

## Using Elecraft KX3 with HSDR

### **Hardware requirements:**

- Elecraft KX3
- KXUSB cable (or KXSER)
- 2.5mm **stereo** male to 3.5mm **stereo** male cable
- PC with 1GHz CPU, WindowsXP or newer, Stereo Soundcard with "Line-In Jack"

### **Software requirements:**

- FTDI VCP driver for KXUSB cable: <http://www.ftdichip.com/Drivers/VCP.htm>
- HSDR 2.63 or newer: <http://hdsdr.de>
- Omni-Rig <http://dxatlas.com/Download.asp>  
(free software created by Alex Shovkoplyas (VE3NEA) for transceiver/receiver CAT control)

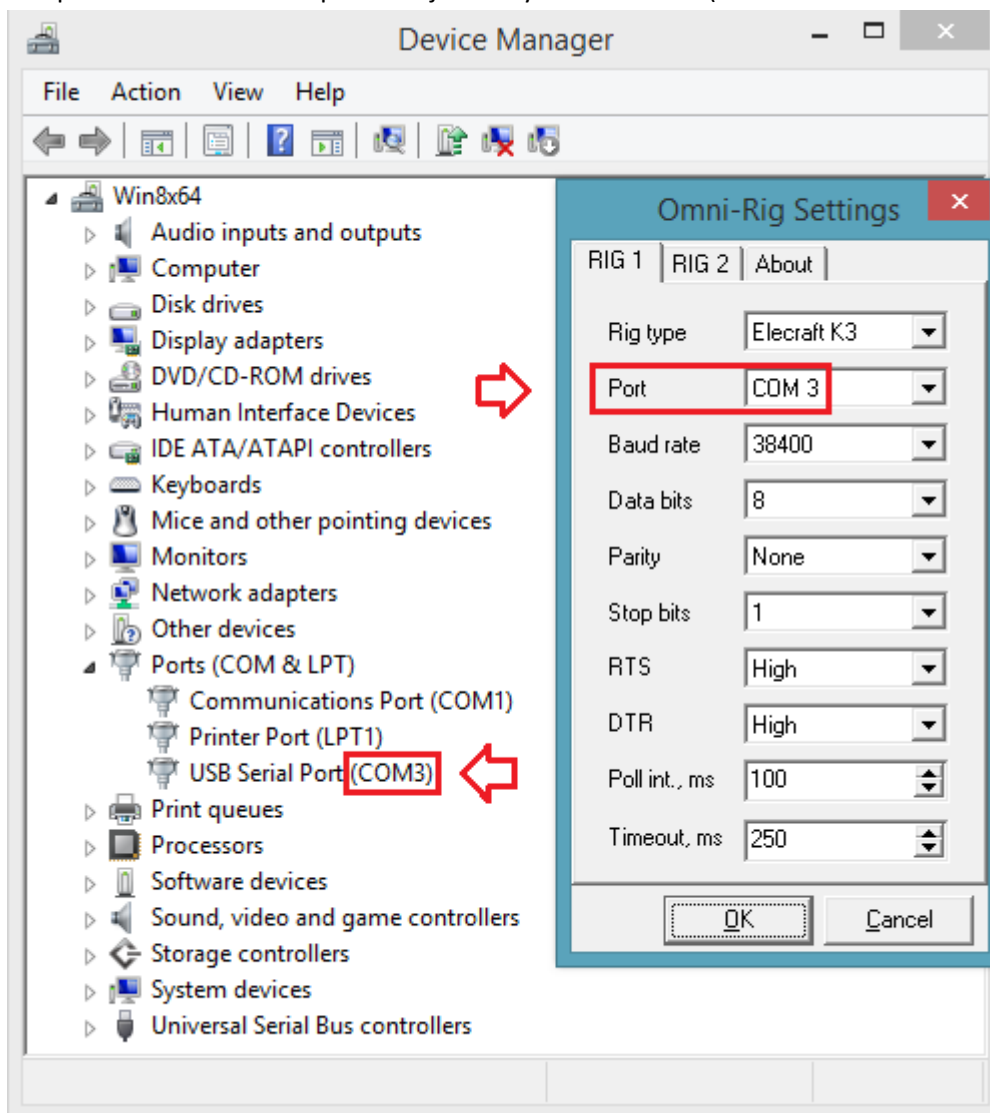
### **KX3 Menu settings:**

- RS232: 38600 b (you can use any other value, but use the same in Omni-Rig)
- RX I/Q: On

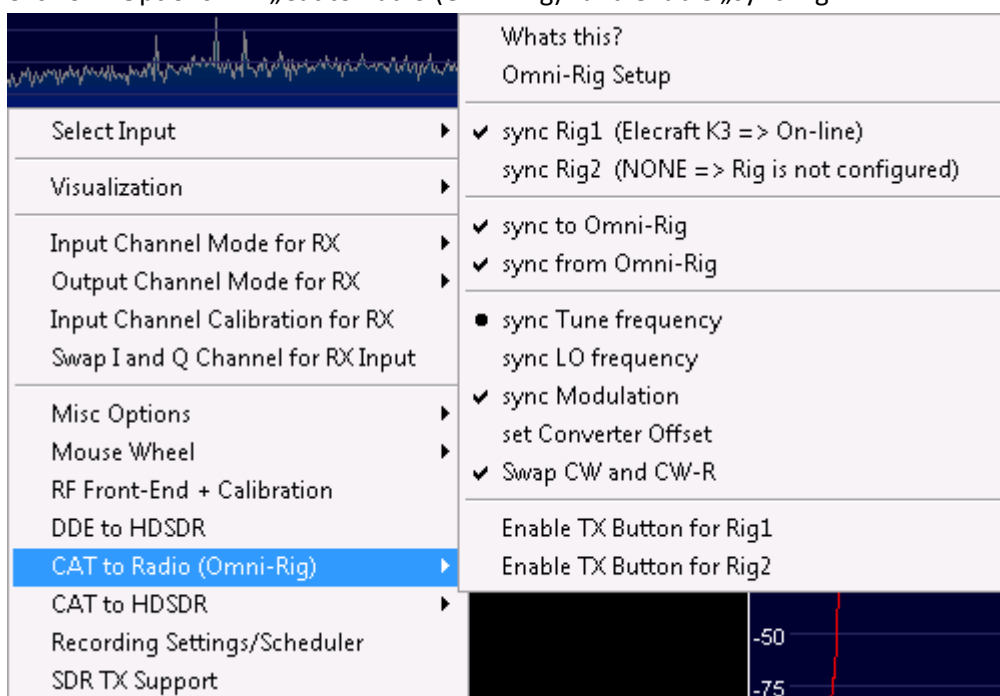
### **Installation:**

1. Plug in the KXUSB cable and install the FTDI driver
2. Plug in the audio cable from KX3 I/Q output to the PC soundcard (line in)
3. Install [HSDR](#) v2.63 or later
4. Install [Omni-Rig](#)
5. Start HSDR and select your soundcard, which is connected to the KX3's I/Q output

- Click on <Options> → „Cat to Radio (Omni-Rig)“ → „Omni-Rig Setup“  
See picture below for setup and adjust for your COM Port (see Windows Device Manager)



- Click on <Options> → „Cat to Radio (Omni-Rig)“ and enable „sync Rig1“



- Click on <Options> → „RF-Front-End + Calibration“. Copy the settings from the picture below. Ignore the 10.7 MHz IF-frequency, which is not used for Soundcard input as with KX3

### RF front-end frequency options & Calibration

#### SDR hardware coupling

SDR hardware connected to antenna (default)

SDR on IF output, which is controlled by Omni-Rig ▼

Sync Mode

Full sync in both directions

Independent Tune in HSDR

Independent Tune, but sync on external change

IF-frequency:  [Hz]      Global Offset:  [Hz]

Additional Offset per Mode in Hz

AM	FM	LSB	USB	CW_U	CW_L
-11000	-11000	0	0	600	-600

Mirror RF Spectrum in general

Mirror RF Spectrum for Tune >=  kHz

operate CW in lower sideband (LSB)

Swap CW and CWR for Omni-Rig

SDR hardware on Down/Up-Converter  
LO Frequency of Down/Up-Converter in Hz:

SDR hardware in undersampling mode  
Samplerate of Analog-Digital Converter in Hz:

#### LO frequency calibration

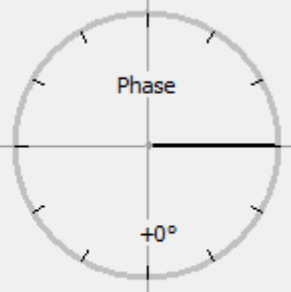
Current Tune Frequency [Hz]      Correct Tune Frequency [Hz]

Frequency correction: **+0.00 ppm**

Hint: Tune to a station with known frequency as reference, e.g. a WWV or RWM time signal. Use ECSS mode to automatically tune the reference carrier exactly. Use highest possible frequency for best calibration results.



Phase

+0°

- You are ready to run! (press Start)

