No check (Normal) . . . Reception Band is 76MHz – 90MHz
Check (For Debugging) . . . The reception frequency range becomes same as VCO movement range

f. CPL Check button
You can confirm a CP terminal voltage form IIC by clicking it

• [Register] tab
Direct read/write can do a register value



4. How to end of controller

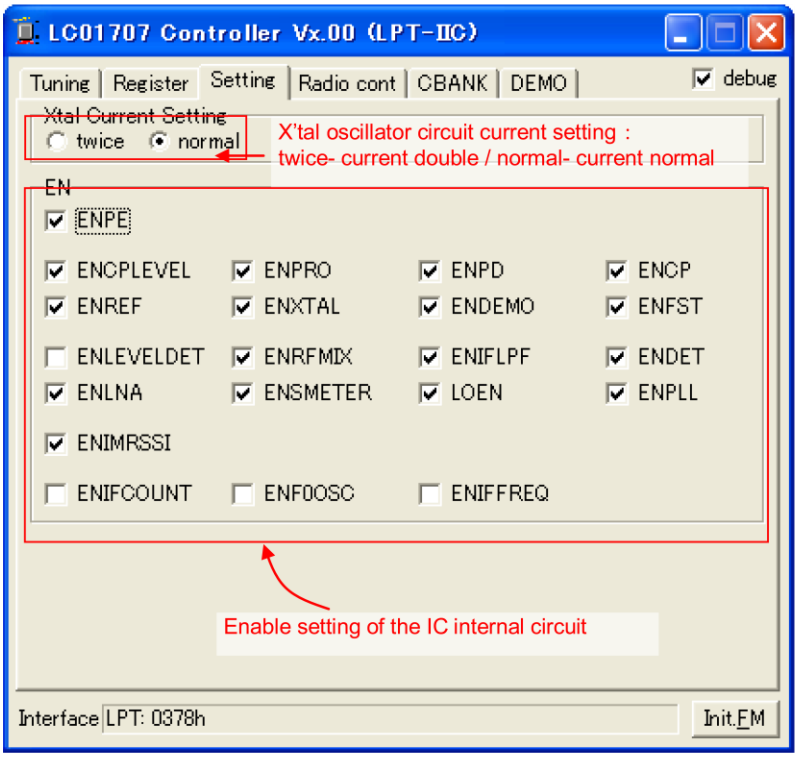
Please click ☒ button of the window top right corner

5. How to un-installation

Please delete the folder which you made with section 2.

6. Description of other tabs

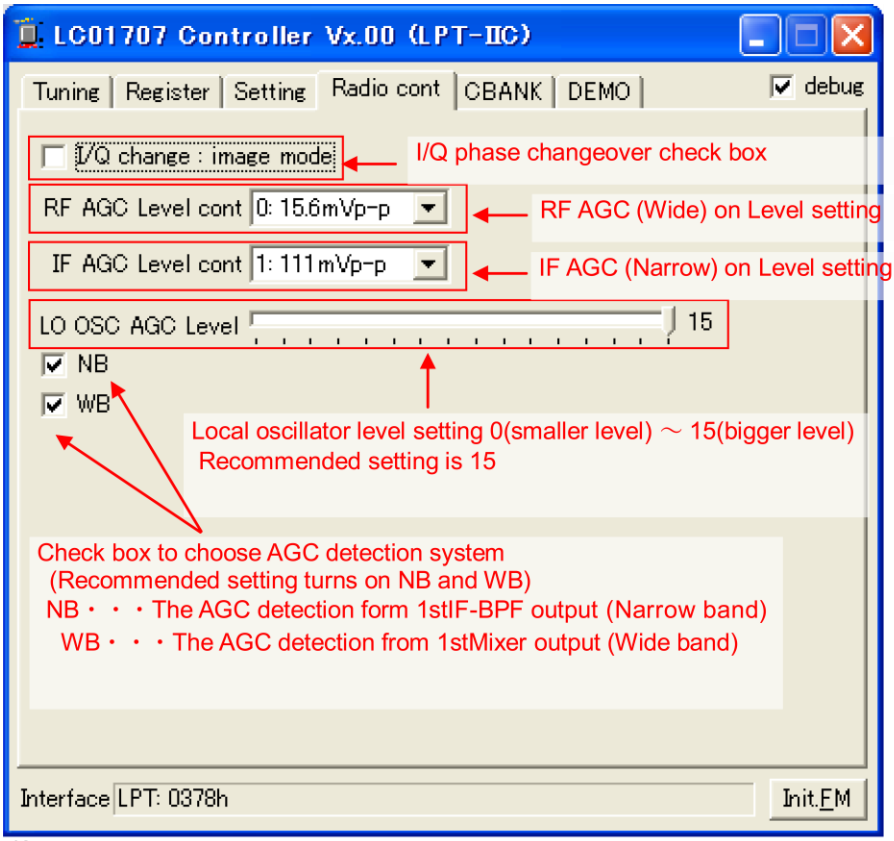
• [Setting] tab



About IC internal circuit enable setting

- ENPE . . . Whole circuit enable
- ENCPLEVEL . . . Charge pump level comparator enable
- ENPRO . . . Program counter enable
- ENPD . . . Phase comparator enable
- ENCP . . . Charge pump enable
- ENREF . . . Signal meter enable
- ENXTAL . . . X'tal oscillator enable
- ENDEMO . . . Demodulator enable
- ENFST . . . BPF and IF-AGC block enable
- ENLEVELDET . . . No use (OFF)
- ENRFMIX . . . RF-Mixer enable
- ENIFLPF . . . IF-LPF enable
- ENDET . . . Wide-AGC and Narrow-AGC enable
- ENLNA . . . LNA block enable
- ENSMETER . . . Reference counter enable
- LOEN . . . Local oscillator enable
- ENPLL . . . PLL block enable
- ENIMRSSI . . . X'tal oscillator circuit current setting enable
- ENIFCOUNT . . . Analog block frequency counter enable (IF counter), only at the time of scan
- ENF0OSC . . . f0 detection oscillator circuit enable, only at the time of setup and initial tuning
- ENIFFREQ . . . Logic block reference clock enable

• [Radio cont] tab

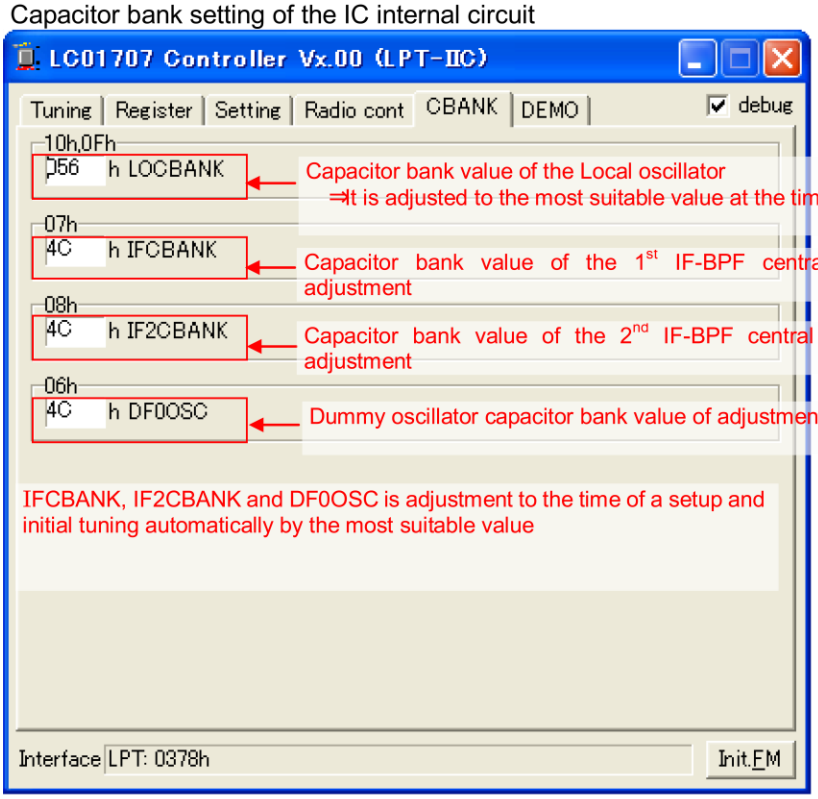


I/Q phase changeover check box . . . No check : Upper reception,
Check : When an imege frequency exists, it change to the Lower reception

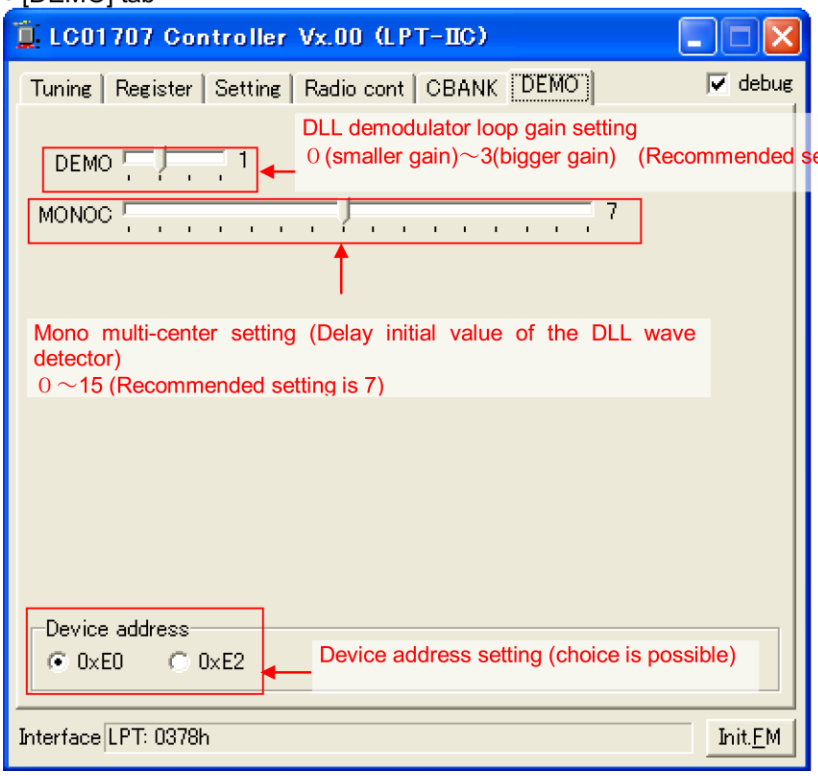
Please refer to Page 7 for the detailed movement of I/Q phase changeover check box.

• [CBANK] tab

Capacitor bank setting of the IC internal circuit



• [DEMO] tab



7. About an image detection change

The function of the image detection Upper/Lower change ON/OFF check box of Screen 1 is as follows.

When you checked it . . .

When an image detection function is ON, a Local oscillation changes to Upper or Lower automatically according to an image disturbance situation.

When there is no check . . .

An image detection function is turned off, and is not concerned with the existence of image disturbance, but usually becomes Upper reception.

When changing to Lower reception compulsorily, if the I/Q change check box of Screen 2 is turned on and it changes to the Tuning screen of Screen 1, it will not be concerned with the existence of image disturbance, but will become Lower reception.

If the I/Q change check box of Screen 2 is unchecked and it changes to the Tuning screen of Screen 1 also when changing from Lower reception to Upper reception, it will not be concerned with the existence of image disturbance, but will become Upper reception.