

HiDes HV-310/320 Transmitter Set up for Custom Channel Frequencies

From Mel, KOPFX

Like the companion HiDes receivers, the Transmitters/Modulators have Channel (Frequency) selection using the OSD remote and/or Front Panel pushbutton switches (HV-320E only). However, to make use of these channel controls AVSender software must be used to edit a table and add frequencies we use for ATV. Several steps are required to accomplish this. The Transmitter's Quick Start Guide (QSG) describes the procedure but must be followed closely to load and save the frequency table. Once done, it is easy to change frequencies versus having to execute the AVSender software.

Go to the QSG for your transmitter and follow along under the "Custom Channel Frequency Channel Table" chapter. The QSG pdf file should be found in your folder with the AVSender and other associated HiDes transmitter files.

To edit the DVB-T Channel Table:

- 1 – Execute AVSender software. Use the defaults. Use *Auto Connect* if you do not know what USB to Serial port will connect. Once connected, click on *Open* and then *Get All Config*. All the fields should now be loaded with data from your transmitter. Go to the screen shots in the QSG pdf.
- 2 – Ignore the first two pdf screens – these will not apply. Just be sure the *DVB-T* radio button is selected (default). Never use ISDB-T !
- 3 – Go to the *Transmission Config* Tab Channel Table and change to *User Defined* as shown in the 3rd screen. Click on *Set Config*. Next, click on *Edit User Channel Table*. A small window should pop up showing a blank DVB-T Channel Table.
- 4 – Click on *Get* at the top of the blank Channel table. The DVT table should then be loaded with 0-119 frequencies (just like the receivers table).
- 5 – Double click on the first *Channel (0)* and change it to the repeater input frequency 440000 (no decimal) and Bandwidth to 4 MHz. Click *OK*. The changes will be shown in red. Note edit is not saved, yet.
- 6 – Go back to the table and click on the next channel (*1*) and change it to the repeater output frequency 426000 and Bandwidth to 4 MHz. Click *OK*. The changes will be shown in red. Note edit is not saved, yet.
- 7 – Go back to the table and perform same operation for 428000, 434000 and 436000. These are optional frequencies that could be used for simplex. 438000 should not be used because it is an AMSAT satellite frequency.
- 8 – After the frequencies/BW have all been entered (all will still be in red), click on *Set* on the right side of this same DVB table. Two "save" processes will be done. Wait a few seconds before proceeding! The frequencies are now saved and all the new entries will be in black indicating the edit was performed correctly.
- 9 – Now, the table changes should be saved. Click on *Save to file* to export. File will be in your HiDes directory where the AVSender.exe is located. Use the default files name *CustomChannelTable.txt*. The changes are embedded in the firmware of the transmitter but can be re-loaded if ever needed for editing. Multiple files may be made for different set of frequencies. Just use the *Get* from file tab. Different files will need to be saved with unique names. Even though it is just a plain text file, it should not be edited by program editor because AVsender also makes a binary associated with the editing procedure.
- 10 – In the *Transmission Config* tab, click on *Set Config*.

11 – Under the *Transmission Configuration > Channel #(0 for manual config)* field will show [000] CH00 and the Channel Table will show *User defined*.

12 – To confirm the new channel selections can be made before closing AVSender, use the *Channel#(0 for manual config)* then click on the down arrow and select *Channel 01* (this should be 426.000 MHz). The *Frequency (KHz)* will change from 440000 to 426000. Transmitter LED display will change from 00 to 01 -after- clicking on *SetTransConfig*. Now use the OSD channel button (HV-110) or the CH+ button to change the frequency. Hold down the button for only about a second otherwise it may quickly jump to the higher or lower channels. There is a little “latency” with these buttons before the channel is changed. Every change requires a cpu “process” to get it done. **CAUTION:** Watch the power meter/SWR meter while changing channels. If it goes to a 0 or a high SNR, then transmitter is on the wrong channel! Quickly get it on the right frequency! Keep the HiDes receiver out of view of the OSD remote controller when changing channels or when using the on/off for the transmitter (upper left button on remote)! The on/off button for the transmitter will toggle OFF/ON the transmitter’s amplifier but it will also return the receiver to its defaults!
Put a label on top of your transmitter and receiver showing the correlation between the Channel Number and Frequency.